

# INFORMATION ACQUISITIONS AND COMPETITIVE ADVANTAGE



The Impact of Information Acquired through the Freedom of Information Act to Generate a Competitive Advantage within Academia

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# Agenda

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Introduction

Literature Review

Methods

Results and Discussion

Conclusion



# Introduction

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Higher educational institutions at all levels of academia are developing competitive advantages such as flexible and hybrid learning environments, modern infrastructure, tailored degree programs and curriculum, or productive faculty to satisfy the individual needs of students, industries, and nations.

Consequently, like corporations, higher educational institutions are using traditional business strategies such as **information acquisitions** to develop an understanding of the markets they serve with the intention of creating the correct **competitive advantages** to capitalize on those markets.

This study will seek to understand the factors that measure, and to what extent, higher educational institutions are creating competitive advantages and how information acquisitions is leading to their successful development; specifically, information acquired through the use of the Freedom of Information (FOIA).



# Literature Review

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## Theories

- Competitive Advantage - University Inc.
- Information Acquisitions - Turning Information into Knowledge

## Sample

# Porter's Theory of Competitive Advantage

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## The Market of Higher Education

- five competitive forces that influences markets: “the entry of new competitors, the threat of substitutes, bargaining power of suppliers and buyers, and the rivalry between existing competitors (Porter, 1985, p. 4).

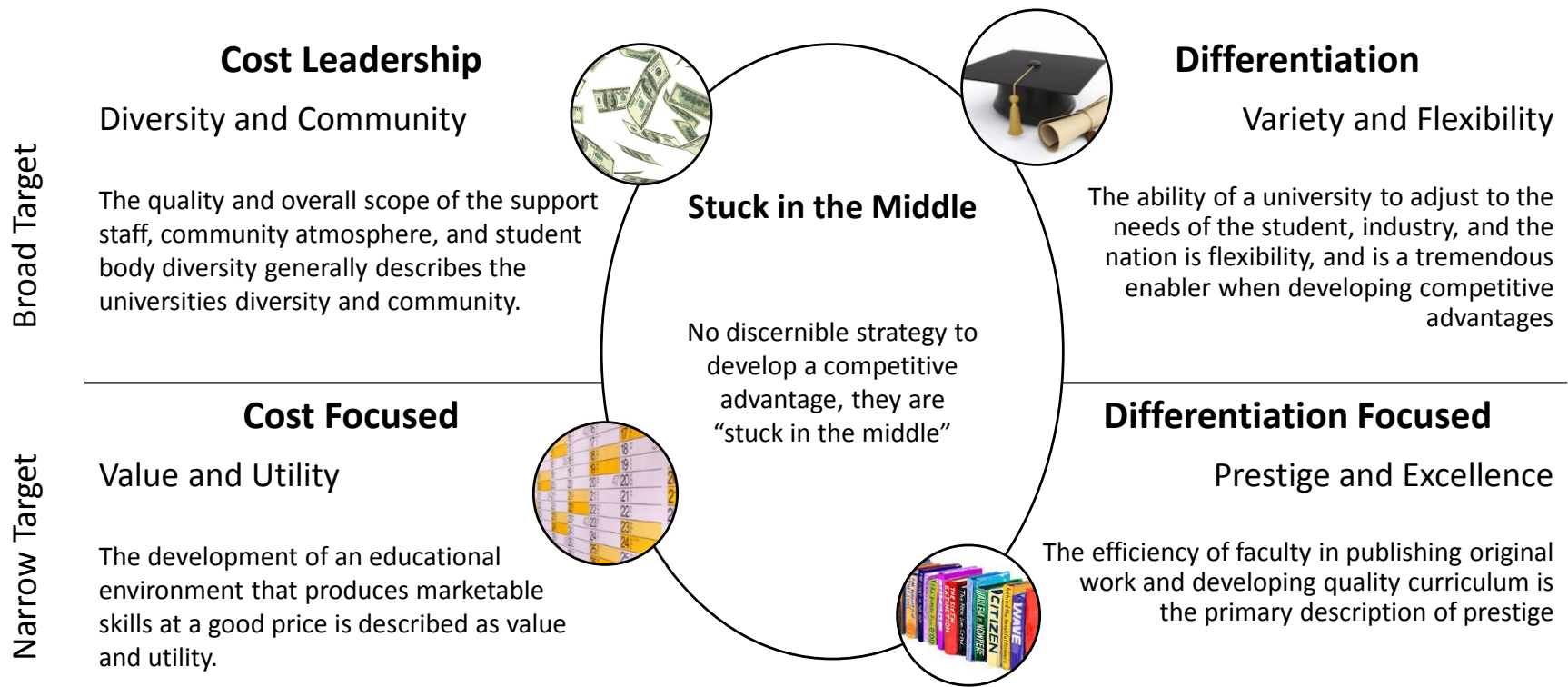
## A Nation's Need to Educate

- nation’s economy requires a highly competent and educated work force to fuel the nation’s competitive advantages; consequently, the nation’s needs influences a universities’ curriculum development in order to meet the requirements of the economy (Porter, 1990; Liu, 2011).

## A University's Ranking

- The four generic market strategies of **cost-leadership, cost-focus, differentiation, and differentiation-focus** are used by this analysis to describe higher educational market groupings (Porter, 1985).

