#### International Conference on Higher Education (ICHE)

The Liberal Arts/ Humanities and the Professionalization of the Undergraduate Curriculum

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What Are the Humanities/ Liberal Arts?

## What Are the Humanities?

The humanities can be described as the study of how people process and document the human experience. Since humans developed these abilities, we have used <a href="philosophy">philosophy</a>, <a href="https://literature.nigion">literature</a>, <a href="religion">religion</a>, <a href="mailto:art.nigion">art</a>, <a href="mailto:music, history and language">music, history and language</a> to understand and record our world. These modes of expression have become some of the subjects that traditionally fall under the humanities umbrella. Knowledge of these records of human experience gives us the opportunity to feel a sense of connection to those who have come before us, as well as to our contemporaries.

**Stanford Humanities Center** 

## Humanities

From Wikipedia, the free encyclopedia

The humanities are academic disciplines that study human culture. The humanities use methods that are primarily critical, or speculative, and have a significant historical element - as distinguished from the mainly empirical approaches of the natural sciences. The humanities include <u>ancient and modern languages</u>, <u>literature</u>, <u>philosophy</u>, <u>religion</u>, <u>and musicology</u>. Areas that are sometimes regarded as social sciences and sometimes as humanities include <u>history</u>, <u>archaeology</u>, <u>anthropology</u>, <u>area studies</u>, <u>communication studies</u>, <u>classical studies</u>, <u>law</u>, <u>semiotics and linguistics</u>.

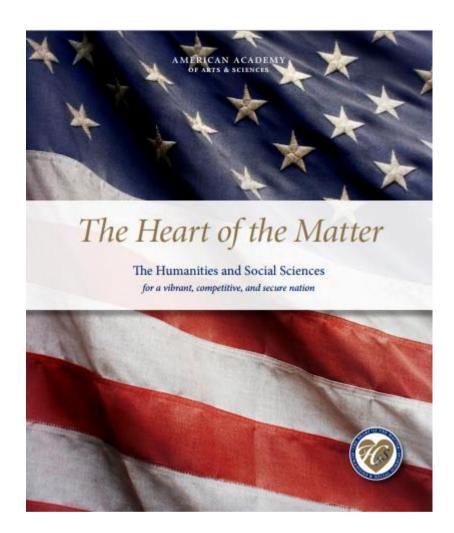
### Liberal Arts

From Merriam-Webster Dictionary

"areas of study (such as history, language, and literature) that are intended to give you general knowledge rather than to develop specific skills needed for a profession"

# The Importance of the Humanities/ Liberal Arts

# Commission of the Humanities



We live in a world characterized by change—and therefore a world dependent on the humanities and social sciences. How do we understand and manage change if we have no notion of the past? How do we understand ourselves if we have no notion of a society, culture, or world different from the one in which we live? A fully balanced curriculum—including the humanities, social sciences, and natural sciences—provides opportunities for integrative thinking and imagination, for creativity and discovery, and for good citizenship. The humanities and social sciences are not merely elective, nor are they elite or elitist. They go beyond the immediate and instrumental to help us understand the past and the future. They are necessary and they require our support in challenging times as well as in times of prosperity. They are critical to our pursuit of life, liberty, and happiness, as described by our nation's founders. They are *The Heart* of the Matter.

(p. 13)

A general education is just as important today, and it is just as clear that it must include the humanities and the social sciences. The humanities—including the study of languages, literature, history, jurisprudence, philosophy, comparative religion, ethics, and the arts—are disciplines of memory and imagination, telling us where we have been and helping us envision where we are going. The social sciences—including anthropology, archaeology, economics, political science, sociology, and psychology—are disciplines of behavioral, interpersonal, and organizational processes, employing empirical and scientific methods to reveal patterns in the lives of real people.

(p. 17)

Together, they provide an intellectual framework and context for understanding and thriving in a changing world, and they connect us with our global community. When we study these subjects, we learn not only what but how and why. The humanities and social sciences teach us to question, analyze, debate, evaluate, interpret, synthesize, compare evidence, and communicate—skills that are critically important in shaping adults who can become independent thinkers.

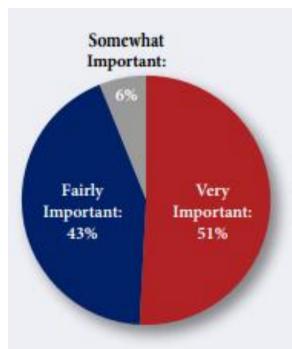
The reason some of us are so committed to liberal education is not because we want students to wander through obscure and irrelevant fields of study in a meaningless quest for "breadth" but because from first-hand experience we know the immense, life-long benefits of rigorous study of the liberal arts and sciences. Among other benefits such study strengthens clarity of written and oral expression, critical and analytic reasoning, and the creativity to think outside the box—survival skills in a tough and ever-changing economy.

