

Delaware: A Historically Great American University

Draft November 2016

G. J. Kauffman
University of Delaware
Newark, Del.
jerryk@udel.edu

Delaware: A Historically Great American University

Historic Legacy

As one of just two land grant institutions with colonial roots that predates all but two Ivy League schools, Delaware is a historically great American university. By some accounts the 8th oldest college in America, the University of Delaware traces its beginning to the Newark Academy (est. 1743) founded three years before the College of New Jersey (Princeton), eleven years before Kings College (Columbia University), and twelve years before the charter of the Academy of Philadelphia (University of Pennsylvania). During the First Great Awakening when congregations pushed for emerging beliefs in science, democracy, and the free press; the Presbyterian Synod appointed Francis Alison as master of the Newark Academy, a school he founded in 1743 in New London, Pennsylvania. Nine years later, Benjamin Franklin recruited Reverend Alison to be rector and later vice provost of the Academy of Philadelphia, a school that became the University of Pennsylvania. In the years before the American Revolution, the President of Yale called Alison “the greatest classical scholar in America especially in Greek.”

In 1769, two years after the Academy moved a few miles south to Newark in the three lower counties of Pennsylvania, Lieutenant Governor John Penn of Pennsylvania signed the Newark Academy charter which was later joined with the charter of New Ark College in 1833. Four students of Francis Alison and Newark Academy signed the Declaration of Independence in 1776, Thomas McKean and George Read from Delaware and Benjamin Rush and James Smith from Pennsylvania. John Maclean, the tenth President of Princeton, wrote that the Newark Academy was a school where the course of work was better than or comparable to the College of New Jersey (Princeton) and equal to the curriculum delivered by Harvard and Yale (Ryden 1935).

The historic British march from Chesapeake Bay through the Newark Academy to the Battle of the Brandywine was memorable to the residents of the “Athens of Delaware.” On September 8, 1777, five days after Delaware’s only Revolutionary War battle at Cooch’s Bridge on the Christina River near Iron Hill, the British broke camp by the “light of a remarkable borealis”. As Edward Cooch (1940) wrote, “at quarter past seven they (the British) passed through Newark ... north on Academy Street, east on Main Street at the Newark Academy, north on Chapel Street, crossing the White Clay Creek into Mill Creek Hundred.” Elliott Hall on 26 East Main Street, now a University of Delaware building, is the only remaining structure in Newark that stood in 1777. When the British marched past the Academy Building on Main Street in Newark, cobblers in the shoe factory there fired with no casualties. The Newark Academy Trustees sent their funds to Wilmington but Delaware President Thomas McKean wrote to General Washington that the British seized these assets from a ship anchored in the Delaware River. The mascot of the University of Delaware is the state bird, the "Fightin' Blue Hen" named after the tenacious Delaware Continental regiments who fought with George Washington against the British at Long Island, Trenton, and Princeton.

New Ark College opened as a degree-granting institution in 1834 and was renamed Delaware College in 1843. Abraham Lincoln signed the Morrill Land-Grant Act on July 2, 1862 which sold 30,000 acres of Federal land per state to create a system of land grant colleges to teach agriculture and the mechanical arts (engineering) to each state’s citizens. Delaware College closed during the Civil War but reopened in 1870 as one of just 36 land grant colleges in the United States. In 1887, Grover Cleveland signed the Hatch Act that provided Federal grant funds to build agricultural experiment stations at land grant colleges like Delaware. In 1914, Woodrow Wilson signed the Smith-Lever Act that dedicated federal funding to cooperative extensions at land-grant schools to translate research and instruction to the citizens through public service. In 2008, Joseph R. Biden was elected as the 47th Vice President of the United States of

America. In 2014, the University of Delaware celebrated the 100-year anniversary of the 1914 Smith-Lever Act that authorized the Cooperative Extension System. That same years, UD also celebrated the centennial of the Women's College that opened in 1914 with 58 students and was later joined with the men's college in 1921 to become the University of Delaware.

Elite Institution

Delaware is unique as an elite institution of higher learning. The University of Delaware is thought to be one of just three privately chartered land grant institutions in America, the others are Cornell and MIT. Delaware is often referred to as a "Public Ivy" along with institutions such as Vermont, Penn State, Rutgers, College of William and Mary, and Virginia. In 2014, the University of Delaware was ranked as one of America's premier research universities by U.S. News and World Report (75th of 201 National Universities), Forbes (126th of 650 Colleges) and Academic Ranking of World Universities (151-200 of 500 Research Universities). A 2015 report by the Council of State Governments and Elsevier publishers house concluded Delaware had the second highest rate of peer reviewed publications in the nation (after Massachusetts) at 11.4 publications per million dollars in R&D funding.

Objectives

This white paper examines the University of Delaware as a historically great institution of higher learning and seeks to identify Delaware's current and future place among the very finest universities in America. Primarily organized for athletics, intercollegiate conferences and associations also provide academic and research benefits through membership in consortiums such as the Committee on Institutional Cooperation (Big Ten), Ivy League, and Colonial Academic Alliance (CAA). Here we compare Delaware to our peer institutions organized by the following intercollegiate conferences and associations based on historic, economic, and academic metrics:

- Colonial Athletic Association
- Ivy League
- Big Ten
- Patriot League
- Atlantic Coast Conference
- Eastern Eight (potential)

Historic

- Year established when the institution or its precursor received its first charter
- Signers of Declaration of Independence who were educated by or affiliated with the institution.

Economic

- Annual operating budget for FY14 in \$billion
- Endowment in 2014 in \$billion

Academic

- Undergraduate and graduate enrollment in 2014
- Rank among institutions according to U.S. News and World Report
- Number of Nobel Prize winners plus members of National Academy of Science
- Number of Ph.D.'s per capita ranked by state where the institution is situated

Colonial Athletic Association

Delaware competes in the Colonial Athletic Association, a league that was formerly Virginia-centric but through reorganization now stretches from North Carolina to Boston. Of all the CAA schools, Delaware has most in common with William and Mary. Both are state supported and share colonial roots, W&M is the second oldest college in America. William and Mary educated five signers of the Declaration of Independence including Thomas Jefferson while Delaware its head master during the colonial era educated four. Delaware's budget and endowment compares with or exceeds all of the CAA schools. Delaware is the third highest ranked institution in the CAA (No. 75) after W&M (No. 32) and Northeastern (No. 49). Delaware is the only school with Nobel Prize and National Academy of Science members (4), William and Mary has one. Delaware is situated in a state that ranks 3rd highest in Ph.Ds. per capita while Northeastern is located in Massachusetts (2nd highest). Along with William and Mary and Northeastern, Delaware surpasses many of its CAA peers based on these metrics.