# University Inc.





# Information Acquisitions

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Universities and community colleges of all sizes are developing competitive advantages through the higher educational market with the intention of ensuring its survival. The next question is:

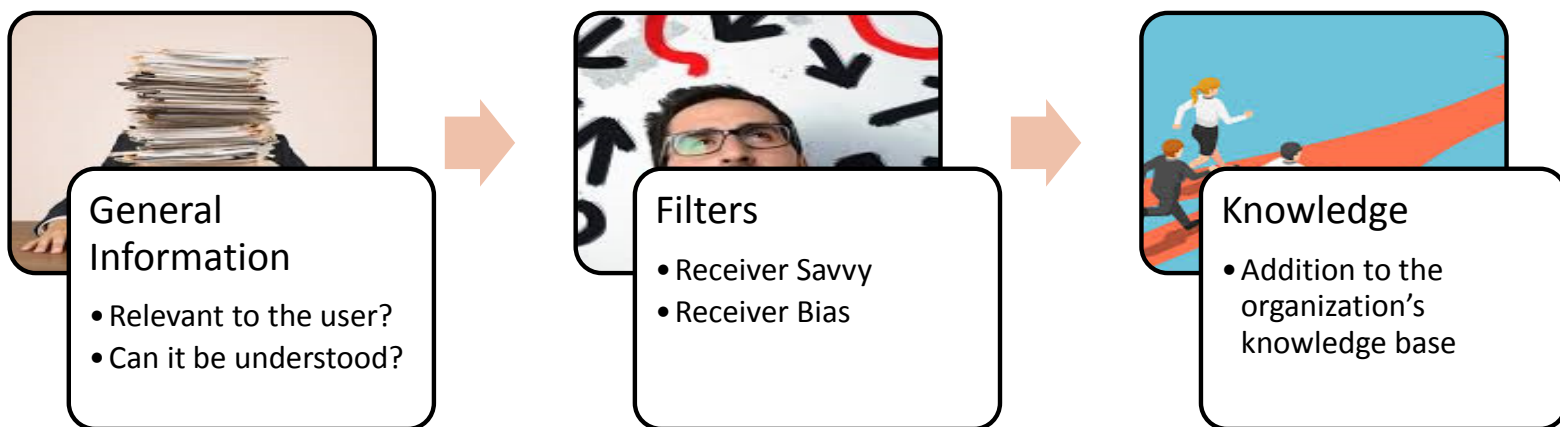
What role does information acquisitions play in a university's ability to develop such competitive advantages?

As higher educational institutions struggle to meet the needs of many stakeholders within the market of higher education through a dynamic global economy, educational institutions are looking toward traditional **business strategies** such as **information acquisitions, big data, and smart analytics** to develop competitive advantages (Daniel, 2015).

Gathering actionable information within the marketplace to **reduce information asymmetries** is difficult, prompting many organizations to hire individuals from a competitor, observe open corporate behaviors, or purchase information to aid in understanding a developing and dynamic market (Gordon, 2014; Nayyar, 1990).



# Turning Information into Knowledge



**General information** can be in the form of reports, spreadsheets, graphs, tables, recordings, or data files and is inherently formulated for particular audiences or specific purposes. For example, a piece of information could be a data file specifically designed to be read by a particular computer program, or a word document formatted for a committee's consumption.

The receiver must have the ability to understand the information and recognize its relevance to the organization. Possessing the **savvy** to make inferences between the collected information and working to push off **biases** is how an organization is able to develop a comprehensive understanding of the environment being analyzed.

Lastly, once the information is understood by the organization as relevant, it becomes part of the organization's **knowledge base**

(Kress, 1993)





# Prestige and Excellence

The efficiency of faculty in publishing original work and developing quality curriculum is the primary description of prestige

- **Faculty and Publication:** Adding new knowledge to reputable publications [secures] a competitive edge within the market (Ali, Bhattacharyya, & Olejniczak, 2010, pp. 164-615)
- **Programs Offered:** educational institutions are charged with developing tailored degree and certification programs to meet the ever-changing needs of industry and students (Porter, 1985; Hann, 2015).

Variable	Obs	Mean	Std.Dev.	Min	Max
<b>Faculty and Publications</b>					
Salary	5,599	\$57,142	\$17,558	\$845	\$131,000
Faculty Total	5,599	326	548	0	5762
Faculty Full-Time	5,599	200	368	0	5080
All Publications	5,599	9.9	242.5	0	10961
Top1 % of Frequently Cited Publications	5,599	0.2	3.8	0	151
Gold Publications	5,599	1.1	26.6	0	1342
International Collaboration	5,599	3.6	88.4	0	3826
<b>Programs Offered</b>					
Total Programs Offered	5,599	98	128	3	1107
One-Year Certificate	5,599	14	31	0	375
Two-Year Certificate	5,599	13	24	0	234
Four-Year Certificate	5,599	1	4	0	87
Associates Degree	5,599	22	47	0	348
Bachelor's Degree	5,599	31	61	0	441
Post-Baccalaureate	5,599	3	11	0	210
Master's Degree	5,599	11	29	0	369
Post-Masters	5,599	1	5	0	123
Doctors	5,599	2	8	0	180



# Prestige and Excellence (continued)

- **Infrastructure:** Infrastructure such as dormitories, classrooms, laboratories, libraries, and internet capabilities “represent internal conditions for the flexibility of programs” (Schellekens & Van, 2003, p. 287).