(p. 22)

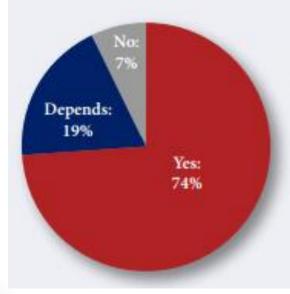
<sup>—</sup>From **W. Robert Connor** (www.wrobertconnor.com), *News & Observer*, November 12, 2012

Employers who were surveyed were given the following definition of "liberal education": "This approach to a college education provides both broad knowledge in a variety of areas of study and knowledge in a specific major or field of interest. It also helps students develop a sense of social responsibility, as well as intellectual and practical skills that span all areas of study, such as communication, analytical, and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings."

(p. 33)



Employers endorse the concept of a liberal education.



Three in four would recommend the concept of a liberal education to their own child or a young person they know.

Business leaders today are looking for a diversity of skills, and not just technical knowledge. Pivotal right now in financial services—a relationship business—is trust built around empathy, understanding, listening skills, critical thinking. It's not enough in financial services to simply be able to work with a spreadsheet. You need to convince your individual or institutional clients to take the right set of actions. The skills that come out of the humanities, the softer relationship skills listening, empathy, an appreciation for context—are incredibly important. Of the individuals in my organization who receive the most consistently positive feedback— who are most valued by our clients only a sliver ever went to business school. Most of them learned their financial activities at our firm, but came into the firm with a much broader range of skills.

-Roger W. Ferguson, Jr., President and Chief Executive Officer, TIAA-CREF

(p.34)

As colleges and universities develop digital media resources to increase access to a worldwide public, gifted teachers and scholars from all domains of study will experiment with these methods and explore their new powers. Clearly, we are on the eve of a new age of teaching and learning, the dimensions of which we can only begin to envision.

(p.35)

There is no reason liberal arts education cannot flourish in a new environment using new tools. The future will still need the human skills that the liberal arts promote, and perhaps will need them more than ever: skills in communication, interpretation, linking and synthesizing domains of knowledge, and imbuing facts with meaning and value.

(p. 35)

The Heart of the Matter identifies three overarching goals:

- 1) to educate Americans in the knowledge, skills, and understanding they will need to thrive in a twenty-first-century democracy;
- 2) to foster a society that is innovative, competitive, and strong; and
- 3) to equip the nation for leadership in an interconnected world. <u>These goals cannot be achieved by science alone</u>

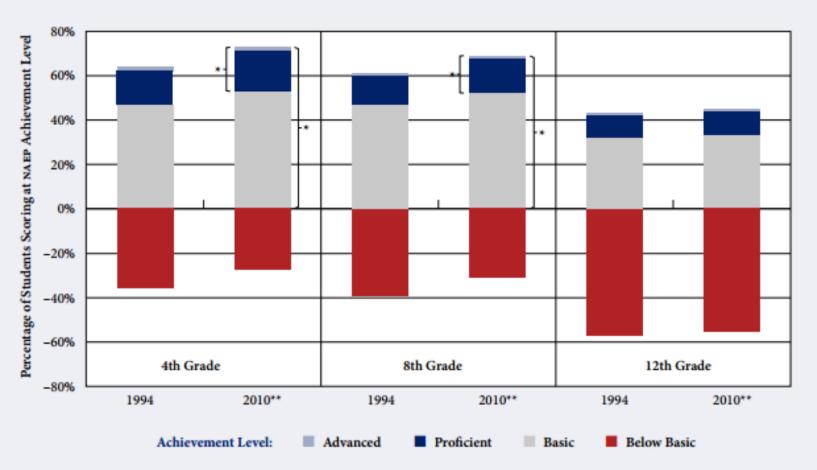
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# The Talked About Crisis or The Numbers Crisis

Evidence of the particular needs of the humanities and social sciences now reaches us from every sector. Parents are not reading to their children as frequently as they once did. Humanities teachers, particularly in K-12 history, are even less well-trained than teachers of STEM subjects. And funding to support international education has been cut by 41 percent in four years. Each of these pieces of evidence suggests a problem; together, they suggest a pattern that will have grave, long-term consequences for the nation.

(p. 9)

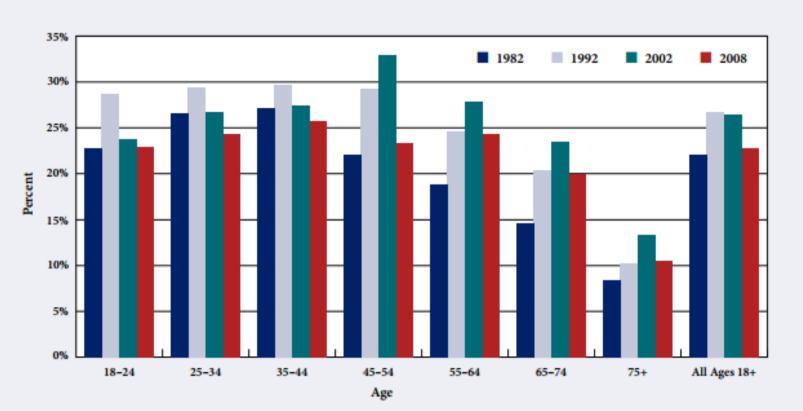
#### History Achievement of 4th, 8th, and 12th Graders as Measured by the National Assessment of Educational Progress (NAEP). 1994 and 2010



The percentage of students scoring at or above this level was significantly different (p < .05) from the percentage in 1994.</li>
 Accommodations permitted for English language learners and students with disabilities.