Table 1. Colonial Athletic Conference metrics

College	Est.	Budget (\$B)	Endowment (\$B)	Enrollment (2013)	Rank (US News)	Nobel + NAS	Ph.D./10,000 capita (Rank)	Signers of DI
College Charleston	1770	0.2	0.1	11,200	200	0	40	0
Drexel	1891	0.9	0.6	25,500	97	0	5	0
Hofstra	1935	0.4	0.4	12,500	135	0	8	0
James Madison	1908	0.5	0.1	19,900	200	0	16	0
Northeastern	1898	1.0	0.6	24,000	49	0	2	0
Towson	1866	0.4	0.3	22,000	200	0	13	0
UNC Wilmington	1947	0.3	0.1	14,000	200	0	26	0
William & Mary	1693	0.4	0.7	8,400	32	0	16	5
Delaware	1743	0.9	1.2	21,500	75	4	3	4

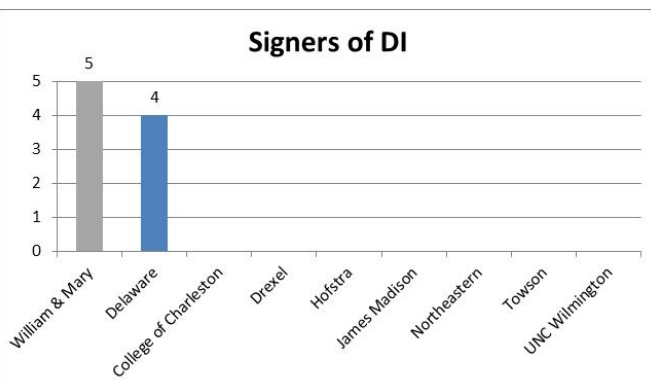
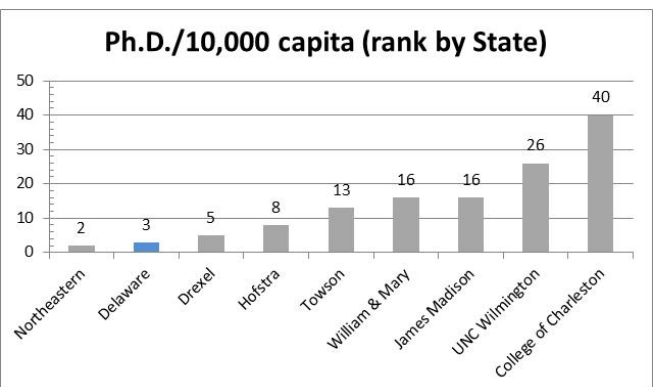
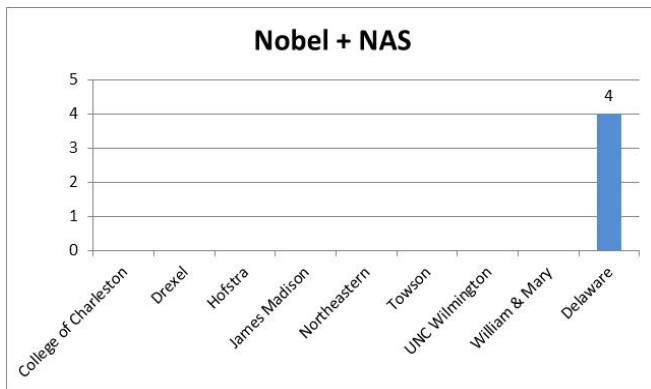
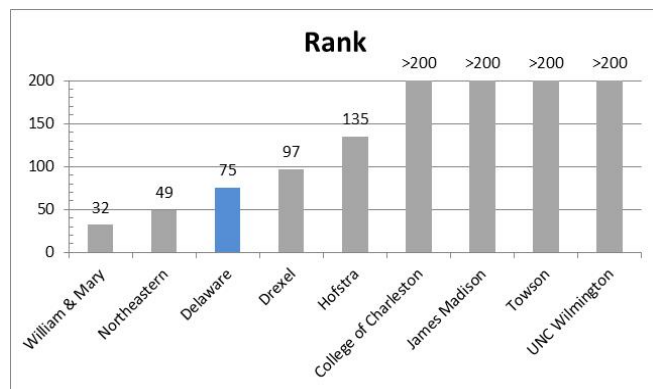
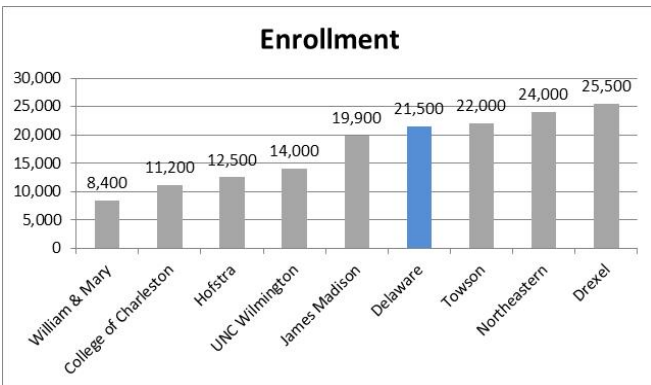
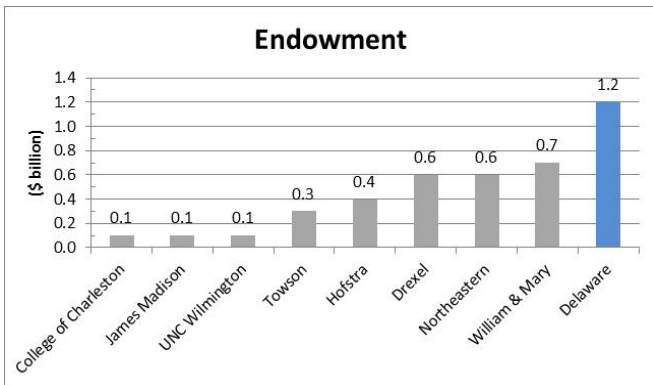
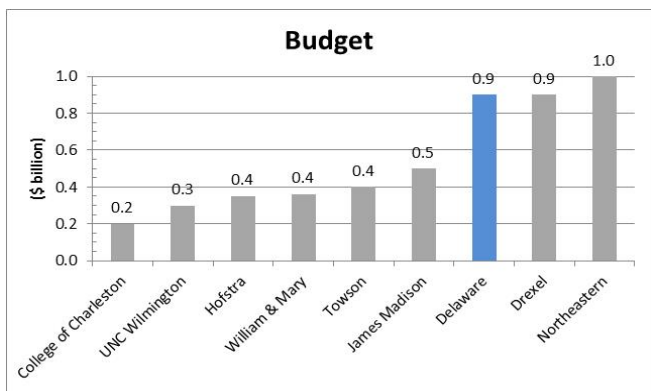
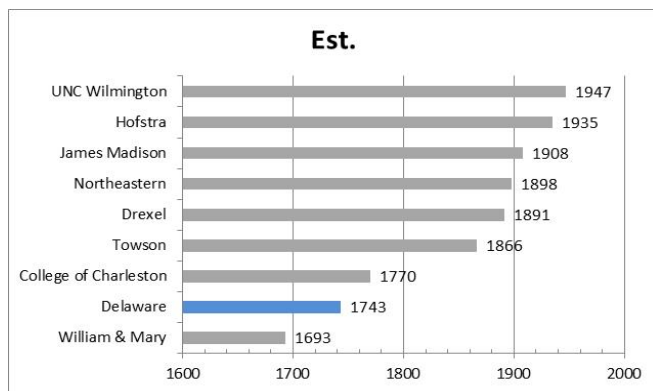


Figure 1. Colonial Athletic Conference metrics

Ivy League

Historic Delaware has extensive Ivy League ties. The University of Delaware traces its colonial roots to 1743 and the Newark Academy founded by the Presbyterians several years before the charters of the Ivy League institutions of Princeton (1746), Columbia (1754), and Pennsylvania (1755). The tenth president of Princeton favorably compared the curriculum of the Newark Academy to Princeton (College of New Jersey), Yale, and Harvard. In 1752, Benjamin Franklin recruited the Reverend Alison (Master of the Newark Academy) to be rector and later vice provost of the Academy of Philadelphia, a school that grew into the University of Pennsylvania. The President of Yale called Alison “the greatest classical scholar in America especially in Greek.” Four signers of the Declaration of the Independence were taught by Francis Alison and the Newark Academy, as many as Princeton and one less than Pennsylvania and Yale.