Variable	Obs	Mean	Std.Dev.	Min	Max
<b>Infrastructure</b>					
Dormitory Capacity	5,599	316	775	0	10,262
Total Student Enrollment	5,599	2,389	4,744	2	60,603
<b>Libraries</b>					
Books	5,599	52,849	126,000	0	2,640,000
Electronic Books	5,599	109,000	393,000	0	25,000,000
Media	5,599	61,685	758,000	0	30,300,000
Databases	5,599	166	2,849	0	175,000



# Variety and Flexibility

The ability of a university to adjust to the needs of the student, industry, and the nation is flexibility, and is a tremendous enabler when developing competitive advantages.

- **Delivery Mode:** Flexible learning programs permit professionals to gain skills to advance their careers, allows people to achieve a long-lost goal, or gives someone an opportunity to reach their true potential (Schellekens & Van, 2003).
- **Financials:** The financial strength of an organization is a necessity when developing competitive advantages; organizations that possess a healthy financial posture will be better positioned to develop competitive advantages over less financially structured opponents (Porter, 1985).

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Delivery Mode (Hybrid or Online Classes)</b>					
Undergraduate					
Exclusively	5,599	7.8%	17.4%	0.0%	100.0%
Some	5,599	11.4%	18.0%	0.0%	100.0%
Not Enrolled	5,599	76.5%	31.2%	0.0%	100.0%
Graduate					
Exclusively	5,599	9.1%	22.9%	0.0%	100.0%
Some	5,599	3.7%	11.4%	0.0%	100.0%
Not Enrolled	5,599	17.2%	32.8%	0.0%	100.0%
<b>Financials</b>					
Assets	5,599	\$32,770	\$84,845	\$0.0	\$1,590,000
Liabilities	5,599	\$10,416	\$19,264	\$0.0	\$406,000
Expenses	5,599	\$17,356	\$14,194	\$0.0	\$199,000
Revenue	5,599	\$18,381	\$15,066	\$0.0	\$260,000
Federal	5,599	\$1,240	\$2,855	\$0.0	\$57,365
State	5,599	\$2,055	\$4,755	\$0.0	\$93,333
Private	5,599	\$1,736	\$6,028	\$0.0	\$113,000
Other	5,599	\$13,351	\$12,736	\$0.0	\$260,000
Endowments	5,599	\$13,913	\$70,256	\$0.0	\$1,490,000



# Diversity and Community

The quality and overall scope of the support staff, community atmosphere, and student body diversity generally describes the universities diversity and community.

- **Staff:** Support staff such as librarians, healthcare professionals, administrative support, research, and management all drive the professional educator to develop variety within the educational experience (Schellekens & Van, 2003; Hann, 2015; Burns, 2018).
- **Assistance and Services:** A sense of community and belonging to develop a total student experience is a powerful form of competitive advantage (Simpson & Ferguson, 2013; Dawson, Burnett, & O'Donohue, 2006).

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Staff Salary</b>					
Total	5,599	\$34,567	\$27,721	\$0.0	\$171,000
Research	5,599	\$3,900	\$16,444	\$0.0	\$240,000
Public Service	5,599	\$2,190	\$11,588	\$0.0	\$152,000
Librarians	5,599	\$27,935	\$25,443	\$0.0	\$140,000
Management	5,599	\$57,899	\$50,269	\$0.0	\$401,000
Business	5,599	\$29,651	\$29,074	\$0.0	\$300,000
Computer	5,599	\$27,377	\$29,674	\$0.0	\$242,000
Community	5,599	\$22,400	\$26,283	\$0.0	\$145,000
Healthcare	5,599	\$12,651	\$24,186	\$0.0	\$148,000
Service	5,599	\$16,490	\$19,118	\$0.0	\$88,804
Sales	5,599	\$8,777	\$18,681	\$0.0	\$120,000
Administrative	5,599	\$23,667	\$20,373	\$0.0	\$97,850
Maintenance	5,599	\$14,369	\$21,521	\$0.0	\$102,000
<b>Assistance and Services</b>					
Study Abroad	5,599	29.0%	45.4%	0.0%	100.0%
Life Experience	5,599	35.6%	47.9%	0.0%	100.0%
Credit for Life Experience	5,599	46.9%	49.9%	0.0%	100.0%
Credit for Military	5,599	91.0%	28.6%	0.0%	100.0%
Career Counselling	5,599	79.5%	40.4%	0.0%	100.0%
Placement Services	5,599	47.4%	49.9%	0.0%	100.0%
Weekend and Evening Schedule	5,599	29.0%	45.4%	0.0%	100.0%



# Diversity and Community (continued)

- Diversity:** Building on a university's concept of culture is diversity where the collection of "different points of view foster more active thinking and decision making that is informed by a more complex and multifaceted world view rather than passive commitments based on prior experience" (Sorensen, Nagda, Maxwell, & Gurin, 2009, p. 5).