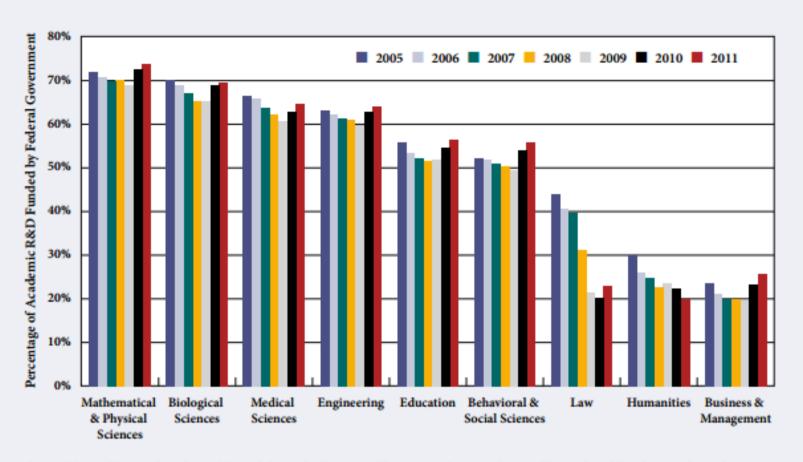
Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress, The Nation's Report Card: U.S. History 2010, NCES 2011-468 (Washington, D.C.: U.S. Government Printing Office, 2011), 2 fig. C.

#### Percentage of Americans 18 Years and Older Who Visited an Art Museum or Gallery in the Previous 12 Months, by Age, 1982-2008



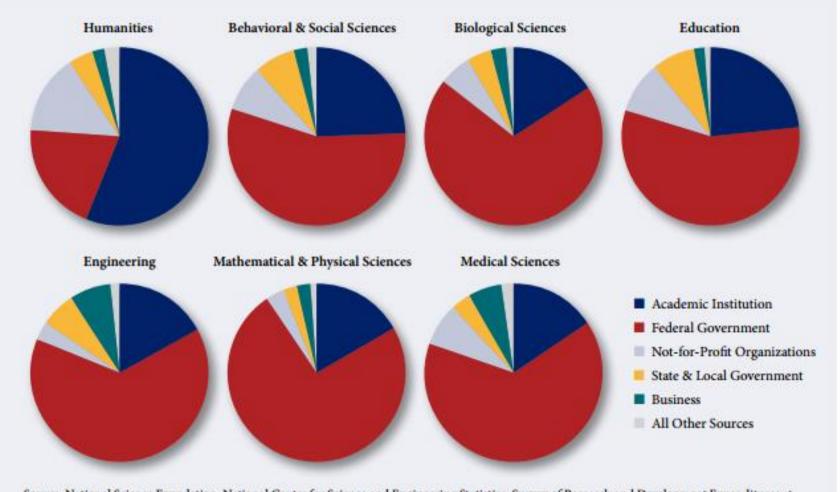
Source: National Endowment for the Arts, Survey of Public Participation in the Arts (1982, 1992, 2002, 2008). Estimates generated using the Cultural Policy and the Arts Data Archive's (CPANDA) online data analysis system at http://www.cpanda.org/stage/studies/a00260.

Federally Funded Share of Expenditures for Academic Research and Development in the Humanities and Other Selected Fields, Fiscal Years 2005–2011 (Percent)



Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Research and Development Expenditures at Universities and Colleges/Higher Education Research and Development Survey (data were accessed and analyzed using the NSF's online data analysis tool, WebCASPAR, at https://webcaspar.nsf.gov/).

#### Sources of Funding for Academic Research and Development in the Humanities and Other Selected Fields, FY 2011 (Percent)



Source: National Science Foundation, National Center for Science and Engineering Statistics, Survey of Research and Development Expenditures at Universities and Colleges/Higher Education Research and Development Survey (data were accessed and analyzed using the NSF's online data analysis tool, WebCaspar, at https://webcaspar.nsf.gov/).

"The word on the street today is that the humanities are in crisis, partly because of shrinking budgets and job-conscious students, partly because 'theory' has allegedly turned those students off..."

