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COLLEGE COURSE-TAKING PATTERNS IN THE ARTS

This note draws on *The Empirical Curriculum*, a study of college course-taking patterns published by the Department of Education. Courses are tracked for three cohorts: adults in the high school graduating classes of 1972, 1982, and 1992 who went on to earn more than 10 college credits within 8.5 years of completing high school. Topics covered by the note include changes in the percentage of students taking particular arts courses (e.g., art history and film arts), and the share earning degrees in the arts. It also investigates college arts course-taking by gender and race.

Executive Summary

Percent earning > 10 college credits in the high school class of: **Aggregate Category** Change 1982 1972 1992 Art History n.a. 14.5 19.0 Increase Film Arts 10.0 8.2 No statistically significant change n.a. Fine Arts 17.2 16.8 No statistically significant change n.a. Graphics, Design n.a. 8.9 12.3 Increase Literature/Letters 40.5 43.7 Increase n.a. Music, Performance 8.8 8.9 Decrease 11.7 Music: Other 20.8 28.1 Increase n.a. Textiles, Clothing n.a. n.a. 1.3 n.a. Theater, Dance 10.2 18.7 Increase n.a.

ⁱ This research note summarizes data from Adelman, C. 2004. *The Empirical Curriculum: Changes in Postsecondary Course-Taking, 1972-2000.* Washington, DC: U.S. Department of Education, as well as some data from Adelman, C. 2004. *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972-2000.* Washington, DC: U.S. Department of Education.

TRENDS IN COLLEGE COURSE-TAKING IN THE ARTS

Arts courses are reported as both aggregate categories and discrete courses categories that comprise the aggregates. For example, the aggregate Fine Arts category includes discrete course categories in Photography, Painting, and Color Theory. For most of the arts courses analyzed in this note, aggregate categories are only available for the 1982 and 1992 cohorts. Trends in arts course-taking, in fact, are largely tracked by comparing the aggregates of these two classes. Many of the discrete course categories, however, are documented for all three classes: 1972, 1982, and 1992. Changes in discrete arts course categories, where available, provide detail to the patterns revealed in the aggregate categories.

Art History

The percentage of students who took Art History courses increased from 14.5 percent for the Class of 1982 to 19 percent for the Class of 1992. Increases in the share of students who studied the history of architecture and non-western art contributed to the overall gain recorded in art history courses.

Film Arts

There was no significant change in the percentage of students who studied Film Arts—roughly 10 percent of both the 1982 and 1992 classes earned credits in Film Arts. A small gain was reported among those who took courses in the history of film and film theory (4.2 percent for the 1992 class vs. 3.3 percent for the 1982 class). But course-taking remained about the same for general film arts (3 percent of the 1982 and 1992 classes) and cinematography (1 percent of both classes).

Fine Arts

There was no significant change in the share that took Fine Arts courses—about 17 percent of students of both graduating classes (1982 and 1992) studied fine arts. But changes occurred in many of the discrete fine arts course categories. In particular, the percentage of students who took general theory in fine arts fell. Almost 9 percent of students in the graduating class of 1972 took college courses in fine arts general theory, compared to 5.3 percent of those in the 1992 class.

Graphics and Design

Course-taking in Graphics and Design became more popular over time; 12.3 percent of the Class of 1992 took graphics and design courses, up from 8.9 percent reported for the Class of 1982. The increased popularity in the overall graphics and design category was due, in part, to gains in the share of students taking courses in theater design and stagecraft, as well as courses in visual communications.

Literature

The percentage of students who earned Literature credits increased between the Class of 1982 (41 percent) and the Class of 1992 (44 percent). Because literature courses are usually required to attain an undergraduate degree, the literature category captures a greater number of discrete course categories than other aggregate categories of art education. This also explains why it has a relatively high rate of participation. Gains in introductory literature and American literature courses, in particular, contributed to the overall increase in literature course-taking.

Music

Course-taking in Music Performance declined from 11.7 percent of the Class of 1972 to 8.9 percent of the 1992 class. Course-taking in other (non-performance) music courses, however, increased from 20.8 percent of the 1982 class to 28.1 percent of the 1992 group. Specific examples included gains in general music history and appreciation, the history of jazz, and the history of pop and rock music.

Textiles

Few students earned credits in Textile Arts. Although data for the aggregate category is only available for the Class of 1992, data for discrete course categories suggest that the share of students enrolled in the textile arts declined over time. Specifically, about 0.8 percent of students in the 1972 group took classes in fashion design; this rate fell to 0.5 percent for the Class of 1992. General textile and clothing course participation also dropped. However, the percentage taking courses in textile science remained constant at about 0.7 percent for all three cohorts.

Theater and Dance

In aggregate, Theater and Dance courses increased in popularity; 18.7 percent of the 1992 class took classes in this category, up from 10.2 percent reported for the Class of 1982. This gain developed, to a large extent, from increases in course-taking in the history of theater and drama criticism—which grew from 5.1 percent for the 1972 cohort to 11.8 percent for the 1992 group. Course-taking in dramatic arts, acting, and directing remained constant at about 6 percent for both the Class of 1972 and Class of 1992. Due to changes in the coding of dance and physical education, trends in dance credits earned are less clear.

COURSE-TAKING IN THE ARTS BY GENDER AND RACE AND ETHNICITY

Differences in arts course-taking by gender and race were investigated using data only for the Class of 1992.

Gender

About the same percentages of men and women took five of the nine arts courses covered in this note. No gender differences were recorded for course-taking in Music (both performance and non-performance classes), Art History, Fine Arts, and Graphics and Design. Significantly more women, however, took courses in Literature (46.6 percent of women vs. 40.3 percent of men), Theater and Dance (21.6 percent of women vs. 15.5 percent of men), and Textiles and Clothing (2.2 percent of women vs. 0.4 percent of men). Conversely, 10.2 percent of men took Film Arts classes, well above the 6.5 percent recorded for women.

Race and Ethnicity

In five out of nine arts subjects, course-taking differed by race and ethnicity. Compared to Asians and whites, for example, fewer African Americans took courses in Film Arts, Fine Arts, and Literature. Only 33.9 percent of African Americans in the Class of 1992 took literature courses, 12 points below the percentages reported for Asians and whites. On the other hand, performing arts courses were popular among both African Americans and whites, with about 20 percent of both groups taking classes in the category of Theater and Dance. This rate was significantly higher than the rates reported for Hispanics (12.5 percent) and Asians (11.3 percent).