Variable	Obs	Mean	Std. Dev.	Min	Max
<b>Diversity</b>					
Enrollment Men	5,599	991	2082	0	31919
Enrollment Woman	5,599	1397	2745	0	39759
Age					
Under-18	5,599	3.3%	8.0%	0.0%	72.0%
18-24	5,599	24.9%	32.8%	0.0%	100.0%
25-64	5,599	13.2%	21.1%	0.0%	100.0%
Over-65	5,599	0.1%	0.6%	0.0%	20.0%
Race					
Native	5,599	1.3%	7.0%	0.0%	100.0%
Asian	5,599	3.7%	7.9%	0.0%	100.0%
Islander	5,599	4.1%	8.8%	0.0%	100.0%
Black	5,599	17.8%	21.5%	0.0%	100.0%
Hispanic	5,599	17.6%	22.8%	0.0%	100.0%
Hawaiian	5,599	0.4%	3.1%	0.0%	99.0%
Alien	5,599	2.3%	7.3%	0.0%	100.0%
Unknown	5,599	4.2%	7.4%	0.0%	99.0%
Two Races	5,599	2.9%	3.9%	0.0%	63.0%
White	5,599	49.8%	28.1%	0.0%	100.0%



# Value and Utility

The development of an educational environment that produces marketable skills at a great value is described a value and utility.

- **Students:** students are customers of higher education, if a student is not satisfied with the institution, or the price does not justify the result, the student can opt to leave the institution (Liu, 2011; Rania, Siri, Bagnasco, Aleo, & Sasso, 2014).
- **Aid and Tuition:** The value of the education is of the upmost importance to the student as the cost of higher education no longer automatically translates to a career that would justify the cost of the education (Morton, 2018; (Stodnick & Rogers, 2008).

Variable	Obs	Mean	Std.Dev.	Min	Max
<b>Students</b>					
ACT Math	5,599	23	3	13	32
SAT Math	5,599	565	61	389	750
Student Retention Rate	5,599	70	16	0	100
Student Faculty Ratio	5,599	15	6	1	78
<b>Aid and Tuition</b>					
Average Amount	5,599	\$6,819	\$6,890	\$0.0	\$44,406
Number of Grants	5,599	180	306	0	4,206
Grant Total	5,599	\$2,190,000	\$4,340,000	\$0.0	\$57,100,000
Payment Plan	5,599	88.8%	31.6%	0.0%	100.0%
Tuition Cost	5,599	\$13,865	\$9,041	\$0.0	\$91,706



# The Commercial Use of FOIA

The original intent of FOIA was to provide a window into the inner workings of the US Government, with the original lobbyists of the Act being the journalistic community. However; **“a common complaint is that the major beneficiaries of the Act continue to be corporations and other private interest groups [that] use it profitably to secure information on the activities of their competitors”** (Smith, 1979, p. 12).

FOIA requests from the top five FOIA request receiving agencies reveals that 71% of all FOIA requests are of a commercial nature; additionally, third-party FOIA companies are requesting large amounts of information from the US Federal Government then selling that information to other organizations (Kwoka, 2016). Moreover, Mullins (2013) adds to Kwoka’s research that the direct financial impact of selling information is numerically unknown, although **it can be hypothesized that the third-party FOIA request apparatus is “a thriving industry unto itself”** (Mullins, 2013, p. 3).



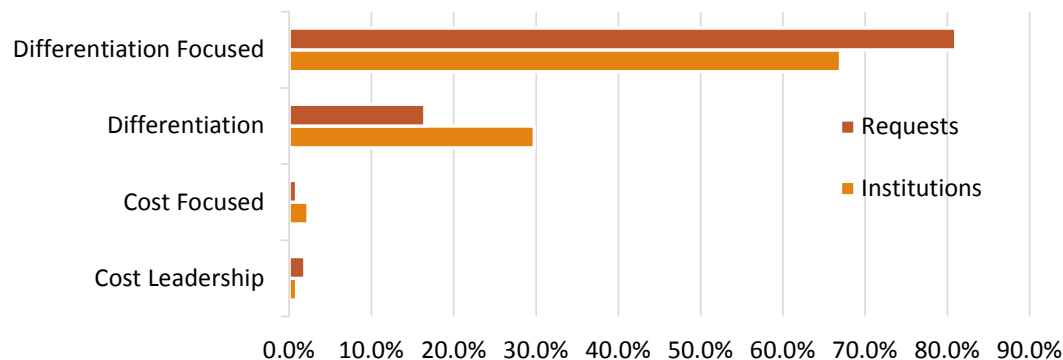


# Freedom of Information logs

FOIA data, or more accurately described as, FOIA logs, is a list of formal information requests to the US Government.

The vast majority of institutions that engage in information acquisitions activities are of the differentiation and differentiation focused segments of the educational market.

Segment	Institutions				Requests	
	Non- FOIA	FOIA	Total	%	Total	%
<b>Differentiation Focused</b>	1,042	376	1,418	67.02%	1,783	81.0%
<b>Differentiation</b>	1,292	167	1,459	29.77%	363	16.5%
<b>Cost Leadership</b>	1,230	13	1,243	2.32%	19	0.9%
<b>Cost Focused</b>	1,474	5	1,479	0.89%	35	1.6%
Total	5,038	561	5,599	100%	2,200	100.00%





# Sample



The sample was developed from the US Department of Education's NCES database which represents all registered higher educational institutions operating within the United States.