Delaware is often mentioned as a Public Ivy (Greene and Greene 2001). Of all the Ivy League schools Delaware has perhaps the most in common with Cornell, a hybrid Ivy League-land grant institution. Both institutions were designated as land grant institutions by Abraham Lincoln’s Morrill Act and are two of only three privately operated land grant schools, MIT is the other. Delaware’s annual budget exceeds that of Dartmouth and Brown and the enrollment exceeds all Ivy League schools except for Colombia. Delaware is located in an academically rich state with the 3rd highest number of Ph.Ds. per capita, Harvard is situated in the 2nd ranked state for Ph.Ds. and Brown is based in the 4th ranked state.

Delaware does not have a law school or medical school like many Ivy League institutions but neither does Princeton. Perhaps this is providence for Delaware. There is a photograph of the presidents of Harvard, Yale, Princeton, and Stanford and only one was smiling, the president of Princeton, the only college without a law school or medical school.

Delaware shares a colonial heritage with other Ivy League institutions and shares land grant status with Cornell. Delaware can make a historic case to be the ninth and southern-most Ivy League institution and perhaps the most likely model would be a hybrid land grant-Ivy League status (see Cornell).

Table 2. Ivy League metrics

College	Est.	Budget (\$B)	Endowment (\$B)	Enrollment (2013)	Rank (US News)	Nobel + NAS	Ph.D./10,000 capita (Rank)	Signers of DI
Brown	1764	0.9	2.7	8,649	14	15	4	1
Columbia	1754	3.0	8.2	22,920	4	155	8	
Cornell	1865	3.4	5.3	20,633	16	78	8	
Dartmouth	1769	0.6	3.7	6,141	10	5	42	
Harvard	1636	4.2	32.3	21,225	2	312	2	8
Pennsylvania	1755	6.6	7.7	20,643	7	63	2	5
Princeton	1746	1.4	18.2	7,592	1	111	30	4
Yale	1701	2.9	20.8	11,666	3	108	12	5
Delaware	1743	0.9	1.2	21,500	75	4	3	4

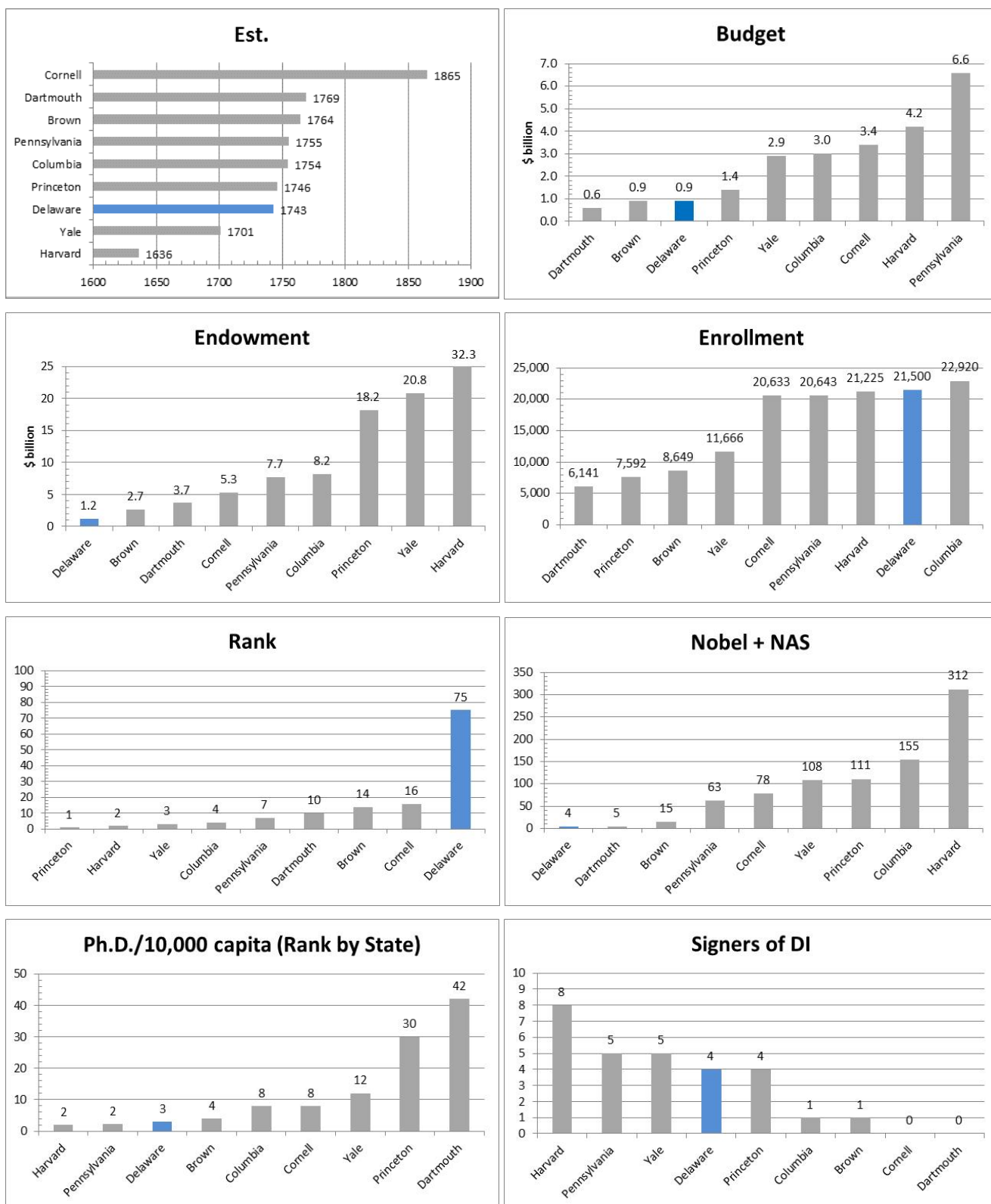


Figure 2. Ivy League metrics

Big Ten

The Big Ten is an athletically and academically rich conference of the largest land grant research institutions in America that now stretches half way across the continent from the East Coast near New York City to the 100th meridian and the Great Plains of Nebraska.

Delaware is a large land grant research university similar in size in scope to many Big Ten schools. Delaware shares a common heritage with Rutgers (est. 1766) as these are only two land grant schools in the nation with colonial roots. When Rutgers joined the Big Ten in July 2004 and attracted \$40 million in Big Ten Channel cable TV revenue from metropolitan New York City subscribers, it became a member of the Committee on Institutional Cooperation (CIC), a major research consortium that is already paying off with collaborations in environmental research with Minnesota, Michigan, and Northwestern.