Johanna Drucker, Breslauer Professor of Bibliographical Studies, UCLA In review of *The Humanities "Crisis" and the Future of Literary Studies* by Paul Jay, 2014, Palgrave Macmillan

# The Crisis of the Humanities Officially Arrives

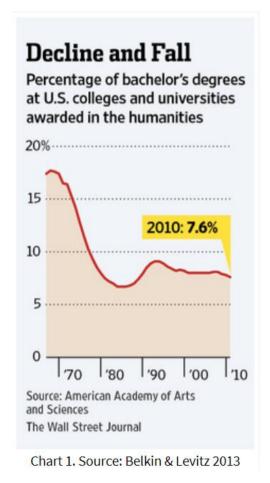
By STANLEY FISH

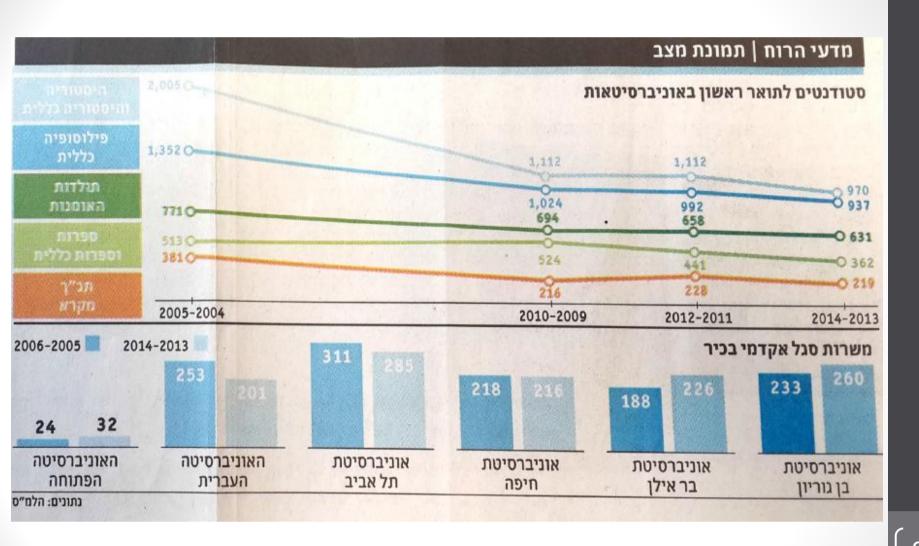
In a response to <u>last week's column on "Howl,"</u> the movie about Allen Ginsberg's famous poem, <u>Charlie from Binghamton asked</u>, "What happened to public investment in the humanities and the belief that the humanities enhanced our culture, our society, our humanity?" And he speculated that it "will be a sad, sad day if and when we allow the humanities to collapse."

What he didn't know at the time is that it had already happened, on Oct. 1, when George M. Philip, president of SUNY Albany, announced that the French, Italian, classics, Russian and theater programs were getting the axe.

#### The Crisis in the Humanities: a matter of numbers

SIRIS Academic, September 16, 2013 José Luis Mateos





Haaretz, October 19, 2014

#### Society for Classical Studies

Classics and the "Crisis" in the Humanities

By Garrett G. Fagan

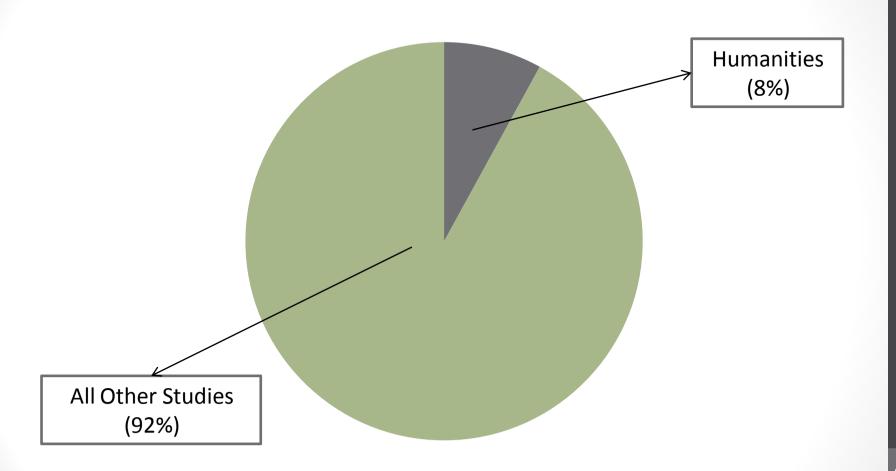
Dec. 12, 2013

- 8% of college graduates specialize in the humanities.
- At Stanford 45% of faculty sit in humanities departments, only 15% of the students major in those departments.
- Harvard has experienced a 20% decline in humanities majors

The "Crisis talk" focuses on declining enrollments in the various humanities departments and it is viewed from a narrow discipline perspective!