Omission from the population was performed under the following three stipulations:

- A higher educational institution is closed, or described by the Department of Education as the **death year**,
- If the observation is a structure or office that administers to a broader **educational system**; such as, the University of Alabama System.
- **Cluster outliers** are institutions that presented themselves so far from the population mean that they were omitted from the analysis

	N	%
Start	6,857	
Death Year (closed)	324	5%
University Systems/Other	205	3%
Factor Sample	6,328	
Cluster Outliers	729	11%
<b>Sample</b>	<b>5,599</b>	<b>82%</b>



# Methods

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## Data Collection Methods

- Open Sourced Data
- Formal Request

## Quantitative Methods

- Imputation
- Factor Analysis
- Cluster Analysis
- Logistics Regression

## Limited Qualitative Methods

- Codes
- Qualitative Analysis



# Data Collection

## Open Sourced Data



- Department of Education's National Center for Education Statistics (NCES) database

- Provided a comprehensive list of variables that describes the behaviors and attributes of higher educational institutions operating within the United States



- Leiden University's Leiden ranking
  - Provided a comprehensive dataset that describes a universities publishing behaviors



## Formal Request

- Freedom of Information Act. (FOIA)
  - The majority of the acquired FOIA logs were attained through FOIA requests

The image shows three overlapping FOIA request and response documents. The top document is from the National Archives, dated October 17, 2019, responding to a request from Kevin O'Reilly. The middle document is from the National Endowment for the Humanities (NEH), dated October 17, 2019, responding to a request from Kevin O'Reilly. The bottom document is from the U.S. Department of Justice, dated October 28, 2019, responding to a request from Kevin O'Reilly.



# Imputation

Unfortunately, a small portion of the data provided by the Department of Education encompassed missing data; consequently, arbitrarily removing these observations would decrease the power of the analysis.

The **regression imputation method** utilized non-missing independent variables to predict the missing, or dependent variables, and is the total number of publications, total student body enrollment, number of physical library books, and the total number of programs offered. These variables were chosen because they are good broad indicators of a higher educational institutions' characteristics.

	Missing	Upper Limit	Lower Limit
<b>Dependent</b>			
Student Faculty Ratio	4.32%	247	1
Retention Rate	15.9%	100	1
Salary	37.9%	\$230,000	\$1
ACT Math	84.9%	33	2
SAT Math	84.4%	800	2
<b>Independent</b>			
Publications	0.0%	-	-
Total Enrollment	0.0%	-	-
Books	0.0%	-	-
Programs Offered	0.0%	-	-

# Factor Analysis

The **factor analysis** developed four factors that generally aligned itself to the binned variables of prestige and excellence, variety and flexibility, diversity and community, along with value and utility developed during the literature review and provides confidence that the literature review supports the theory of **competitive advantage** and can be effectively used to test the hypothesis of **information acquisitions**.

Bartlett's test along with Kaiser-Meyer-Olkin Measuring Sample Adequacy methods were utilized to confirm that the variables are not intercorrelated and suited for the analysis.

Variable	Prestige and Excellence	Variety and Flexibility	Diversity and Community	Value and Utility	Uniqueness
Physical Library Books	0.8584				0.2211
Top1% of Frequently Cited	0.9047				0.1542
Gold Publications	0.9371				0.1004
Internationally Collaborated Publications	0.9359				0.1041
Total Instructional Faculty	0.8616				0.2002
Full-Time Instructional Faculty	0.5430				0.4772
Total Student Enrollment	0.8758				0.1237
Number of Offered Masters Programs	0.8968				0.1093
Number of Doctorate Programs	0.7279				0.3207
Liabilities		0.7478			0.3946
Expenses		0.9401			0.0965
Revenue		0.9441			0.0952
Federal		0.8030			0.3262
Private		0.8859			0.2134
Salary of Librarians Staff			0.8792		0.2177
Salary of Management Staff			0.8754		0.2120
Salary of Business Staff			0.8828		0.2036
Salary of Computer Staff			0.8893		0.1808
Salary of Community Service Staff			0.8608		0.2085
Salary of Service Staff			0.8363		0.2809
Faculty Salary				0.6143	0.3529
ACT Math75th Percentile				0.9279	0.1087
SAT Math75th Percentile				0.9276	0.0920