Delaware compares favorably with the Big Ten schools. Delaware's endowment exceeds that of Michigan, Rutgers, Maryland, and Iowa and compares with Nebraska. According to U.S. News and World Report, Delaware's ranking compares within a few points with Purdue, Minnesota, Iowa, Michigan State, and Indiana. Delaware's total number of Nobel Prize winners and National Academy of Sciences members exceeds Nebraska and Iowa. Delaware sits in a state that has the third highest number of Ph.Ds. per capita, higher than Penn State (No. 5) and Nebraska (No. 6). The Newark Academy that grew into the University of Delaware educated four signers of the Declaration of Independence, no Big Ten school can claim that.

While the Big Ten just expanded to 15 schools by adding Maryland and Rutgers to draw the Washington, D.C., Philadelphia, and New York City metropolitan markets, Delaware has every right and qualification to be considered Big Ten caliber, if we wanted to be.

Table 3. Big Ten metrics

College	Est.	Budget (\$B)	Endowment (\$B)	Enrollment (2013)	Rank (US News)	Nobel + NAS	Ph.D./10,000 capita (Rank)	Signers of DI
Illinois	1867	4.4	1.9	44,520	41	47	11	0
Indiana	1820	3	1.7	42,464	75	16	14	0
Iowa	1847	0.65	1.1	31,498	73	4	9	0
Maryland	1856	1.7	0.9	37,631	62	20	13	0
Michigan	1817	6.7	0.8	37,197	28	47	22	0
Michigan St.	1855	1.2	2	48,906	73	8	22	0
Minnesota	1851	2.7	2.7	51,853	69	34	10	0
Nebraska	1869	2.3	1.3	24,593	101	2	6	0
Northwestern	1851	1.3	7.9	14,988	12	28	11	0
Ohio State	1870	5.1	3.1	56,867	52	15	19	0
Penn State	1855	4.4	2.9	44,817	37	14	5	0
Purdue	1869	2.3	2.2	39,637	68	14	14	0
Rutgers	1766	3.6	0.8	41,565	28	24	30	0
Wisconsin	1848	2.9	2	43,275	41	56	25	0
Delaware	1743	0.9	1.2	21,500	75	4	3	4

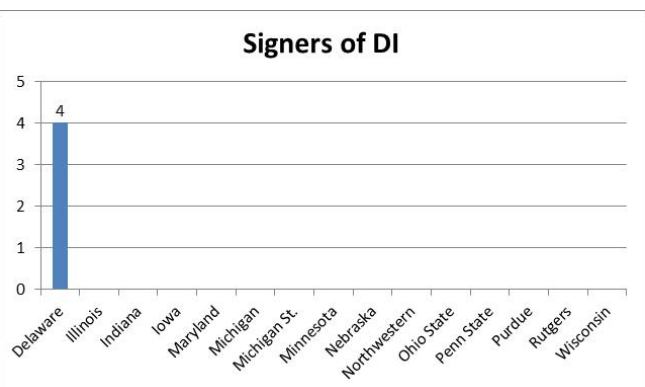
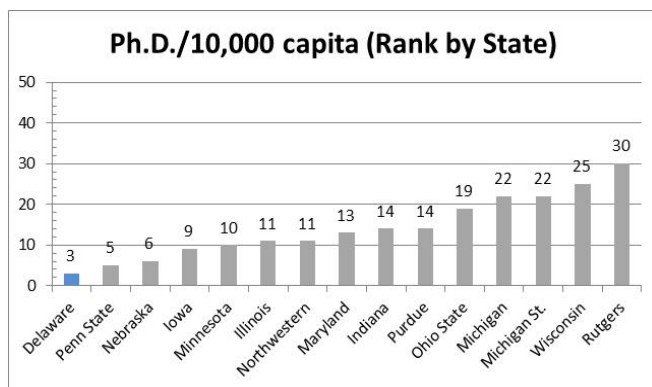
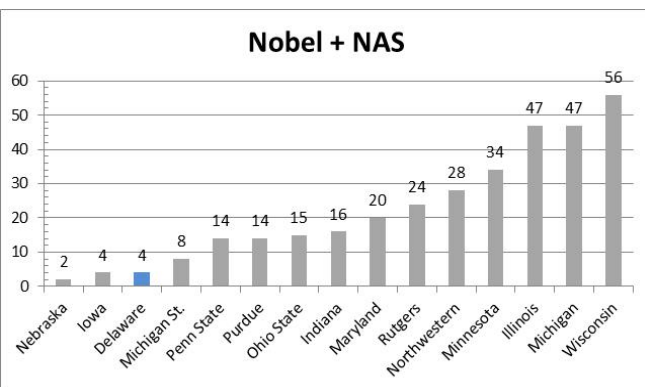
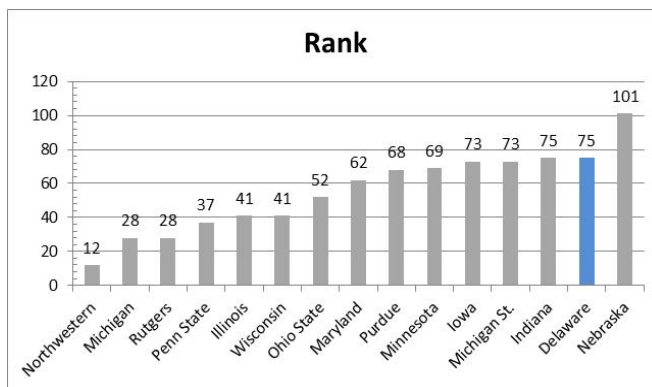
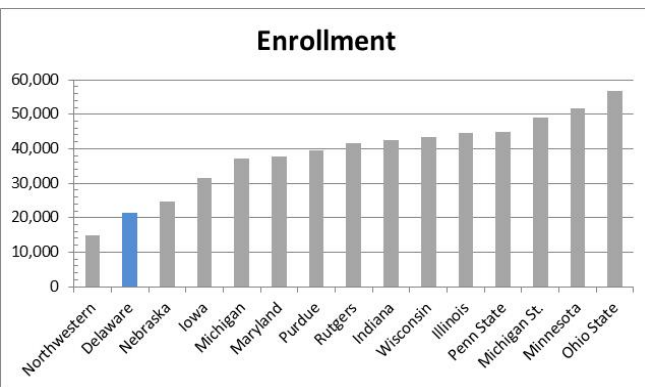
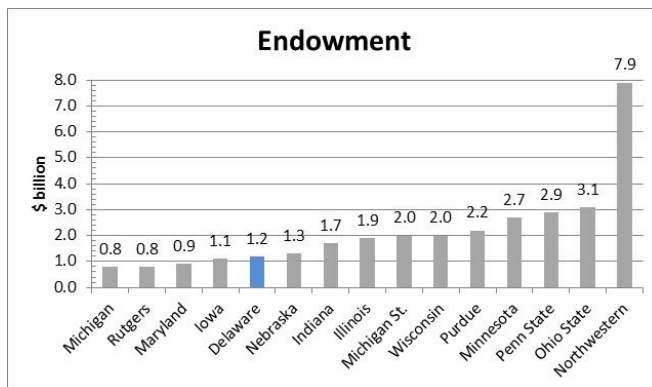
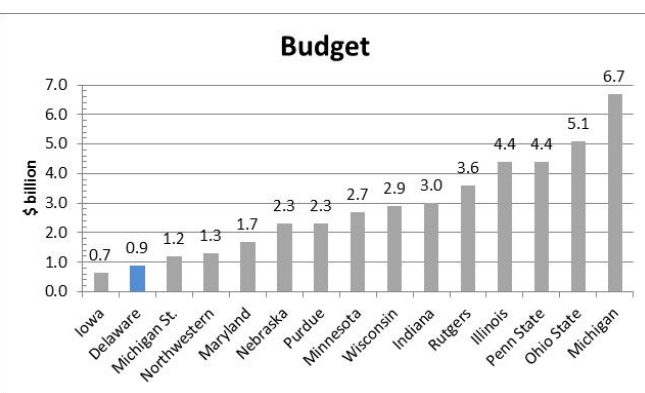
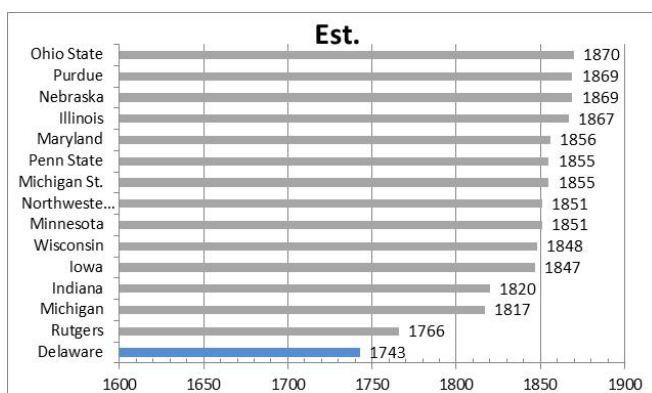