ART DEGREES AWARDED, 1970-2001

All three cohorts (the high school classes of 1972, 1982, and 1992) went on to earn bachelor's degrees with majors in visual or performing arts at approximately the same rate—about 5 percent. But annual data for the 1970-2001 time frame show a more varied pattern. ii,iii

Over the 1970-2001 time frame, the percentage of bachelor's degrees in the performing and visual arts (as a share of all bachelor's degrees awarded) increased in the mid-1970s, declined throughout the 1980s, and then rose again in the 1990s and into 2001. It appears that arts degrees grew in popularity in the 1970s, when Baby Boomers were attending college. This was particularly true among students striving for bachelor's degrees. In 1970-1971, 3.6 percent of bachelor's degrees awarded were to arts majors. This share rose to 4.6 percent in 1975-76. When Gen-X'ers headed to college, however, the popularity of arts degrees had declined, falling to 3.7 percent in 1986-87.

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ii Annual data come from the U. S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics*. Washington: U. S. Government Printing Office, 2002, Tables 246, 250, and 297.

Performing and visual art degrees cover the fields of fine arts, design and music, and visual and performing arts. Performing and visual art degrees do not include degrees in English language and literature/letters or foreign languages or literatures

More recently, however, it appears that arts degrees have experienced newfound popularity. Although the percentage of college graduates receiving master's degrees in the arts has not rebounded since the mid-1980s, the percentage of associates degrees and bachelor's degrees in the arts has increased since 1990. By 2000-01, 4.9 percent of all bachelor's degrees were awarded to arts majors. iv

HIGH ENROLLMENT ARTS COURSES

Looking at the Class of 1992, 14 art course categories were among the top 100 discrete categories (out of 1,150) that enrolled the highest percentage of students who earned more than 10 college credits. In fact, the English/freshman composition course category ranked number one. Among the Class of 1992, 79.4 percent of students took an average of 5 credits in this subject. Although not counted in the aggregate Literature category discussed earlier, the course category is noted here because of its high enrollment and broad connection to the literary arts. It is also generally required to obtain a degree and is often taken during the first year of college. Introduction to literature and American literature also ranked fairly high, with 19.9 percent and 13.2 percent of students earning credits, respectively.

Other arts courses on the top 100 list included music appreciation, introduction to theater, and art history—between 12 and 13 percent of students in the Class of 1992 students earned college credits in these categories.

"A" GRADES AND FAILURES

Of the 20 undergraduate courses with the highest proportions of "A" grades taken by the Class of 1992, six were arts courses. Music performance ranked first, with 64.2 percent of "A" grades or equivalent – as compared to an average of 28.4 percent for all course categories. The other courses included on the "A" listing for the Class of 1992 included theater (52.5 percent), stagecraft (46.2 percent), dance (45.6 percent), creative writing (44.5 percent) and basic musicianship/solfeggio (37.3 percent).

One arts course appears among the 20 with the highest proportions of failures. Approximately 8.1 percent of the Class of 1992 who took introduction to fine arts courses received failures or other penalty grades.

^{iv} Early Baby Boom (born 1946-1955); late Baby Boomers (born 1956-1965); Generation X (born 1966-1975); Net Kids, a.k.a. Generation Y, (born 1976-1981).

Introduction

Arts instruction is an important aspect of formal education and cultural development. Research suggests that adults' lifetime exposure to arts education is strongly associated with higher educational attainment. In fact, data suggest that certain categories of arts study are more likely to occur as adults than as youth. For example, art and music appreciation classes are more likely to be reported as adult experiences than ballet instruction or music lessons, which tend to occur before age 18. Clearly, arts instruction in higher education is a unique experience. So what are students studying? Has postsecondary course-taking in the arts changed over time? This research note explores these questions by summarizing data presented in the recent report, *The Empirical Curriculum*, released by the U.S. Department of Education. That report, and its companion *Principal Indicators of Student Academic Histories in Postsecondary Education*, examines postsecondary transcript data from three overlapping grade-cohort longitudinal studies:

- 1. The National Longitudinal Study of the High School Class of 1972. Transcripts were collected in 1984, when the students were 30 or 31 years old.
- 2. The High School and Beyond/Sophomore Cohort study. Transcripts were collected in 1993, when the students were 29 or 30 years old.
- 3. The National Educational Longitudinal Study of 1988. Transcripts were collected in 2000, when the students were 26 or 27 years old.

Because the data are based on transcript studies, they reflect the course categories in which students *enrolled*, as opposed to the types of courses *offered*.

HISTORICAL CONTEXT

The High School Class of 1972

The high school classes of 1972, 1982, and 1992 are markedly different. The Class of 1972 graduated during the Vietnam War and faced the Watergate scandal within weeks of graduation. A stagnating economy improved, wage and price controls were lifted, and the national unemployment rate of 5.6 percent suggested reasonable job prospects. In 1972, 59 percent of seniors reported that they planned to enroll in college after high school graduation, while 32 percent planned to work. Approximately 1.48 million members of the Class of 1972 went on to earn more than 10 college credits, and about 674,000 earned a bachelor's degree.

These members of the Baby Boom generation faced a unique social environment in the early 1970s. Increasing numbers of women were going to college and entering the workforce. At the same time, the civil rights movement had propelled racial integration of schools. Still at the vanguard of these changes, the high school Class of 1972 was the least diverse of the three studied here. Of graduating seniors, 86 percent were white, nine percent were black, and slightly less than four percent were Hispanic. Asians constituted about one percent of the graduating class.⁸

The High School Class of 1982

The Class of 1982 was large. It was the last and one of the largest baby-boom cohorts, and most likely taxed the capacity of primary, secondary, and tertiary schools. Approximately 1.79 million members of the Class of 1982 went on to earn more than 10 college credits, and 737,000 earned a bachelor's degree. Unfortunately, the large number of graduates in 1982 faced a meager economic outlook. By 1982, the national unemployment rate had doubled to about 10 percent.

The large Class of 1982 was somewhat more diverse than that of 1972. Data for 1980 suggest that the percentage of whites in the graduating class had dropped to about 80 percent, while the percentage of blacks had increased to nearly 12 percent, Hispanics to approximately 6 percent, and Asians to a little over 1 percent. 12

The 1980s were a period of budget cuts and an emphasis on basic academic subjects. *Toward Civilization* published by the National Endowment for the Arts in 1988, argued that the state of the arts in secondary schools was in distress.

The High School Class of 1992

By 1992, the Cold War had ended. In a poll conducted in the spring of 1992, Americans identified the economy, unemployment, poverty, and homelessness as the most pressing issues. By 1992, national unemployment had dropped to 7.5 percent. Perhaps reflecting a changing job market, between 1972 and 1980, the percentage of high school seniors who reported participating in college-bound academic programs declined. Twelve years later, participation returned to its previous level. ¹⁴

The Class of 1992 was the most racially and ethnically diverse. By 1992, the percentage of whites in the graduating class dropped to 73 percent, while the percentage of blacks remained steady at nearly 12 percent. Most notably, the percentage of Hispanics in the graduating class increased from 3.5 percent in 1972 to 10 percent two decades later. Asian graduates made up the remaining 4.5 percent. By 1992, the percentage of graduating seniors who indicated they planned to attend college immediately after graduation increased to 76 percent. In particular, substantially greater percentages of blacks and Hispanics reported intentions of continuing their education. Approximately 1.84 million members of the Class of 1982 went on to earn more than 10 college credits, and 916,000 earned a bachelor's degree.