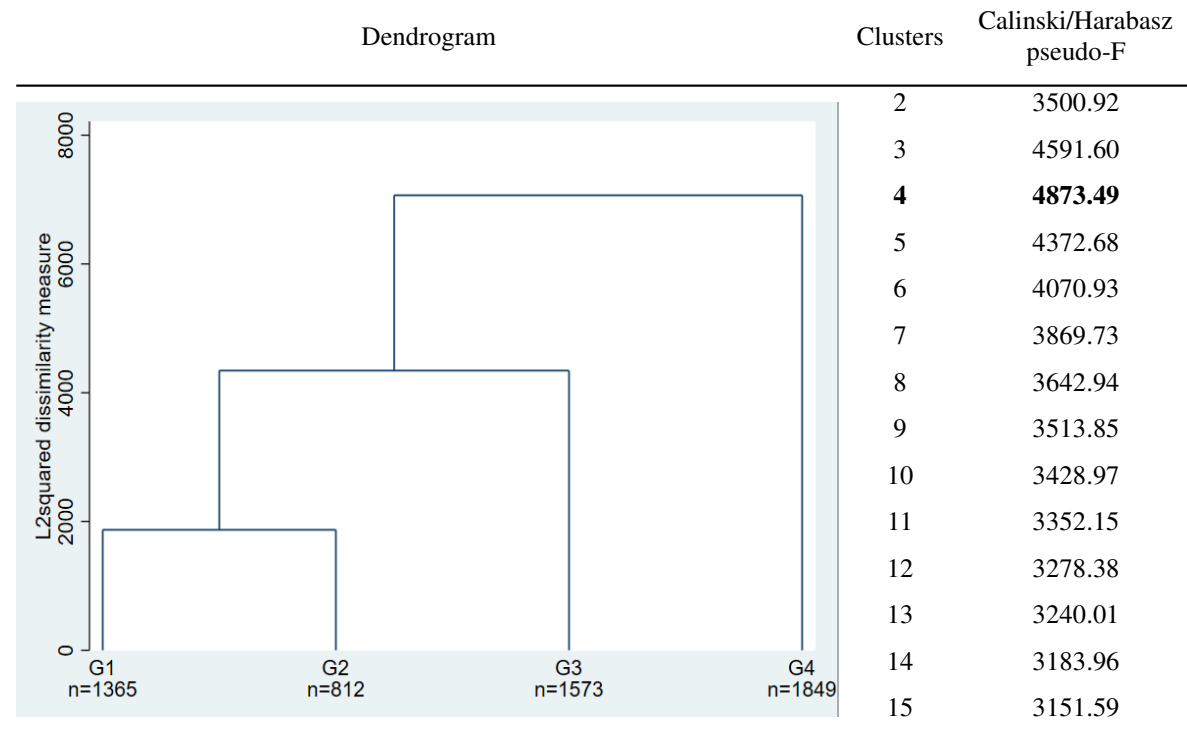




# Cluster Analysis

The Ward's hierarchical clustering procedure was utilized to determine the most appropriate number of clusters to apply to the analysis; additionally, the Calinski/Harabasz stopping rule confirmed Ward's cluster solution of four.

The nonhierarchical clustering methods of kmeans, and kmedian were independently performed to optimize the cluster algorithms; the remainder of the analysis will utilize the kmeans clustering technique due to its favorable even distribution.





# Cluster Analysis (continued)

Cluster	N	%	Prestige and Excellence		Variety and Flexibility		Diversity and Community		Value and Utility		FOIA Schools	FOIA Requests
			Dormitory Capacity	Publication	Hybrid Learning	Federal Funding	African American	Hispanic	Published Tuition	Student Retention Rate		
<b>Differentiation Focused</b>	1,418	27.1%	<b>959</b>	<b>26</b>	8.8%	\$1,400	10%	14%	\$12.0k	74%	376	1,783
<b>Differentiation</b>	1,459	25.2%	263	12	<b>14%</b>	<b>\$1,900</b>	18%	14%	\$7.1k	60%	167	363
<b>Cost Leadership</b>	1,243	23.4%	11	0	5.6%	\$700	<b>22%</b>	<b>21%</b>	\$4.0k	62%	13	19
<b>Cost Focused</b>	1,479	24.3%	6	0	2.6%	\$860	19%	20%	<b>\$3.8k</b>	<b>81%</b>	5	35
Total	5,599	100.0%									561	2,200
ANOVA P-value												
Ward's			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
kmeans			0.000	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

The selected variables were not part of the cluster analysis for the exception of publication and federal funding as these variables provide a unique window into the qualitative analysis and provide necessary context to the market segments.



# Logistic Regression

The **dependent variable** utilized to perform the logistic regression model is a categorical variable that indicates if a higher educational institution engaged in information acquisitions activity, or not, and is named DummyF. DummyF is accumulative, meaning that the variable indicates if a higher educational institution engaged in information acquisition behaviors during the year a FOIA request was submitted to the US Government, and all following years thereafter. Consequently, DummyF is zero for all years preceding the first FOIA request.

Variable	Prestige and Excellence	Variety and Flexibility	Diversity and Community	Value and Utility	N
<b>Differentiation Focused</b>	† 64.60*** (-11.25)	† 3.151*** (-6.58)	1.169 (-0.42)	2.766*** (-6.44)	1,418
<b>Differentiation</b>	† 68.93*** (-6.88)	† 4.485*** (-7.02)	2.249 (-1.7)	2.043** (-3.16)	1,459
<b>Cost Leadership</b>	4523.5 (-1.72)	47.77*** (-3.38)	3.49 (-0.78)	0.593 (-0.62)	1,243
<b>Cost Focused</b>	238492.5* (-2.19)	20.87 (-1.88)	6.968 (-1.54)	0.799 (-0.15)	1,479
Total					5,599





# Codes

The qualitative analysis began with a limited coding process where the FOIA log narratives were manually reviewed and coded rendering the four themes of grant and publication development, complaint, and investment. Narratives that were blank or indiscernible were coded as NA.

Following the coding process, additional supplementary qualitative data was collected to generate a connection between FOIA collection activities and the development of competitive advantages within the market of higher education.