# The Real Crisis... or The "Values Crisis"

# The Real "Crisis"



# The Real "Crisis"

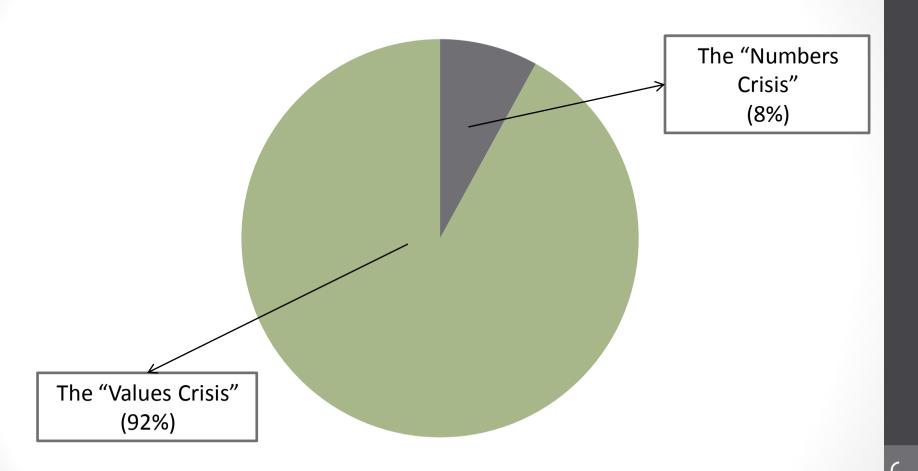
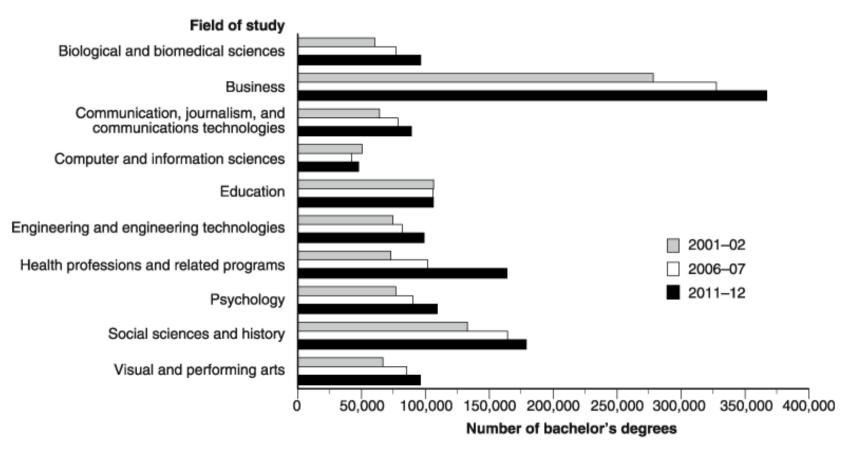


Figure 16. Bachelor's degrees conferred by degree-granting institutions in selected fields of study: 2001-02, 2006-07, and 2011-12



SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2002, Fall 2007, and Fall 2012, Completions component.

Table 322.10. Bachelor's degrees conferred by postsecondary institutions, by field of study: Selected years, 1970-71 through 2011-12