Finally, in 1992, Secretary of Education Lamar Alexander announced the America 2000 Arts Education Partnership, in conjunction with the National Endowment for the Arts, signaling the importance of the arts. The Partnership's mission was to recommend ways to integrate the arts into the larger educational reform movement.

DIFFERENCES IN COURSE-TAKING IN THE ARTS BY COHORT

This section summarizes postsecondary course-taking in the arts among 12th graders in the high school classes of 1972, 1982, and 1992 who went on to garner more than 10 college credits within 8.5 years of high school graduation. It answers two key questions: 1) What proportion of students studied arts as undergraduates? and 2) How has this proportion changed over the past three decades?

Data are summarized for nine aggregate categories (Art History, Film Arts, Fine Arts, Graphics and Design, Literature/Letters, Music Performance, Music Other, Textiles and Clothing, and Theater and Dance), as well as for the discrete course categories associated with each aggregate. Course-taking associated with teacher training in arts education is summarized as well. In some cases, data are not available for discrete course categories, although the data were used by Adelman (2004) to construct aggregate participation rates. Appendix A provides a list of course categories for which data are unavailable.

Each table describes exposure to arts education for 1) adults who earned more than 10 postsecondary credits and 2) those who earned bachelor's degrees (the second group is a large subset of the first) within 8.5 years of their high school graduation. ¹⁹ Arts exposure is measured by the percentage of students earning any credits in an aggregate category and in discrete course categories. ²⁰ This method does not count the number of credits earned. Rather, if students earned any credits – whether four credits or one-fourth of a credit – they are counted among those "earning credits." Thus, tables do not reveal the intensity or depth of study. ²¹

Each table also indicates if significant changes took place across cohorts. Only the direction of changes is noted in tables 1 through 9. Detailed information on statistically significant changes over time is available in Appendix A. Data for tables 1 through 9 come from tables 3.1 and 3.4 in *The Empirical Curriculum*.

Course-Taking in Art History

Table 1: Percent Earning College Credits in Art History

Course		U	> 10 credi	Those with a bachelor's degr In the high school class of:						
	1972	1982	1992	*	1972	1982	1992	*		
Aggregate: Art History	n.a.	14.5	19.0	_						
Art History	15.5	13.4	11.5	•	22.6	21.2	16.6	•		
Art Appreciation	n.a.	n.a.	6.6		n.a.	n.a.	7.1			
History of Architecture	0.9	1.6	1.6	_	1.5	2.4	2.6	•		
Non-Western Art	0.7	0.5	1.2	_	1.1	0.9	1.9	_		
^Classical/Ancient Art	n.a.	n.a.	0.7		n.a.	n.a.	1.5			

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, ▮ No change; n.a. indicates that the estimate is not available. ^ Course category not used to compute the aggregate participation rate but included in table because many would consider it associated with the study of art history.

Table 1 summarizes course-taking in the aggregate category of Art History. Nineteen percent of the Class of 1992 earned credits in this area, an increase over the Class of 1982 (14.5 percent). Examining discrete course categories, there was a slight decline in the percent earning credits in traditional courses dealing with art history. The reason for this decline for the Class of 1992 is the appearance of a new category, Art Appreciation, which was previously included under Art History. Over time, participation increased in the categories of History of Architecture and Non-Western Art.

Course-taking patterns and changes over time were similar between adults who earned more than 10 credits ("some college") and those who attained a bachelor's degree. For both groups, Art History was the most popular course category, followed by Art Appreciation. It is not surprising that a greater percentage of bachelor's degree recipients took arts courses than all adults who earned more than 10 credits. This is because they represent the subset of students who stay in school longer and take more courses. They may also have been more inclined to take elective arts courses or to enroll in programs that require arts courses than their non-degree peers.

Course-Taking in Film Arts

Table 2: Percent Earning College Credits in Film Arts

Course		earning >		Those with a bachelor's degree In the high school class of:					
Course	1972	1982	1992	*	1972	1982	1992	*	
Aggregate: Film Arts	n.a.	10.0	8.2	II	n.a.	n.a.	n.a.		
History of Film, Film Theory	1.8	3.3	4.2	_	3.2	6.2	5.8	•	
Film Arts: General	3.0	3.1	3.4	П	5.1	5.1	4.7	Ш	
Cinematography, Film-Making	1.0	0.8	1.2	II	1.7	1.6	1.3	II	
^Writing for the Media	1.3	1.3	2.0	_	2.1	2.3	2.8	II	

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s),

Table 2 summarizes course-taking in the aggregate category of Film Arts. Among high school graduates who achieved some college, 8 percent of those in the Class of 1992 earned credits in Film Arts, approximately the same as the Class of 1982 (10 percent). While the overall category of Film Arts remained steady, there is evidence of increased participation in courses on the History of Film/Film Theory from the Class of 1972 to the Class of 1992, both among graduates with some college and those who achieved a bachelor's degree.

The relative ranking of discrete course categories, and significant changes over time, were similar for adults who achieved some college, as well as those who earned a bachelor's degree.

[•] An up tick in the 80s, ▶ A dip in the 80s, II No change; n.a. indicates that the estimate is not available.

[^] Course category not used to compute the aggregate participation rate but included in table because many would consider it associated with the study of film arts.

Course-Taking in Fine Arts

Table 3: Percent Earning College Credits in Fine Arts

Course		earning >	> 10 cred	Those with a bachelor's degree In the high school class of:						
	1972	1982	1992	*	1972	1982	1992	*		
Aggregate: Fine Arts	n.a.	16.8	17.2	II	n.a.	n.a.	n.a.			
Drawing	6.5	5.6	6.9	_	7.3	6.9	7.8	Ш		
Fine Arts: General, Theory	8.9	6.3	5.3	•	13.0	9.0	7.3	•		
Photography	4.3	4.8	4.7	II	5.2	7.1	5.9	•		
Painting	2.8	2.0	2.4	•	3.7	2.8	3.3	II		
Ceramics	3.2	2.1	2.2	•	4.0	2.8	3.0	•		
Sculpture	1.8	1.0	1.6	•	2.4	1.8	2.3	II		
Color theory	0.6	1.4	1.0	_	0.7	1.9	1.0	_		
Printmaking	0.7	0.6	0.7	II	1.1	1.1	1.1	II		
Metal, Jewelry	0.7	0.4	0.6	•	1.1	0.5	1.0	•		
^ Visual & Performing Arts: General	2.4	2.7	6.3	_	3.3	4.2	8.5	•		

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ↓ An up tick in the 80s, ▶ A dip in the 80s, ℍ No change; n.a. indicates that the estimate is not available. ^ Course category not used to compute the aggregate participation rate but included in table because many would consider it associated with the study of fine arts.