Market Segments	Prestige and Excellence	Variety and Flexibility	Complaint	Investment	NA	Total
	Publication	Grant				
<b>Differentiation Focused</b>	560	686	140	360	37	1,783
<b>Differentiation</b>	113	195	42	1	12	363
<b>Cost Leadership</b>	8	9	2	0	0	19
<b>Cost Focused</b>	11	23	0	0	1	35
Total	692	913	184	361	50	2,200

# Qualitative



Market Segments	Prestige and Excellence	Variety and Flexibility
	Publication Development	Grant Development
Differentiation-Focused	<b>Vermont Law School</b> <ul data-bbox="331 691 1094 870" style="list-style-type: none"> <li>• Publication pertaining to froth floatation discharge during mining operations throughout the United States and its legal impacts</li> <li>• Contributions to a publication referencing watershed protections in South Carolina</li> </ul>	<b>Fitchburg State College</b> <ul data-bbox="1119 691 1955 756" style="list-style-type: none"> <li>• \$1.2M Upward-Bound Math and Science grant award designed to increase enrollments into the math and science disciplines</li> </ul>
	<b>Randolph-Macon College</b> <ul data-bbox="331 954 1045 1019" style="list-style-type: none"> <li>• Development of a publication outlining the history of Jewish holdings in Iraq</li> </ul>	<b>Augusta University</b> <ul data-bbox="1119 954 1955 979" style="list-style-type: none"> <li>• \$1.3M National Institutes of Health grant to study lung disease</li> </ul>
Differentiation	<b>University of North Carolina</b> <ul data-bbox="331 1105 1094 1211" style="list-style-type: none"> <li>• Publication development on the history of the Attica Prison Riot resulting in a <i>Pulitzer Prize</i>; the incorporation of the material into a law course curriculum</li> </ul>	<b>Albright College</b> <ul data-bbox="1119 1105 1955 1243" style="list-style-type: none"> <li>• Two grants awards from the Department of Education valued at \$752,322 for the procurement of laboratory equipment</li> <li>• The award of two Fulbright-Hays grants to further international interchanges in South America</li> </ul>



# Vermont Law School

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Vermont Law School is a private law school located in South Royalton, Vermont that specializes in environmental, food, and energy law and is a member of the differentiation-focused market segment.

The Vermont Law School submitted three FOIA requests to the Environmental Protection Agency in 2009 requesting information on froth flotations caused by milling operations (Environmental Protection Agency, 2009); subsequently, Professor Mark Latham published a paper within the Virginia Environmental Law Journal about mining operations and the impact of froth flotations on the environment (Latham, 2010).

Additionally, the Vermont Law School submitted a FOIA request to the Environmental Protection Agency requesting “data relating [to] any environmental information pertaining to water quality in Lake Hartwell and the Tugaloo River Branch water” way (Environmental Protection Agency, 2010). In the winter of 2010 Professor Cooper contributed to the South Carolina Voter where the water quality of the Lake Hartwell and the Tugaloo River Branch were discussed (Yainsac, 2010).



# University of North Carolina

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The University of North Carolina is a large public university system that oversees a set of campuses through the state of North Carolina.

The university submitted a FOIA request to the US Department of Defense in 2009 requesting “all documents related to the Army National Guard Headquarters that mentioned the Attica State Correctional Facility” (US Department of Defense, 2006); Professor Thompson, was a member of the North Carolina History Department between 1997 to 2009 and won a Pulitzer Prize for her work on the 1971 Attica prison riots (Inside UNC Charlotte, 2017). Additionally, the University of North Carolina offers a course in the Use of Force Policy in Criminal Justice where the Attica Prison riot serves as a subject control event for the course (The University of North Carolina).



# Randolph-Macon College

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**Randolph-Macon College** is a small private liberal arts college located in Ashland, Virginia which specializes in the study of civilizations, arts and literature, natural and social sciences, mathematics, foreign languages, and wellness.

Randolph-Macon submitted three FOIA requests between the years of 2005 and 2006 requesting information from the US Department of Defense citing “Iraqi government documents captured by U.S. Army forces in Baghdad, Iraq, in May 2003”; furthermore, the requests go on to specifically solicit information the activities of “sixteen soldiers from the U.S. Army’s Mobile Exploration Team Alpha [that occurred on] 6 May 2003” (US Department of Defense, 2005, 2006). Subsequently, Professor Michael Fischbach published an article in the 2008 fall addition of the Middle East Report about Jewish property in Iraq. Specifically, the article cited the US Army’s Mobile Exploration Team Alpha’s operation that occurred on 6 May 2003. The operation colluded with Iraqi intelligence along with members of the Iraqi National Congress to secure culturally valuable documents, scrolls, and artifacts of Jewish history in Iraq (Fitchbach, 2008; Fischbach, 2020).



# Fitchburg State College

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A small liberal arts public college located in Massachusetts that prides itself on its nursing, media, education, business, and industry technology programs.