Figure 3. Big Ten metrics

Patriot League

Perhaps more than any other conference, Delaware shares much in common with the metrics of the Patriot League, an association of academically rich institutions that have deemphasized athletics by restricting scholarships. Delaware is much older than Patriot League colleges such as Colgate (1819) and Lafayette (1826). None of the schools had students who signed the Declaration of Independence. The University of Delaware's budget, endowment, and enrollment exceeds all of the Patriot League schools except for Boston University which has a medical school and law school. U.S. News and World Report ranks Delaware favorably with American University and higher than Colgate, Holy Cross, Lafayette, and Loyola. UD has more Nobel and National Academy laureates than all of the schools except for BU. Delaware is in the third ranked state by PhD per capita, only American in D.C. (No. 1) and BU and Holy Cross in Massachusetts are ranked higher (No. 2). Delaware fits in well with the Patriot League.

Table 4. Patriot League metrics

College	Est.	Budget (\$B)	Endowment (\$B)	Enrollment (2013)	Rank (US News)	Nobel + NAS	Ph.D./10,000 capita (Rank)	Signers of DI
American	1893	0.5	0.5	10,600	75	0	1	0
Boston U.	1839	1.6	1.4	30,000	41	14	2	0
Bucknell	1846	0.3	0.7	3,600	32	0	2	0
Colgate	1819	0.2	0.8	2,900	200	0	8	0
Holy Cross	1843	0.2	0.6	2,872	200	1	2	0
Lafayette	1826	0.2	0.7	2,500	200	0	5	0
Lehigh	1865	0.8	1.1	6,000	41	3	5	0
Loyola	1852	0.3	0.2	6,080	200	0	13	0
Delaware	1743	0.9	1.2	21,500	75	4	3	4

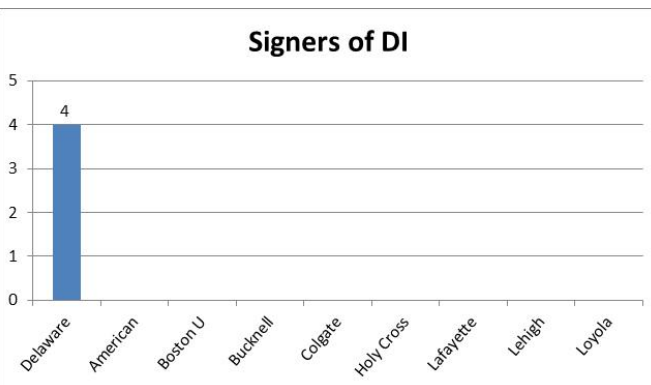
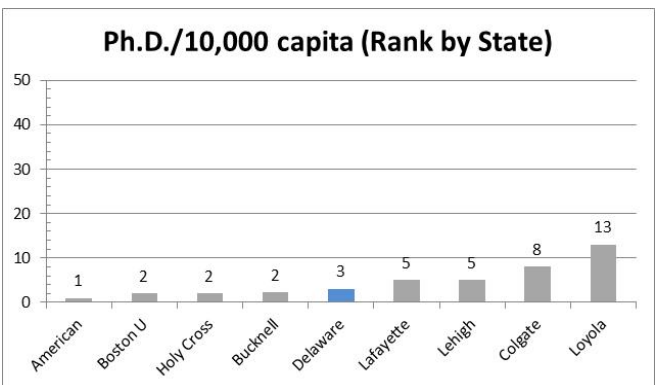
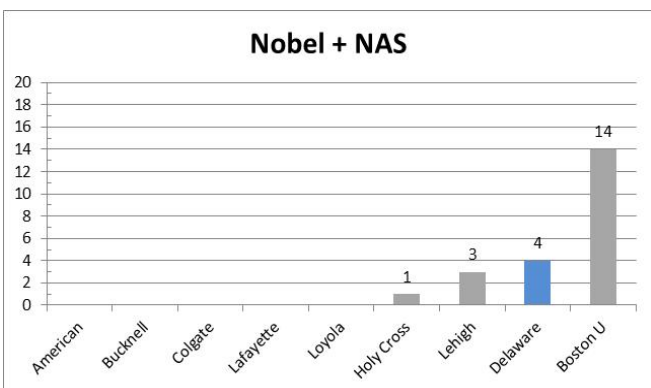
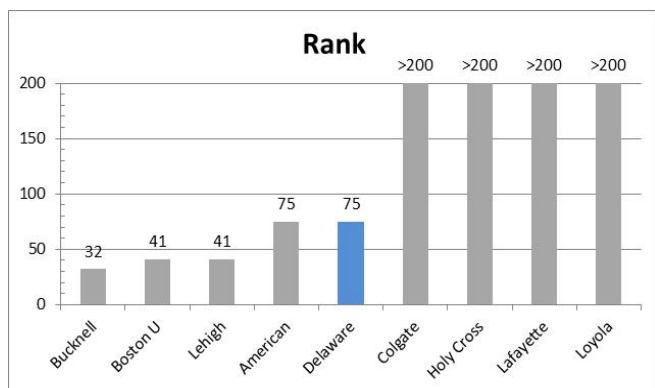
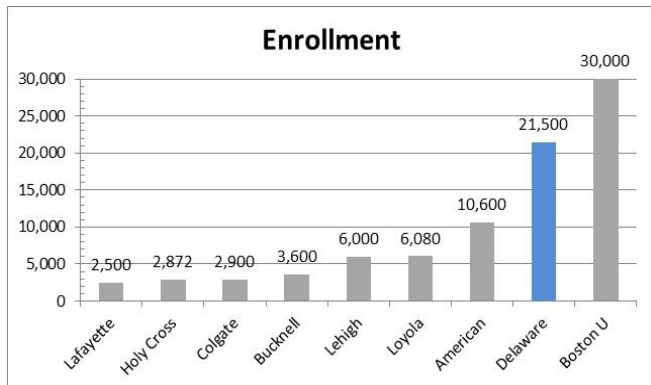
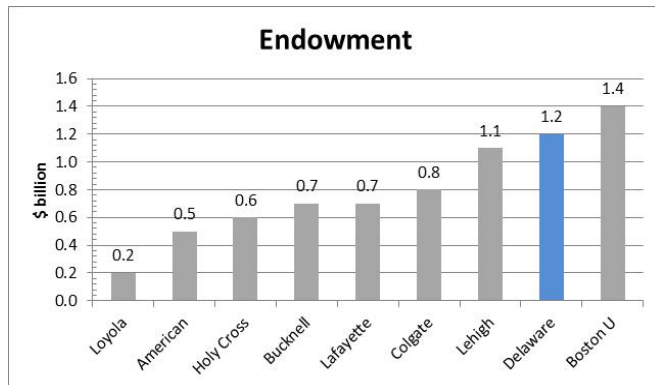
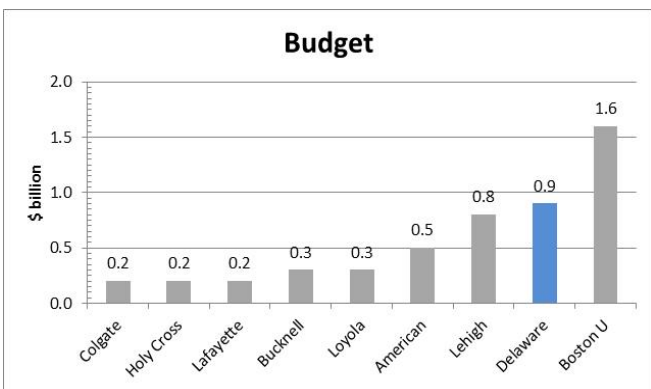
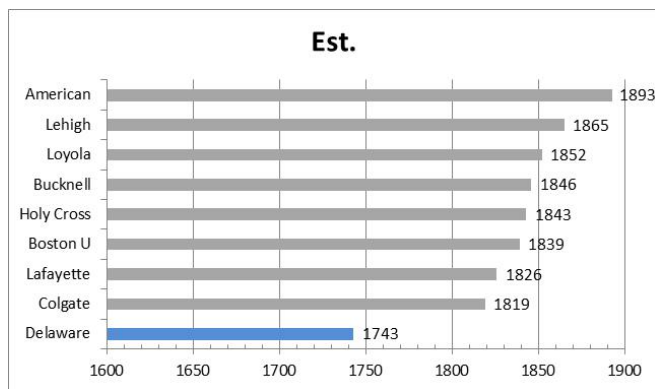