In the Class of 1992, 17 percent earned some credits in Fine Arts, the same as the Class of 1982. Although many fine arts courses experienced changes over time, two discrete course categories stand out: Fine Arts: General Theory and Visual and Performing Arts: General. The percentage of students earning credits in the former declined, while the percentage earning credits in the latter increased. This was true both among students attaining "some college" and among those earning a bachelor's degree.

Course-Taking in Graphics and Design

Table 4: Percent Earning College Credits in Graphics/Design

	Those	e earning	> 10 cred	Those with a bachelor's degree						
Course	In the	high sch	ool class	of:	In the high school class of:					
	1972	1982	1992	*	1972	1982	1992	*		
Aggregate: Graphics and Design	n.a.	8.9	12.3	_	n.a.	n.a.	n.a.			
Design: General, 2-D, 3-D	4.9	4.3	4.5	II	6.4	5.8	5.4	II		
Theater Design, Stagecraft	Design, Stagecraft 1.6 1.2 2.7 ▲		2.6	1.5	3.7	•				
Visual Communications	0.7	1.4	1.9	•	1.1	2.2	2.7	_		
Graphic Design/Arts/Lettering	1.8	2.0	1.5	II	2.3	2.7	1.3	•		
Desktop Publishing	n.a.	n.a.	1.1		n.a.	n.a.	0.6			
Illustration Design	0.5	0.7	0.8	•	0.6	0.7	0.6	II		
Drafting: General, Technical	1.7	1.6	0.7	•	1.1	1.1	0.5	•		
Commercial Art	0.7	0.8	0.7	II	0.6	1.0	0.6	II		
Graphic & Printing Communication	0.8	1.3	0.6	- ◀	1.2	1.7	0.8	•		

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, Ⅱ No change; n.a. indicates that the estimate is not available.

Overall, course-taking in Graphics And Design became more popular over time. Whereas approximately 9 percent of students earned credits in Graphics and Design in the Class of 1982, 12 percent did so in the Class of 1992. The increase is significant. This may be due, in part, to greater participation in Theater Design, Stagecraft and in Visual Communications. The increase may also have resulted from the appearance of desktop publishing and changes in course categories not summarized here (see Appendix A).

Course-Taking in Literature/Letters

Table 5: Percent Earning College Credits in Literature/Letters

	Those	earning	> 10 cred	its	Those with a bachelor's degree						
Course	In the	high sch	ool class o	of:	In the	high sch	ool class o	of:			
	1972	1982	1992	*	1972	1982	1992	*			
Aggregate: Literature/Letters	n.a.	40.5	43.7	_	n.a.	n.a.	n.a.				
Literature: General, Introduction	21.0	15.5	19.9	•	31.6	24.4	28.1	•			
American Literature	14.1	10.2	13.2	•	23.6	18.6	20.9	•			
English Lit: All Periods	10.0	7.2	9.1	•	16.8	13.4	13.7	•			
Fiction: General, Introduction	7.4	7.3	5.4	•	12.4	12.1	7.9	•			
Comparative Lit: European	3.1	2.0	4.3	•	5.9	3.8	7.2	•			
Shakespeare	3.9	3.8	4.1	П	7.2	7.3	7.1	II			
Poetry: General, Introduction	2.5	2.1	2.4	П	3.9	3.9	3.9	II			
Criticism, Literary History	1.1	1.7	2.2	_	2.0	3.2	3.9	•			
Written English, Advanced Grammar	2.0	2.8	1.8	4	1.8	3.9	1.4	◀			
Drama: General, Introduction	2.6	1.7	1.6	•	4.3	3.0	2.5	•			
Folklore, Mythology	1.2	1.6	1.4	Ш	2.1	2.9	2.0	Ш			
Comparative Lit: Non-Western	0.7	0.4	1.0	_	1.1	0.6	1.7	•			
Literature and Film	0.6	1.0	0.8	•	1.0	1.5	1.4	II			
Science fiction, Fantasy	1.1	1.3	0.8	•	1.8	2.6	1.4	•			
Non-fiction Prose, Biography	0.7	1.0	0.5	•	1.1	1.7	0.7	•			
^English/Freshman Composition	64.6	67.5	79.4	_	74.8	80.5	85.2	•			
^Creative Writing	4.6	3.5	4.2	•	7.4	5.6	6.5	•			
^Classical Literature	3.4	3.0	3.8	II	6.3	5.5	5.7	II			
^Afro-American Literature	1.0	0.7	1.6	•	1.3	1.2	2.7	•			
^The Bible as Literature	1.0	2.4	0.9	4	1.5	3.9	1.4	•			

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, Ⅱ No change; n.a. indicates that the estimate is not available ^ Course category not used to compute the aggregate participation rate but included in table because many would consider it associated with the study of literature and letters.

The category of Literature/Letters captures a greater number of courses than other categories of arts education. This may result, in part, because literature courses are frequently required to attain an undergraduate degree. Not surprisingly, the category boasts a relatively high rate of participation.

Among students earning at least "some college," the percentage that earned literature credits increased between the Class of 1982 (41 percent) and the Class of 1992 (44 percent). Freshman Composition in particular, experienced substantial increases over time – both among students that attained more than 10 credits and among those who earned a bachelor's degree. However, this increase does not explain the increase in the Literature/Letters category because it was not used to compute the overall total. Rather,

rebounds in course categories such as Literature: General Introduction and American Literature may partially account for overall increase in participation between the Class of 1982 and the Class of 1992. In this, and other cases, the increase between 1982 and 1992 appears to be a rebound from a dip in the early 1980s.

Course-Taking in Music

Table 6: Percent Earning College Credits in Music

	Those	e earning	> 10 cred	Those with a bachelor's degree							
Course	In the	high sch	ool class	of:	In the high school class of:						
	1972	1982	1992	*	1972	1982	1992	*			
Aggregate: Music Performance	11.7	8.8	8.9	~	15.6	13.1	11.8	•			
Aggregate: Music, Other	n.a.	20.8	28.1	•	n.a.	n.a.	n.a.				
Music History and Apprec: General	10.9	11.1	12.7	_	16.2	17.6	17.3	Ш			
Music: Ear-Training, Solfeggio	10.0	6.3	10.4	•	15.2	10.0	14.7	•			
Music History: Jazz	1.1	1.9	2.7	_	1.8	2.8	3.7	•			
Music Theory	3.9	2.2	2.1	•	5.6	3.6	2.8	•			
Music History: Pop, Rock, Folk	0.5	1.4	1.7	_	0.7	2.1	2.5	•			
Music Literature	2.1	1.1	1.5	•	3.6	2.0	2.1	•			
Music History: Classical	1.3	1.2	0.9	II	2.4	2.2	1.6	II			
Music Hist: Opera & Musical Theater	0.2	0.5	0.8	_	0.5	0.9	1.3	•			

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, Ⅱ No change; n.a. indicates that the estimate is not available.