Fitchburg College submitted a FOIA request to the Department of Education in 2016 requesting the "four top scoring applications funded" for the Upward Bound grant, specifically for math and science CFDA# 84.047 (US Department of Education, 2016). The Upward Bound grant is a grant provided by the US Department of Education designed to “increase the rate at which participants complete secondary education and enroll in, and graduate from, institutions of postsecondary education” (US Department of Education, 2020). Subsequently, Fitchburg State College won a \$866,630 Upward Bound Math and Science Program CFDA# 840.47 grant in September 2017 (US Treasury Department, 2020).



**AUGUSTA**  
UNIVERSITY

# Augusta University

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Augusta University is a public research institution and medical center located in Augusta, Georgia and is a member of the differentiation-focused market segment.

Augusta University engaged in an extensive FOIA collection campaign in the years of 2017 and 2018 to the National Institutes of Health (NIH). One of the FOIA requests solicited the “research strategy and specific aims sections of the most recently awarded grant application for: 1) R01HL125522, 2) R01HL125440, and 3) R01HL133046” (National Institutes of Health , 2018). The Federal Award Identification Number (FAIN) of R01HL133046 correlates to a M2.6\$ research grant awarded to the Baystate Medical Center located in Springfield Massachusetts to study lung disease under the Catalog of Federal Domestic Assistance (CFDA) program of 93.838 (US Department of the Treasury, 2020d). Consequently, Augusta University won two CFDA 93.838 grants from the National Institutes of Health worth a combined M2.3\$ in 2018 and 2019 to study lung disease. (US Department of the Treasury, 2020b; US Department of the Treasury, 2020c).



# Albright College

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Albright College is a small private liberal arts institution in Pennsylvania that features a host of degree programs ranging from technology, language to fashion and is a member of the differentiation market segment.

Albright College engaged in thirteen FOIA requests to the US Department of Education between the years of 2009 to 2015. Two requests were made referencing the Department of Education's "Major Research Instrumentation Program (MRI)" and the Science, Technology and Engineering (S-STEM)" grants between 2009 and 2011 (National Science Foundation, 2009; US Department of Education, 2011). Consequently, Professor Sonntag of Albright College's Department of Chemistry and Bio-chemistry won an S-STEM grant worth \$627,322 between the years of 2014 to 2018 and an MRI grant worth \$125,000 to procure a low-voltage micron microscope (Sonntag, 2020).

Albright College also submitted two FOIA requests to the US Department of Education referencing the Fulbright-Hays Grant (US Department of Education, 2014; US Department of Education, 2013); Consequently, Professor Jogan was awarded two Fulbright-Hays grants to facilitate an education interchange between the United States, Chile, and Peru (Jogan, 2020).



# Results and Discussion

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Results

Discussion and Contributions to the Literature





# Results

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The differentiation and differentiation-focused institutions contain all of the statistically significant results between FOIA activity and indicators of competitive advantages within all assessed factors, with the exception of diversity and community. Overwhelmingly, prestige and excellence is the dominate segment influenced by FOIA activity indicating that:

- 1. faculty productivity associated with publishing,**
- 2. institutional infrastructure related to physical library size,**
- 3. a healthy student enrollment,**
- 4. curriculum development of doctoral and master's degree plans, and**
- 5. full-time faculty employment**

are the principal indicators of favorable FOIA activity.

# Discussion and Contributions to the Literature

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The statistical evidence suggests that FOIA activity is a healthy contributor in elevating faculty productivity associated with publishing, and is a prominent contributor to a higher educational institutions' prestige and excellence, as institutions that engage in information acquisitions behaviors possesses more robust libraries, healthy student enrollments, and more extensive master's and doctoral programs over institutions that do not engage in information acquisition activities.

Additionally, this analysis provides qualitative evidence that higher educational institutions use information acquisitions to **conduct research to explore rich subject matter in numerous disciplines** to facilitate faculty productivity through publication, and to **close information asymmetries between US Government grant issuing agencies and higher educational institutions** when competing for federal funding.



# Conclusion

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Opportunity for Future Analysis

Study Limitations

- Binary Dummy FOIA Indicator
- Interviews

Questions



# Opportunity for Future Analysis

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*“the practice of commercial FOIA requests has never been given an in-depth academic treatment”*

(Kwoka, 2016, p. 9).

The subject of information acquisitions through the use of FOIA to broaden a competitive advantage within academia has been a sparsely studied topic, if studied at all. This limited body of existing academic evaluation provides considerable opportunity for future study and analysis.



# Study Limitations

## Binary Dummy FOIA Indicator

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This analysis utilized a **binary dummy variable** where the indicator was a one or a zero; meaning that the variable indicates if a higher educational institution engaged in information acquisition behaviors during the year a FOIA request was submitted to the US Government, and all following years thereafter.

The statistical method used to perform the analysis was a logistic regression model which performed an effective analysis. However, the development of a discrete, or continuous variable that represents FOIA activity on a scale would greatly increase the power of a future analysis.



# Study Limitations

## Interviews

This analysis provided the opportunity to identify individual higher educational institutions, professors, and administrators that engaged in information acquisitions activities that achieved a favorable outcome in either securing funding or developing publications.

Interviewing these individuals would be of great value in further understanding the methods, motivations, and effectiveness of information acquisition activities when administering to an academic institution or developing academic publications.

It is also believed that interviewing the individuals that engage in such activity may open additional study hypothesis opportunities within the broader subject of information acquisitions.



# Questions

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Thank you

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