Figure 4. Patriot League metrics

Atlantic Coast Conference

Formerly composed of southeastern state-supported institutions, through realignment the Atlantic Coast Conference now reaches from Florida to Notre Dame and Syracuse. Delaware has much in common with the ACC and is signed to play these schools in football through 2020. Delaware is older than all of the ACC schools, older than Pitt (1787) and North Carolina (1789). UD claims four signers of the Declaration of Independence, UVA has one (Thomas Jefferson). Delaware's budget exceeds that of Miami, Wake Forest, Boston College, and Clemson and compares with Syracuse. UD's endowment exceeds all of the ACC schools except for Georgia Tech, Boston College, North Carolina, Pitt, UVA, Duke, and Notre Dame. Delaware's enrollment is larger than half of the ACC institutions and is higher than FSU, NC State, and Louisville and compares with Virginia Tech. Delaware has more Nobel Prize and National Academy of Sciences laureates than eight of the ACC schools. Delaware fits in with the ACC academically, financially, and historically. Although it would be a tough slog to compete in ACC basketball and football at this point, Delaware is quite competitive with these schools in the Olympic sports of soccer, field hockey, volleyball, and lacrosse.

Table 5. Atlantic Coast Conference metrics

College	Est.	Budget	Endowment	Enrollment	Rank	Nobel + NAS	Ph.D./10,000 capita	Signers of DI
Boston College	1863	0.9	1.8	14,359	31	0	2	0
Clemson	1889	0.9	0.5	21,303	62	0	40	0
Duke	1838	2.2	6.0	14,600	7	44	26	0
Florida State	1851	1.1	0.6	41,710	91	16	18	0
Georgia Tech	1885	1.4	1.7	21,471	36	4	32	0
Louisville	1798	1.2	1.2	22,529	161	0	39	0
Miami	1809	0.7	0.5	20,126	47	1	18	0
North Carolina	1789	2.0	2.4	29,390	30	28	26	0
NC State	1887	1.4	0.8	34,767	101	15	26	0
Notre Dame	1842	1.2	9.0	11,733	18	3	14	0
Pitt	1787	1.9	3.0	28,766	62	17	5	0
Syracuse	1870	1.0	1.1	21,267	62	2	8	0
Virginia	1819	2.7	5.2	21,000	23	15	16	1
Virginia Tech	1872	1.2	0.8	29,684	69	7	16	0
Wake Forest	1834	0.8	1.0	7,400	23	0	26	0
Delaware	1743	0.9	1.2	21,500	75	4	3	4