There are two categories of postsecondary music instruction: performance and nonperformance. Data suggest that the percentage of adults earning college credits in the area of Music Performance dropped between the classes of 1972 and 1982, and then stabilized. By contrast, overall course-taking in nonperformance classes increased between the Class of 1982 (21 percent) and the Class of 1992 (28 percent), at least among students earning more than 10 college credits.

Looking at individual course-taking patterns reveals a mixed bag of increases and declines in the percentage of students earning course credits over time, in both categories of educational attainment. Overall gains may be partly attributable to increased participation in Music History and Appreciation: General, and rebounding participation in Music: Ear Training, Solfeggio. Over time, there were also steady increases in the participation rates in Music History: Jazz, Music History: Pop, Rock, Folk, and Music History: Opera and Musical Theater.

Course-Taking in Teacher Training - Arts Education

Table 7: Percent Earning College Credits in Teacher Training in Arts Education

Course		e earning		Those with a bachelor's degree In the high school class of:					
	1972	1982	1992	*	1972	1982	1992	*	
Aggregate: Teacher Training, Arts	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.		
TE: Music Education	4.3	1.8	2.9	•	8.1	3.3	4.7	•	
TE: Art Education	4.3	1.9	2.8	•	7.9	3.7	5.0	•	
TE: Drama and Dance Education	0.7	0.7	0.2	•	1.3	1.1	0.5	•	
TE: Language Arts	5.5	3.6	6.1	•	9.8	5.9	10.0	•	

Notes: * Statistically significant change over time. Details in Appendix A ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, Ⅱ No change; n.a. indicates that the estimate is not available.

Teaching the arts is an important aspect of the arts education landscape. Data suggest that the percentage of adults taking arts teaching coursework declined over time. The most notable changes occurred among graduates who subsequently earned a bachelor's degree after high school. The percentage who earned credits in teaching arts education and music education dropped from approximately 8 percent in the Class of 1972 to approximately 5 percent in the Class of 1992. With the exception of drama and dance instruction, between 1982 and 1992, there appears to have been a rebound in the popularity of teaching the arts. This is consistent with an overall trend in teacher training. Between 1972 and 1982, the proportion of bachelor's degree recipients who majored in education declined, but rebounded slightly in 1992. 22

Course-Taking in Textile, and Clothing

Table 8: Percent Earning College Credits in Textiles and Clothing

Course		earning >		Those with a bachelor's deg In the high school class of						
	1972	1982	1992	*	1972	1982	1992	*		
Aggregate: Textiles and Clothing	n.a.	n.a.	1.3		n.a.	n.a.	n.a.			
Fashion Design	0.8	1.1	0.5	•	0.8	1.2	0.7	II		
Textile Science	0.7	0.7	0.5	Ш	1.0	0.7	0.5	II		
Textiles and Clothing	1.3	1.1	0.4	•	1.7	1.6	0.6	•		

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, Ⅱ No change; n.a. indicates that the estimate is not available.

Few students earn credits in Textiles and Clothing. The data indicate that the popularity of related courses may have declined somewhat between the 1972 and 1992 cohorts. By the time the latter cohort completed their higher education, approximately 1 percent had participated in a fashion, textile, or clothing course. The percentage of students taking textile and clothing courses does not appear to vary substantially between those with "some college" credits and adults who earn a bachelor's degree.

Course-Taking in Theater and Dance

Table 9: Percent Earning College Credits in Theater and Dance

Course		earning > high scho		Those with a bachelor's degr In the high school class of:					
	1972	1982	1992	*	1972	1982	1992	*	
Aggregate: Theater and Dance	n.a.	10.2	18.7	_	n.a.	n.a.	n.a.		
History of Theater, Drama, Criticism	5.1	6.4	11.8	_	7.8	9.8	17.6	•	
Dramatic Arts, Acting, Directing	6.0	5.3	6.0	II	8.9	8.3	9.0	II	
Dance	7.4	2.7	4.0	•	11.2	3.7	5.8	•	
^ Voice/Diction	1.7	1.5	3.0	_	2.8	2.3	4.5	•	

Notes: * Statistically significant change over time. Details in Appendix A. ▲ Increase(s), ▼ Decrease(s), ◀ An up tick in the 80s, ▶ A dip in the 80s, ▮ No change; n.a. indicates that the estimate is not available.

Theater and Dance increased in popularity over time. Approximately 19 percent of college-going members of the Class of 1992 earned any theater and dance credits, as compared to nearly 10 percent of the 1982 cohort. While about 5 percent of the Class of 1972 earned credits in drama history, more than double that amount did so in the Class of 1992. A similar increase occurred among students who earned a bachelor's degree. The steady increase in popularity of History Of Theater, Drama, Criticism appears to be the driving force behind the overall increase in the percentage of students earning credits in theater and dance between the classes of 1982 and 1992. The increase was dramatic for adults who earned a bachelor's degree.

Dance courses appear to have declined between 1972 and 1982, but rebounded slightly by the time the Class of 1992 went to college. However, physical education courses in dance had been coded as "dance" for the Class of 1972, instead of physical education activities. The coding rules changed for the classes of 1982 and 1992, making it difficult to determine if a decline occurred.

Participation rates for Voice/Diction were not used to compute aggregate-level participation in Theater And Dance. However, the discrete course category is listed here because some drama students may have found such a course to be a useful addition to their studies. Course-taking in this area increased over time.

[^] Course category not used to compute the aggregate participation rate but included in table because many would consider it associated with the study of theater or dance.

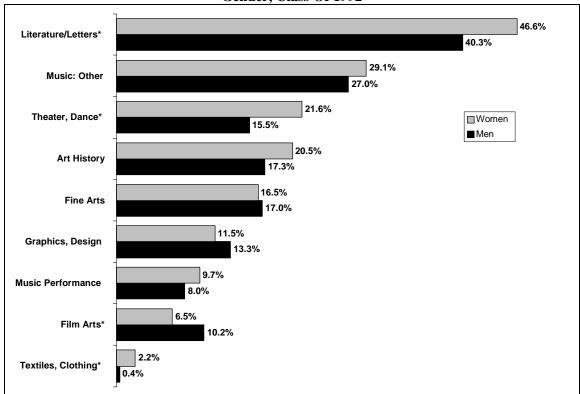


Figure 1: Percent Earning College Credits in the Arts, by Aggregate Category and Gender, Class Of 1992

Source: Adelman, C. (2004). *The Empirical Curriculum: Changes in Postsecondary Course-Taking,* 1972-2000. Washington, DC: U.S. Department of Education, Table 3.5, pp. 87, 88. Note: * indicates statistically significant difference.