Field of study	1070-71	1975-76	1000-01	1005-06	1990-91	1995-96	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
1	2 2	19/3-/6	1900-01	1903-00	1990-91	7	2000-01	2001-02	10	2003-04	12	13	14	15	16	17	18	19
Total	839.730	925,746	935,140	987.823	1.094.538	1.164.792	1.244.171	1.291.900	1.348.811		1,439,264	1,485,242	1.524.092			1.650.014		
Agriculture and natural resources	12,672	19,402	21,886	16,823	13,124	21,425	23,370	23,331	23,348	22,835	23,002	23,053	23,133	24,113	24,988	26,336	28,623	30,929
Architecture and related services	5,570	9,146		9,119	9,781	8,352	8,480	8,808	9,056	8,838	9,237	9,515	9,717	9,805	10,119	10,051	9,832	9,728
Area, ethnic, cultural, gender, and group studies	2,579	3,577	2,887	3,021	4,776	5,633	6,160	6,390	6,634	7,181	7,569	7,879	8,194	8,454	8,772	8,621	9,100	9,232
Biological and biomedical sciences	35,705	54,154			39,482	61,014	60,576	60,309	61,294	62,624	65,915	70,607	76,832	79,829	82,825	86,400	90,003	95,849
Business	115,396	143,171	200,521	236,/00	249,165	226,623	263,515	278,217	293,391	307,149	311,574	318,042	327,531	335,254	347,985	358,293	365,093	366,815
Communication, journalism, and related programs	10,324	20,045	29,428	41,666	51,650	47,320	58,013	62,791	67,895	70,968	72,715	73,955	74,783	76,382	78,009	81,266	83,274	83,770
Communications technologies	478	1,237	1,854	1,479	1,397	853	1,178	1,245	1,933	2,034	2,523	2,981	3,637	4,666	5,100	4,782	4,858	4,982
Computer and information sciences	2,388	5,652		42,337	25,159	24,506	44,142	50,365	57,433	59,488	54,111	47,480	42,170	38,476	37,994	39,589	43,072	47,384
Education	176,307	154,437		87,147	110,807	105,384	105,458	106,295	105,845	106,278	105,451	107,238	105,641	102,582	101,708	101,265	103,992	105,785
Engineering	45,034	38,733	63,642	77,391	62,448	62,168	58,209	59,536	62,567	63,410	64,707	66,841	66,874	68,431	68,911	72,654	76,376	81,382
Engineering technologies	5.148	7,943	11.713	19.731	17,303	15.829	14.660	15,052	14,664	14,669	14,837	14.565	14,980	15,177	15,503	16,075	16.741	17,158
English language and literature/letters	63,914	41,452		34,083	51,064	49,928	50,569	52,375	53,699	53,984	54,379	55,096	55,122	55,038	55,462	53,231	52,744	53,767
Family and consumer sciences/human sciences	11,167	17,409	18,370	13,847	13,920	14,353	16,421	16,938	17,929	19,172	20,074	20,775	21,400	21,870	21,905	21,818	22,444	23,428
Foreign languages, literatures, and linguistics	20,988	17,068		11,550	13,937	14,832	16,128	16,258	16,912	17,754	18,386	19,410	20,275	20,977	21,158	21,516	21,706	21,764
Health professions and related programs	25,223	53,885	63,665	65,309	59,875	86,087	75,933	72,887	71,261	73,934	80,685	91,973	101,810	111,478	120,488	129,634	143,430	163,440
Homeland security, law enforcement, and																		
firefighting	2,045	12,507	13,707	12,704	16,806	24,810	25,211	25,536	26,200	28,175	30,723	35,319	39,206	40,235	41,800	43,667	47,602	53,767
Legal professions and studies	545	531	776	1,223	1,827	2,123	1,991	2,003	2,474	2,841	3,161	3,302	3,596	3,771	3,822	3,886	4,429	4,592
Liberal arts and sciences, general studies,																		
and humanities	7,481	18,855		21,336	30,526	33,997	37,962	39,333	40,480	42,106	43,751	44,898	44,255	46,940	47,096	46,953	46,727	46,925
Library science	1,013	843	375	155	90	58	52	74	99	72	76	76	82	68	78	85	96	95
Mathematics and statistics	24,801	15,984	11,078	16,122	14,393	12,713	11,171	11,950	12,505	13,327	14,351	14,770	14,954	15,192	15,496	16,030	17,182	18,842
Military technologies and applied sciences	357	952	42	255	183	7	21	3	6	10	40	33	168	39	55	56	64	86
Multi/interdisciplinary studies	6,324	13,709	12,986	13,754	17,774	26,885	26,478	28,049	27,449	28,047	28,939	30,583	32,111	34,174	35,375	37,648	42,228	45,716
Parks, recreation, leisure, and fitness studies	1,621	5,182		4,623	4,315	12,974	17,948	18,885	21,432	22,164	22,888	25,490	27,430	29,931	31,667	33,318	35,924	38,993
Philosophy and religious studies	8,149	8,447	6,776	6,396	7,423	7,541	8,717	9,473	10,344	11,152	11,584	11,985	11,969	12,257	12,444	12,504	12,836	12,651
Physical sciences and science technologies	21,410	21,458	23,936	21,711	16,334	19,716	18,025	17,890	18,038	18,131	19,104	20,522	21,291	22,179	22,688	23,379	24,712	26,663
Precision production	0	0	0	2	2	12	31	47	42	61	64	55	23	33	29	29	43	37
Psychology	38,187	50,278	41,068	40,628	58,655	73,416	73,645	76,775	78,650	82,098		88,134	90,039	92,587	94,271	97,216	100,893	108.986
Public administration and social services	5,466	15,440	16,707	11,887	14,350	19,849	19,447	19,392	19,900	20,552	21,769	21,986	23,147	23,493	23,851	25,414	26,774	29,695
Social sciences and history	155,324	126,396			125,107	126,479	128,036	132,874	143,256	150,357	156,892	161,485	164,183	167,363	168,500	172,780	177,144	178,543
Theology and religious vocations	3,720	5,490	5,808	5,510	4,799	5,292	6,945	7,762	7,962	8,126	9,284	8,548	8,696	8,992	8,940	8,718	9,074	9,369
Transportation and materials moving	0	225	263	1.838	2,622	3,561	3,748	4,020	4,631	4.824	4,904	5,349	5,657	5,203	5,189	4.998	4.941	4,876
Visual and performing arts	30,394	42,138			42,186	49,296	61,148	66,773	71,482	77,181	80,955	83,297	85,186	87,703	89,140	91,802	93,956	95,797
Not classified by field of study	0	0	0	0	13,258	1,756	783	264	0	0	0	0	0	377	0	0	0	0
NOTE:	Data throu	-h 1000 0	4 4 1-	etitutione	of Makes and	nation while	leter dete			434.45 41	-441-14	- I- TH- DV	tedesel force	atal atal				

NOTE: Data through 1900-91 are for institutions of higher education, while later data are for postsecondary institutions that participate in Title IV federal financial aid programs. The new Classification of Instructional Programs was initiated in 2009-10. The figures for earlier years have been reclassified when necessary to make them conform to the new taxonomy. To facilitate trend comparisons, certain aggregations have been made of the degree fields as reported in the Integrated Postsecondary Education Data System (IPEDS): "Agriculture and natural resources" includes Agriculture, agriculture operations, and related sciences and Natural resources and conservation; "Business" includes Business, management, marketing, and related support services and Personal and culinary services; and "Engineering technologies and engineering-related fields, Construction trades, and hechanic and repair technologies/technicians.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education General Information Survey (HEGIS), "Degrees and Other Formal Awards Conferred" surveys, 1970-71 through 1985-98; Integrated Postsecondary Education Data System (IPEDS), "Completions Survey" (IPEDS-C:91-99); and IPEDS Fall 2000 through Fall 2012, Completions component. (This table was prepared July 2013.)