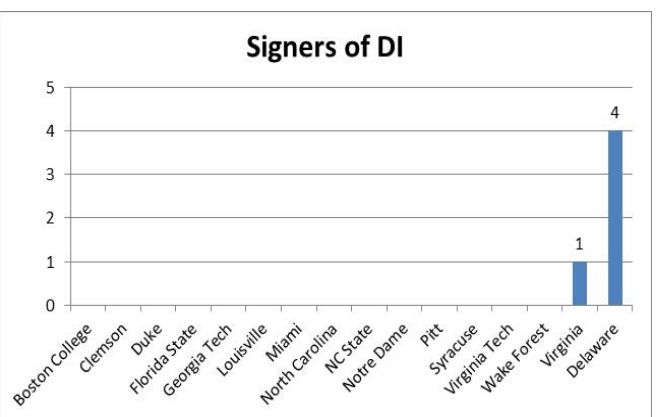
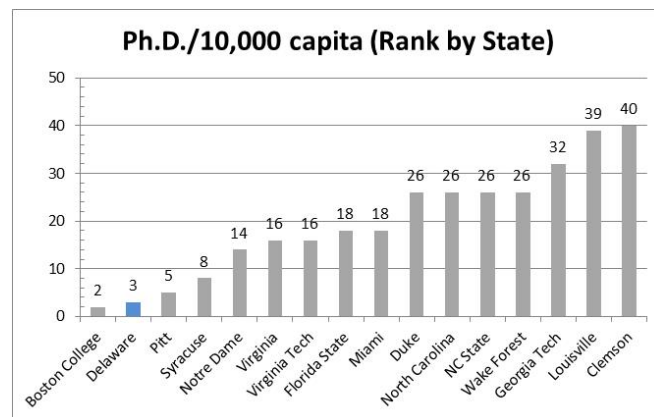
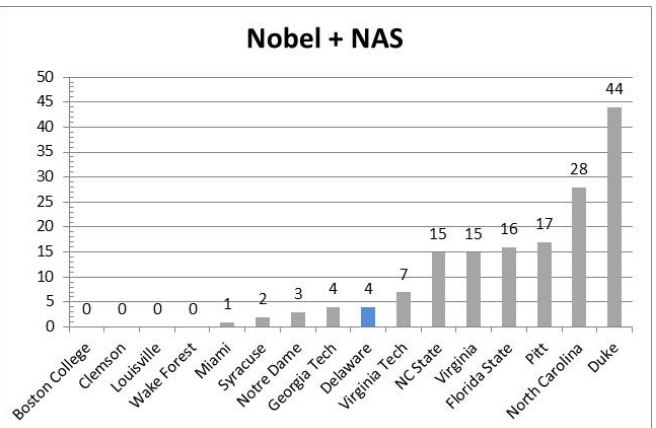
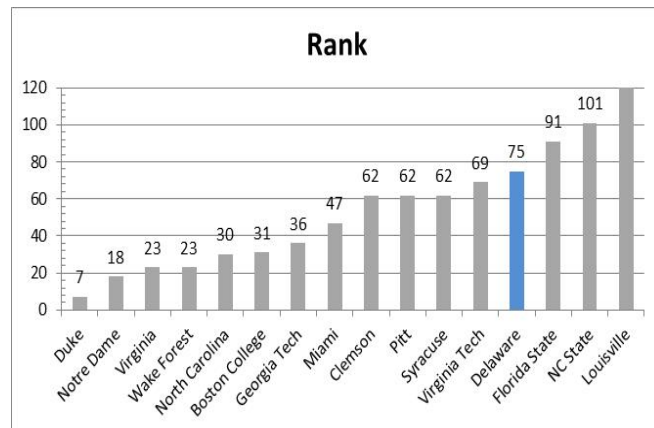
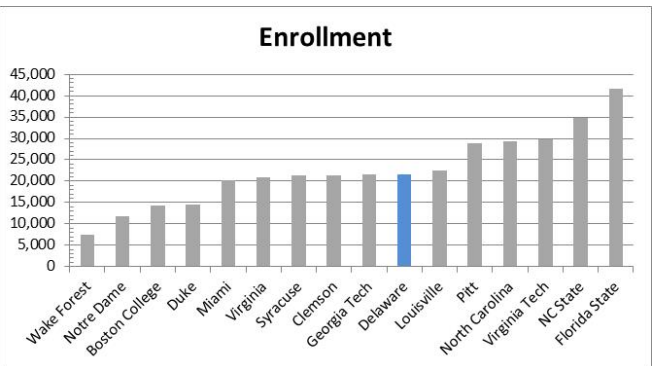
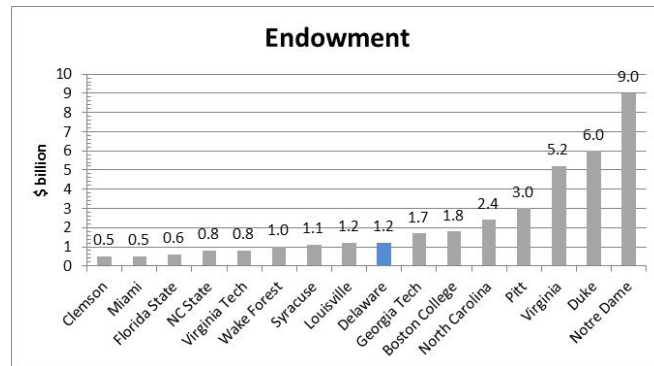
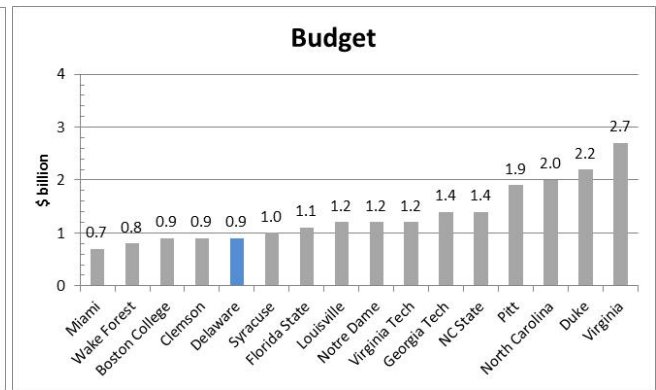
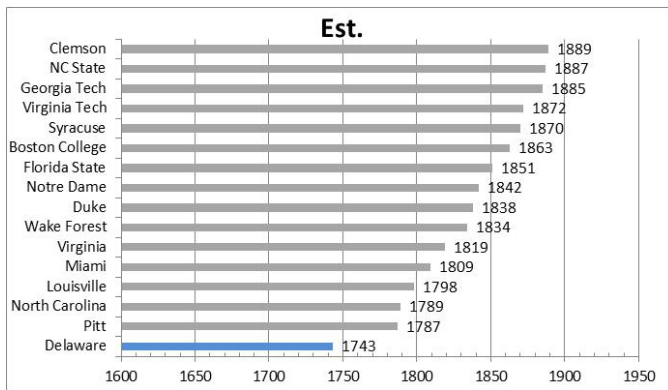


Figure 5. Atlantic Coast Conference metrics

Eastern Eight

The Eastern Eight is a hypothetical academic conference of like-minded schools along the Eastern Seaboard from Virginia (William and Mary) and Maryland (Johns Hopkins) to Boston (Tufts, MIT, and BU). Delaware is the second oldest school after William and Mary, the other schools also have extensive heritage and were formed before 1876. Delaware's annual budget would be in the median of Eastern Eight schools and exceeds Vermont, W&M, Fordham, Tufts, George Washington, and Georgetown. UD's endowment is equal to or greater than UVM, Fordham, W&M, Georgetown, and Boston University. Delaware's enrollment is larger than all but three schools (GWU, BU, and NYU). All of these schools except for Vermont are ranked higher than Delaware but such sterling company would inspire UD to achieve greater academic success. Nobel Prize and National Academy of Sciences members from UD compares with W&M, UVM, Fordham, GWU, Georgetown, and Tufts. Delaware sits in a state where the Ph.D. per capita ranks No. 3 after D.C.-based Georgetown and George Washington and Boston schools MIT, BU, and Tufts. Delaware educated four signers of the Declaration of the Independence, more than all of the schools except William and Mary (5). NYU claims one signer of the DI. Membership in an academically rich Eastern Eight conference would boost the scholastic standing of the University of Delaware.

Table 6. Eastern Eight metrics

College	Est.	Budget	Endowment	Enrollment	Rank	Nobel + NAS	Ph.D./10,000 capita (Rank)	Signers of DI
Delaware	1743	0.9	1.2	21,500	75	4	3	4
Vermont	1791	0.3	0.4	1,200	82	1	44	0
MIT	1861	2.9	11.0	11,000	7	189	2	0
Boston U	1839	1.6	1.4	30,000	41	14	2	0
New York University	1831	2.8	2.9	51,000	32	66	8	1
Georgetown	1789	1.1	1.3	17,100	20	4	1	0
George Washington	1821	0.9	1.4	25,200	52	4	1	0
William & Mary	1693	0.4	0.7	8,400	32	0	16	5
Tufts	1852	0.8	1.4	10,700	28	5	2	0
Fordham	1841	0.5	0.6	15,100	57	1	8	0
Johns Hopkins	1876	4.7	3.0	2,100	12	61	13	0