Thus far, we have examined differences in course-taking among cohorts. What about other types of differences? Do course-taking patterns differ between men and women? Data from the Survey of Public Participation in the Arts (SPPA) indicate that women are more likely to report exposure to arts education than men. Looking at data from the Class of 1992, it appears that women were more engaged in arts education than men. In four out of the nine aggregate course categories, there were statistically significant differences between men and women. In three categories – Literature, Theater/Dance, and Textiles – a greater percentage of women took courses than men. In one course – Film Arts – men enrolled more frequently than women.

Textiles and clothing studies are unique. In the high school Class of 1992, the female field concentration ratio was 5.5 to 1. In other words, there were nearly six women who earned credits in this field for every man who did so. According to Adelman (2004), "[a] field may be said to exhibit gender segmentation when the ratio falls below 0.50 (indicating male dominance) or rises above 1.50 (indicating female dominance)." Textiles and Clothing is the only category with a concentration ratio that fits this description.

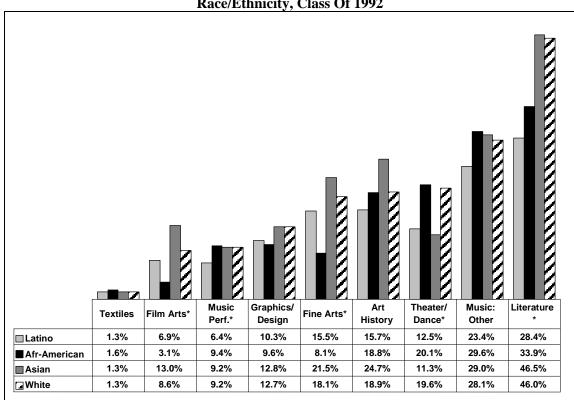


Figure 2: Percent Earning College Credits in the Arts, by Aggregate Category and Race/Ethnicity, Class Of 1992

Source: Adelman, C. (2004). *The Empirical Curriculum: Changes in Postsecondary Course-Taking*, 1972-2000. Washington, DC: U.S. Department of Education, Table 3.6, pp. 91, 92.

Note: * indicates statistically significant difference.

Do course-taking patterns differ among races/ethnicities? Data from the Survey of Public Participation in the Arts (SPPA) indicate that nonwhites are less likely to report exposure to arts education than whites.²⁴ However, while data from the Class of 1992 suggest that participation rates vary among racial and ethnic groups, few differences are statistically significant. Significant differences are:

- <u>Film Arts</u>: A smaller percentage of African Americans earned credits than any other racial/ethnic group.
- <u>Music Performance</u>: A greater percentage of whites earned credits in music performance than did their Latino counterparts.
- <u>Fine Arts</u>: A smaller percentage of African Americans earned credits than any other racial/ethnic group.
- <u>Theater/Dance</u>: Fewer Latino and Asian students earned credits as compared to whites and African Americans.
- <u>Literature</u>: A greater percentage of whites and Asians earned credits than did African Americans or Latinos.

DIFFERENCES IN EARNED DEGREES IN THE ARTS OVER TIME

Thus far, we have examined course-taking for all students. Specific attention has not been paid to individuals with a particular interest in the arts, such as arts majors. Has the percentage of arts majors been increasing or decreasing? Data in *The Empirical Curriculum* suggest that there have been few changes across the three cohorts: 4.8 percent of the Class of 1972 earning bachelor's degrees were arts majors, compared to 4.6 percent in the Class of 1982, and 5.5 percent in the Class of 1992. Although these changes are not statistically significant, the decline in popularity of arts majors followed by a recent increase is consistent with patterns in course-taking, and with other data (Figure 3).

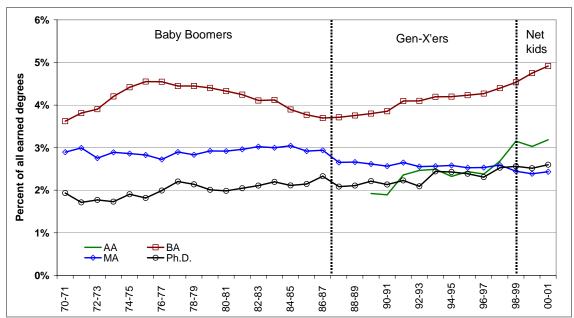


Figure 3: Earned Degrees in the Visual and Performing Arts, 1970-2001

Source: U. S. Department of Education. National Center for Education Statistics. *Digest of Education Statistics*. Washington: U. S. Government Printing Office, 2002, Tables 246, 250, and 297.

Figure 3 suggests that arts degrees grew in popularity in the 1970s, when Baby Boomers were attending college. This is particularly true among students striving for bachelor's degrees. When Gen-X'ers headed to college, the popularity of arts degrees had declined. This may be due, in part, to budget cuts and an emphasis on basic academic subjects in primary and secondary education during the 1980s. More recently, it appears that arts degrees have experienced newfound popularity. Although the percentage of college graduates receiving master's degrees in the arts has not rebounded since the mid-1980s, the percentage of associate's degrees and bachelor's degrees in the arts has increased since 1990.

HIGH ENROLLMENT ARTS COURSES

Are arts classes among the most enrolled or the least enrolled course categories? Table 10 presents a rank ordering of the top arts courses by enrollment share for those in the Class of 1992 who earned more than 10 postsecondary credits. It shows that of the course categories that enrolled the highest percentage of students, 14 were arts categories. Introductory courses were tops in terms of percent enrollment. However, it is the average number of credits earned that indicates the true weight of student participation. For example, approximately 12 percent of the Class of 1992 earned an average of 3.41 credits in history of theater. Compare these data to Art History, with a comparable enrollment share of 11.5 percent, but with average earned credits of 4.47. Thus, Art History has more weight of student curricular participation because it earned higher average credits at a comparable enrollment share.

Only two courses in Table 10 meet the criteria for a "high enrollment course" (one out of five undergraduates): Freshman Composition and Introduction to Literature. Neither are specialty arts courses. Rather, the specialty courses in Table 10 are "medium enrollment courses," which enroll approximately one out of eight undergraduates. Low enrollment courses (one out of every 20 students or less) include all of the other arts courses summarized in this document.