Bachelor's degrees conferred by postsecondary institutions, by field of study: Selected years, 1970-71 through 2011-12

	1970-71	1980-81	1990-91	2000-01	2005-06	2011-12
Total	839,730	935,140	1,094,538	1,244,171	1,485,242	1,791,046
English language and literature/lett ers	63,914	31,922	51,064	50,569	55,096	53,767
Foreign languages, literatures, and linguistics	20,988	11,638	13,937	16,128	19,410	21,764
Liberal arts and sciences, general studies, and humanities	7,481	21,643	30,526	37,962	44,898	46,925
Philosophy and religious studies	8,149	6,776	7,423	8,717	11,985	12,651
Theology and religious vocations	3,720	5,808	4,799	6,945	8,548	9,369
Sub Total	104,252	77,787	107,749	120,321	139,937	144,476
% of Total	12.4	8.3	9.8	9.7	9.4	8.1

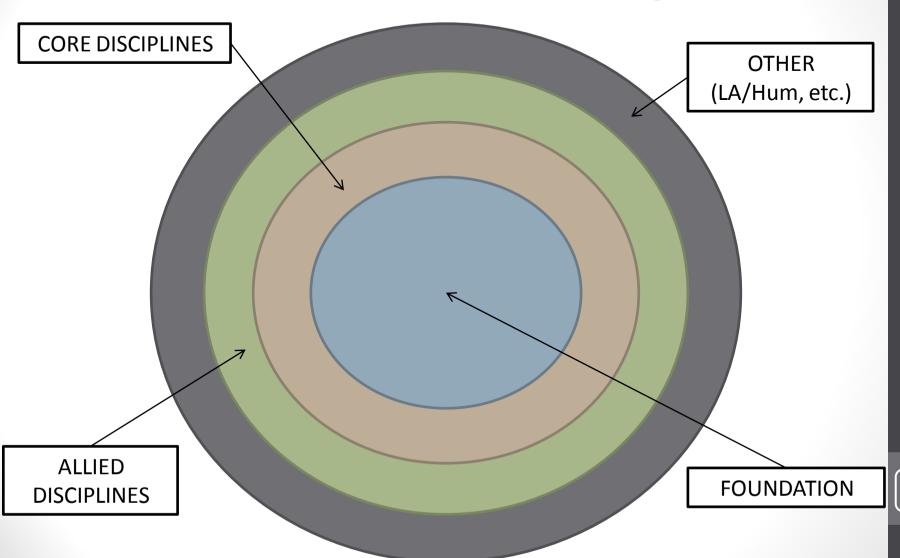
The vast majority of college and university graduates do not benefit from the values and ethics imbedded in the study of humanities

# Reason...

One of the main reasons is the slow/creeping professionalization of the undergraduate curricula!

# The Professional Degree

# The Professional Degree



40

# Columbia University Bulletin School of Engineering & Applied Science 1962-1963

Total Credits for B.S degree (IE)

Total LA/Humanities

### Credits

142.5 (100%)

26.0 (18.2%)

## The SEAS 1962/3 – Credits Distribution

	Credits	<u>Credits</u>	
Foundation	43.5	(30.5%)	
Allied	30.0	(21.1%)	
Core	43.0	(30.2%)	
LA/Hum.	26.0	(18.2%)	
	142.5	100%	

#### **Mission**

Columbia Engineering, The Fu Foundation School of Engineering and Applied Science at Columbia University in the City of New York, prepares talented students to become innovative, socially responsible leaders in industry, government, and academia. Our education is grounded in the fundamental principles and creative approaches of engineering, while being critically informed by the broader perspective of a distinguished liberal arts education. This interdisciplinary education mission is enriched by a research endeavor focused on expanding the knowledge base of engineering and creating technological solutions that serve society. Columbia students, faculty, and alumni strive to improve the human condition locally, nationally, and globally with their enthusiasm to learn, to question, and to solve some of the world's most pressing current and future challenges.

### But...

This is not a typical program.

Most undergraduate professionally oriented programs will at best have 10-12 LA/Humanities credits.

BGU engineering for example started with 12 pts. – down to 6 pts.!

Why are professional schools reluctant to adopt a Columbia type model?