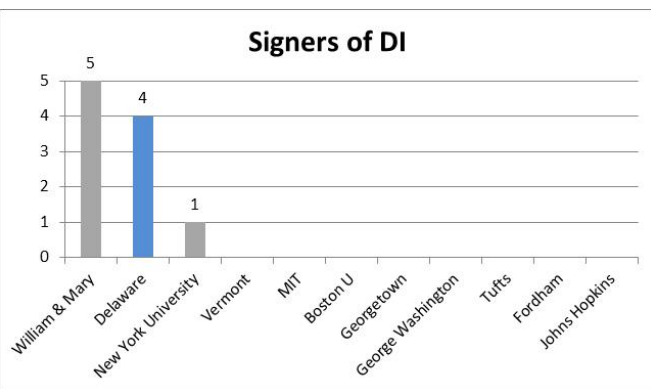
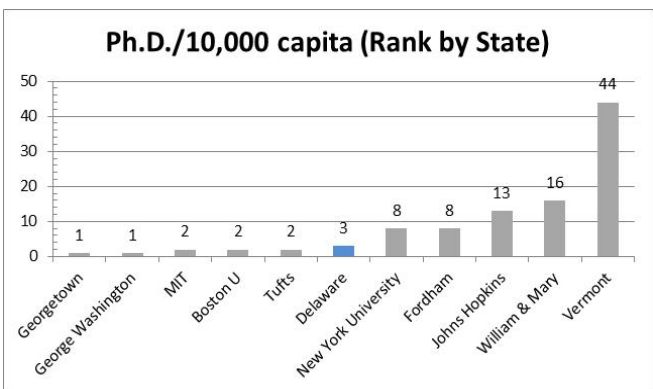
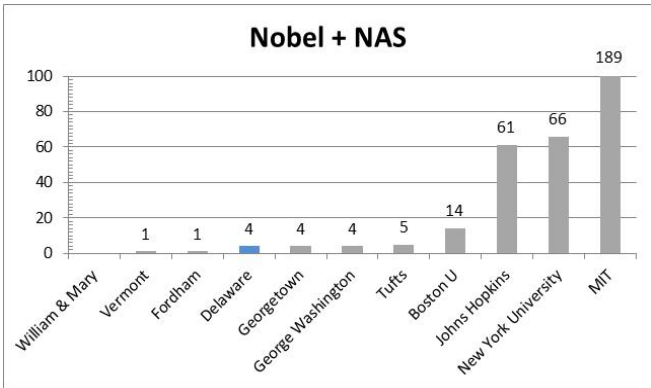
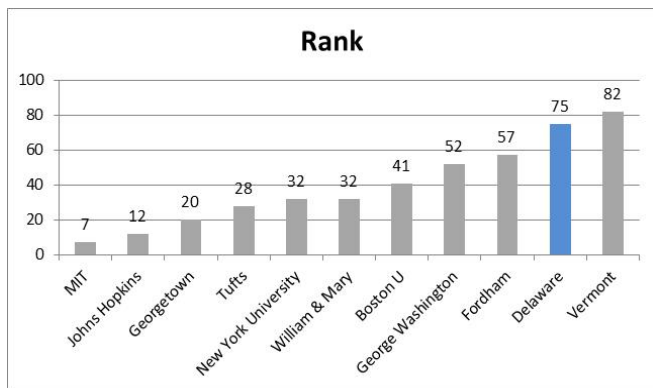
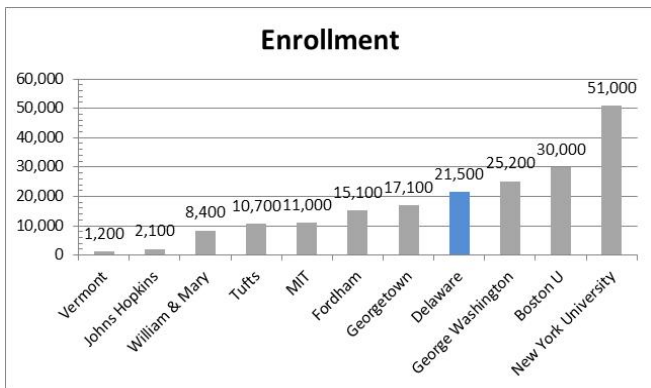
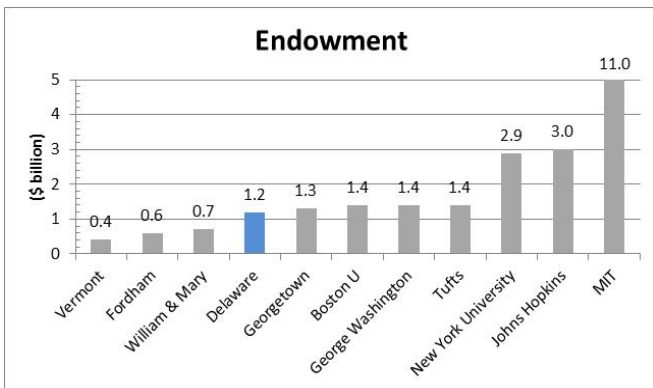
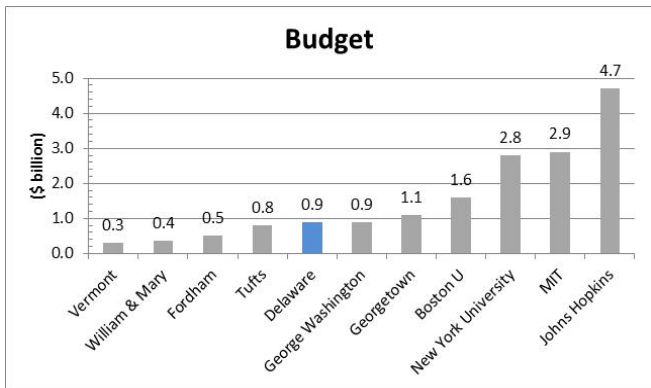
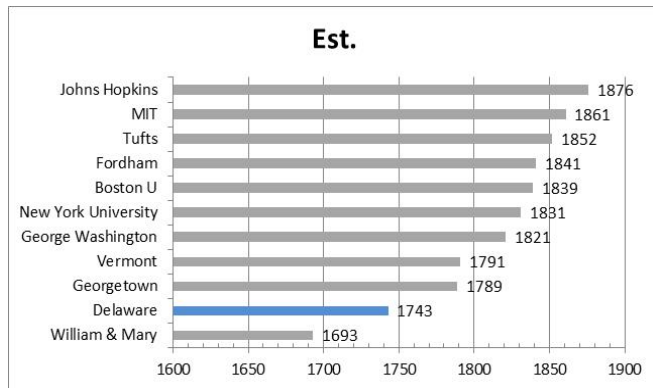


Figure 6. Eastern Eight metrics

Concluding Remarks

For over two hundred and seventy years since its founding as the Newark Academy, the University of Delaware has evolved as one of the finest and most uniquely historic institutions of higher learning in the nation. By its historic, academic, and economic standing, Delaware has the quality to be considered amidst any intercollegiate conference or association in the land, whether it be the Ivy League, Big Ten, or Atlantic Coast Conference, the Colonial Athletic Association or the Patriot League, or a hypothetical collaboration of the Eastern Eight. Historic Delaware's fate is to be one of the truly elite universities in America. This is a destiny that began nearly three centuries ago.

References

Cooch, E. W., 1940. Battle of Cooch's Bridge, Delaware, September 3, 1777. 1-58.

Greene, H. and M. Greene, 2001. The Public Ivies: America's Flagship Public Universities. Greenes' Guides Rankings.

Ryden, G. H., 1935. The Newark Academy of Delaware in Colonial Days. Pennsylvania History. 2(4):205-224.

U.S. News and World Report, 2014. Best Colleges.