Interesting, of the 20 undergraduate courses with the highest proportions of "A" grades taken by the Class of 1992, six were arts courses. Music Performance ranked first, with 64.2 percent of "A" grades or equivalent – as compared to an average of 28.4 percent for all course categories. One arts course appears among the 20 with the highest proportions of failures. Approximately 8.1 percent of the Class of 1992 who took introduction to fine arts courses received failures or other penalty grades. ²⁵

Table 10: High Enrollment Arts Courses, Class of 1992

Top Course Categories, Class of 1992	Mean Credits	s.e.		ent of st			k amon se categ	<u> </u>				
	1992		1972	1982	1992	1972	1982	1992				
1. English/Freshman Composition [#]	5.04	0.44	64.6	67.5	79.4	1	1	1				
2. Literature: Introduction to [#]	3.40	0.39	21.0	15.5	19.9	12	23	16				
3. American Literature	4.28	0.97	14.1	10.2	13.2	21	35	35				
4. Music Appreciation [#]	3.10	0.50	10.9	11.1	12.7	34	34	38				
5. History of Theater, Drama, Criticism	3.41	0.89	5.1	6.4	11.8	89	66	39				
6. Art History	4.47	1.40	15.5	13.4	11.5	18	29	40				
7. Basic Musicianship/Solfeggio [#]	3.43	1.53	10.0	6.3	10.4	42	68	44				
8. English Lit: All Periods	4.87	1.60	10.0	7.2	9.1	41	58	52				
9. Music Performance [#]	7.36	6.75	11.7	8.8	8.9	31	42	53				
10. Drawing	5.00	2.43	6.5	5.6	6.9	72	83	74				
11. Art Appreciation	2.78	0.67	n.a.	n.a.	6.6	n.a.	n.a.	89				
12. Visual and Perform Art Surveys	3.07	0.55	2.4	2.7	6.3	184	171	90				
13. Theater: Acting, Directing	6.25	6.69	6.0	5.3	6.0	77	84	93				
14. Introduction to Fiction	3.27	1.14	7.4	7.3	5.4	66	54	98				
Total number of arts course categories in th	Fotal number of arts course categories in the top 100 highest enrollment categories 15 14 14											

Source: Adelman, C. (2004). *The Empirical Curriculum: Changes in Postsecondary Course-Taking,* 1972-2000. Washington, DC: U.S. Department of Education, Tables 3.1 and 3.2.

Conclusion

On balance, it appears that the percentage of students earning *any* credits in aggregate arts categories may have increased slightly between the classes of 1982 and 1992, possibly rebounding from a dip between the 1970s and 1980s. Four of nine aggregate arts categories created by Adelman (2004) experienced statistically significant increases between the classes of 1982 and 1992; the remaining five experienced no change during that time. A rebounding interest in and exposure to study of the arts is also evident in the rising percentage of arts degrees conferred. However, overall changes appear to be relatively small. There also appear to be some differences in course participation by gender and race/ethnicity. In a handful of instances, women are more likely to have earned any credits than men, and nonwhites are less likely to have earned credits than their white counterparts. This finding is consistent with adults' self-reported exposure to the arts, which indicates lesser exposure among men and nonwhites.

The differences in course-taking patterns, and changes over time, can be attributed to a variety of sources. While it is not clear from the data which source makes the largest contribution to change, it is useful to contemplate why change might be occurring. First, there are "demand-side" explanations: More recent high school graduates may be more/less interested in certain arts fields than their predecessors due to changes in the arts climate nationwide, changes in the profitability of certain professional fields, or changes in exposure to the arts during youth. Finally, the utility of various fields of study may be viewed differently by men and women, and among racial/ethnic groups.

[#] These courses are among those often taken in the first calendar year of postsecondary education.

There are also "supply-side" explanations for differing participation rates. First, colleges may offer a wider breadth of art classes today than they did previously. They may also encourage course-taking in certain areas more/less today than they did in the past. Many institutions offering undergraduate degrees require one or more arts courses in order to graduate. Today, over 97 percent of collegiate departments or schools with accredited degree programs in arts regularly offer credit-bearing courses for students majoring in non-arts disciplines. Some departments are funded based on the number of student credits hours they generate. Thus, there is an incentive for arts departments to offer and promote the study of the arts for non-arts majors. Finally, institutions may award more or less credits per arts course today than in the past, effectively signaling the value of such study to students.

These different demand and supply-side influences may be competing or complimentary. Further research to discover what public policies, cultural shifts, and/or institutional adjustments have contributed to changes over time, and to what degree, would enhance understanding of course-taking in the arts. The good news is that data suggest that there may have been gains in exposure to arts education since the 1980s, and that the arts appear to be an important part of the undergraduate experience.

Appendix A: Statistically significant changes in course-taking over time

Table 11: Percentage of on-time high school graduates earning undergraduate course credits within 8.5 years of high school graduation

				•	0 credit		W/ a bachelor's degre				
Code	Co	urse Category	High	school	class o		High		class c	of:	
			'72	'82	'92	*	'72	'82	'92	*	
AGGREGAT	E: AR	T HISTORY		14.5	19.0	2					
500702-N	1.	Art Appreciation			6.6				7.1		
500703	2.	Art History	15.5	13.4	11.5	7	22.6	21.2	16.6	6	
500704-N^	3.	Ancient Art, Art of Classical Greece and Rome, Ancient Egyptian Art			0.7				1.5		
500730	4.	Non-Western Art: Hist & Appreciation, Oriental Art, Art of Sub-Saharan Africa	0.7	0.5	1.2	6	1.1	0.9	1.9	2	
500740	5.	History of Architecture, Appreciation of Architecture, Architectural Criticism	0.9	1.6	1.6	5	1.5	2.4	2.6	5	
AGGREGAT	E: AR	TS EDUCATION (Created by author)									
131302	1.	Art Education, School Arts & Crafts	4.3	1.9	2.8	7	7.9	3.7	5.0	7	
131312	2.	Music Education, Music Pedagogy, Music in Schools, Music Fundamentals for Elementary Teachers, Keyboard Methods & Materials, Orff Method, Suzuki Method	4.3	1.8	2.9	7	8.1	3.3	4.7	7	
131322	3.	Drama Education, Dance Education, Creative Movement for Children, Dance Activities Elementary, Play Production Secondary School, Teaching Theater	0.7	0.7	0.2	6	1.3	1.1	0.5	6	
131323	4.	Language Arts, Children's Literature, Literature for Adolescents, Reading and Language Arts, Storytelling, Teaching Handwriting/Spelling/Language Skills	5.5	3.6	6.1	4	9.8	5.9	10.0	4	
AGGREGAT	E: FIL	M ARTS		10.0	8.2	0					
500601	1.	Film Arts: General, Language of Film, Film and Society	3.0	3.1	3.4	0	5.1	5.1	4.7	0	
500602	2.	Cinematography/Film-Making/Production, Film Animation, Film Techniques, Sight and Sound, Film Editing, Cartoon Workshop, Narrative Workshop, AFI Seminar	1.0	0.8	1.2	0	1.7	1.6	1.3	0	
500607	3.	History of Film, Theory, Criticism, Film Genres, Hollywood History, Film Aesthetics, International Cinema, Contemporary Cinema, Film Styles, Film Noir	1.8	3.3	4.2	6	3.2	6.2	5.8	5	
090601^	4.	Writing (exclusive of journalism) for the Media, Script Writing, Screenwriting, Telecommunications Writing, Radio/TV/Film Writing	1.3	1.3	2.0	6	2.1	2.3	2.8	0	
500606	5.	Video	Estir	nates n	ot availa	able	but inclu	ded in a	aggregat	ie	
AGGREGAT	E: FIN	IE ARTS		16.8	17.2	0					
500101^	1.										
		Art/Music, Drama/Film	2.4	2.7	6.3	6	3.3	4.2	8.5	6	
500202	2.	Ceramics, Pottery	3.2	2.1	2.2	5	4.0	2.8	3.0	1	
500206	3.	Metal, Jewelry	0.7	0.4	0.6	1	1.1	0.5	1.0	4	
500605	4.	Photography, Light/Colors, Black & White Photography, Portrait Photogr., Still Photography, History of	4.3	4.8	4.7	0	5.2	7.1	5.9	1	
500701	5.	Fine Arts: General, Theory, Principles, Foundations/ Fundamentals of Art, Basic Studio, Studio Arts,	8.9	6.3	5.3	5	13.0	9.0	7.3	5	
500705	6.	Drawing, Drawing and Painting, Drawing and	6.5	5.6	6.9	2	7.3	6.9	7.8	0	
500708	7.	Painting, Watercolor, Oil	2.8	2.0	2.4	1	3.7	2.8	3.3	0	
500709	8.	Sculpture	1.8	1.0	1.6	4	2.4	1.8	2.3	0	
500710	9.	Printmaking, Intaglio	0.7	0.6	0.7	0	1.1	1.1	1.1	0	
500711	10.	,, ,,, ,,, ,,, ,,, ,,, ,,, ,,, ,,, ,,, ,,, ,,, ,,	0.6	1.4	1.0	5	0.7	1.9	1.0	1	
500712-N	11.	Rendering Techniques	Estir	nates n	ot availa	able	but inclu	ded in a	aggregat	te	