## In Recent Decades...

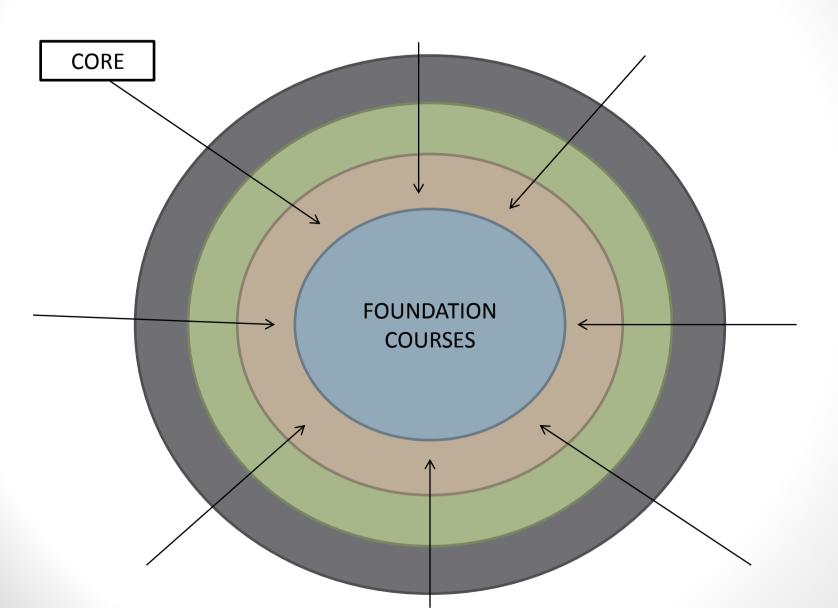
- Explosion of Knowledge
- New fields of study
- New technologies

# Knowledge Doubling Curve

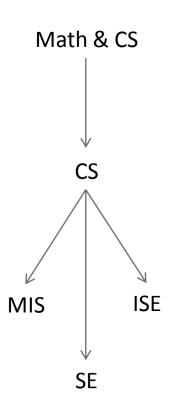
"Buckminster Fuller created the 'Knowledge Doubling Curve'; he noticed that until 1900 human knowledge doubled approximately every century. By the end of World War II knowledge was doubling every 25 years. Today things are not as simple as different types of knowledge have different rates of growth. For example, nanotechnology knowledge is doubling every two years and clinical knowledge every 18 months..."

**David Russell Schilling**, "Knowledge Doubling Every 12 Months, Soon to be Every 12 Hours", *industry tap into news*.

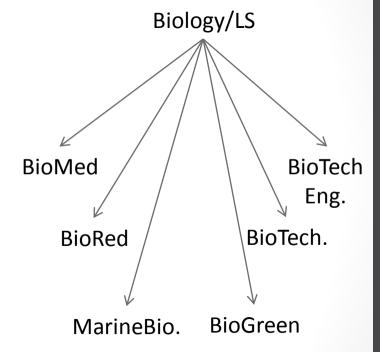
### Pressure of New Knowledge/ New Technology



# Creation of New Disciplines



**NANOTECHNOLOGY** 



# How do disciplines react to this pressure?

### Given that:

- There is a perceived need to expand the core
- There is an upper limit of total credits
- It cannot "weaken" the foundation
- Risk of split/spin off new disciplines

# The typical approach...

### **CANNIBALIZE!**

And do so by taking the path of least resistance:

- a. Shrink LA/Humanities...
- b. Shrink allied disciplines...

# Change of Direction...

The Humanities must become part of the "foundation" of all professional programs!

## Possible Barriers...

- "Territorialism" of professions
  - Loss of lines
- Accreditation bodies
  - Diluting discipline
- Employers
  - Reduce on-the-job training
- University/College Administrations
  - Reluctance to tackle issue of budget/lines reallocation

## Possible Aids...

International organizations dealing with student/faculty mobility, cooperation, credit transfer (European organizations, UNESCO, etc.) should champion a minimal humanities "foundation" program to be incorporated into the curriculum of every professional discipline.

### Such a program should consist of a:

- Universal module
- Continent/ Regional module
- Country/ Local module

All the scientific and technological skills of which we can conceive will not solve our world problems if we do not build and adapt a base of human and cultural understanding; ethical and moral underpinnings; sensible rules of law for the 21st century; and integration with the insights, inspirations, and communications of the arts.

-Charles M. Vest, President, National Academy of Engineering

*The Heart of the Matter* p.44

If we aspire to provide a four-year college education that transcends the acquisition of specific job skills, we need to be able to specify what the content of such an education would be, and what would constitute the measure of its assessment. If, for instance, we actually believe that college students should receive a "liberal" education, what do we have to do to ensure that they are receiving it?

—From **Stanley Katz**, "The 'Best-Educated' Country," *The Chronicle of Higher Education*, April 14, 2010

*The Heart of the Matter* p.30

In presenting a case for the establishment of the NEH and its partner agency, the National Endowment for the Arts, Glenn Seaborg, then head of the Atomic Energy Commission and a member of the 1964 Commission on the Humanities, told a Senate committee:

We cannot afford to drift physically, morally, or esthetically in a world in which the current moves so rapidly perhaps toward an abyss. Science and technology are providing us with the means to travel swiftly. But what course do we take? This is the question that no computer can answer.

## Contention...

Solving the "Values Crisis" will also
Solve the "Numbers Crisis"

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"Note too that a faithful study of the liberal arts humanizes character and permits it not to be cruel"

Ovid  $(43BC - AD \sim 18)$ 

# Thank You!