				ing > 1			_					
Code	Cou	irse Category	High	school			High		l class o	of:		
			'72	'82	'92	*	'72	'82	'92	*		
500204	12.	Fibers/Textiles/Weaving, Loom	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	te		
500205	13.	Glass, Glassblowing	Estir	nates n	ot availa	but included in aggregate						
AGGREGAT	E: GR	APHICS AND DESIGN		8.9	12.3	2						
480101	1.	Drafting: General, Technical Drafting/Drawing	1.7	1.6	0.7	3	1.1	1.1	0.5	6		
480201	2.	Graphic & Printing Communications: General, Intro to Printing/Print Media, Communication Design, Graphic Reproduction Theory, Publication Production	0.8	1.3	0.6	4	1.2	1.7	0.8	2		
480203	3.	Commercial Art, Production Art, Air Brush, Paste-Ups, Media Graphics,	0.7	8.0	0.7	0	0.6	1.0	0.6	0		
500102	4.	Visual Communications, Visual Experience, Visual Analysis/Thinking/Research, Visual Form	0.7	1.4	1.9	5	1.1	2.2	2.7	5		
500401	5.	Design: General, 2D, 3D, Design and Composition, Design Media	4.9	4.3	4.5	0	6.4	5.8	5.4	0		
500402	6.	Graphic Design/Arts/Lettering, Calligraphy, Marker Indication, Keylining	1.8	2.0	1.5	0	2.3	2.7	1.3	6		
500403	7.	Illustration Design, Illustration, Technical/Product Illustration	0.5	0.7	8.0	3	0.6	0.7	0.6	0		
500405	8.	Theater Design, Stagecraft (Includes Costuming, Make-up, Lighting, Set Design, & other related titles)	1.6	1.2	2.7	7	2.6	1.5	3.7	4		
480102	9.	Architectural Drafting/Detailing/Drawing/Rendering/Delineation/Graphics	1.1	1.3	8.0	2	0.8	1.3	0.5	2		
480202-N	10.	Electronic/Desk-Top Publishing			1.1				0.6			
500406-N	11.	Electronic Design, Digital Imaging/Illustration, Computer-Based Design			1.9				1.8			
480103	12.	Civil/Structural Drafting, Construction Drafting/Graphics	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480104	13.	Electrical/Electronics Drafting	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480105	14.	Mechanical Drafting, Aircraft Drawing, Industrial Drafting	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480204	15.	Commercial Photography, Advertising Photography, Industrial Photography	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480205	16.	Typesetting, Composition, Typography	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480206	17.	Lithography, Platemaking	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480207	18.	Photographic Lab & Darkroom	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480208	19.	Printing Technology, Printing Press Operations, Bookbinding	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
480209	20.	Silk Screen Making & Printing, Serigraphy	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
500404	21.	Industrial Design, Product Design, Packaging	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
500407-N	22.	Interior Design	Estir	nates n	ot availa	able l	out inclu	ded in a	aggrega	ite		
AGGREGAT	E: LIT	ERATURE/LETTERS		40.5	43.7	2						
230101	1.	Literature: General/Introduction to, World Literature, Literary Masterpieces	21.0	15.5	19.9	4	31.6	24.4	28.1	7		
230102	2.	Poetry: General/Introduction to, Epic, Lyric, Narrative Poetry	2.5	2.1	2.4	0	3.9	3.9	3.9	0		
230103	3.	Fiction: General/Introduction to, Short Story, Short Fiction, Novela	7.4	7.3	5.4	6	12.4	12.1	7.9	6		
230104	4.	Drama: General/Introduction to	2.6	1.7	1.6	5	4.3	3.0	2.5	3		
230105	5.	Non-Fiction Prose, Biography, Essays	0.7	1.0	0.5	2	1.1	1.7	0.7	2		
230201^	6.	Classical Literature, Greek/Roman Literature (Drama, Poetry) in Translation, Specific Authors such as Aeschylus, Virgil, Plautus; Specific Works such as The Odyssey, the Orestia, Classical Mythology	3.4	3.0	3.8	0	6.3	5.5	5.7	0		
230202^	7.	The Bible as Literature, Poetry of the Old Testament, Life and Language of the Bible, Bible History and Literature, Literature of the Old/New Testament	1.0	2.4	0.9	4	1.5	3.9	1.4	4		
220204	8.	Comparative Literature: European Literature in Translation, Continental Literature	3.1	2.0	4.3	7	5.9	3.8	7.2	4		
230301	٥.											

Code				ning > 1			W/ a bachelor's degree										
	Cou	irse Category	High '72	school '82	class o	of: *	High '72	school '82	class o	of: *							
230401^	10.	Freshman Composition, Freshman English, College English, Composition & Literature, Composition & Rhetoric, Reading & Composition, Exposition	64.6	67.5	79.4	7	74.8	80.5	85.2	7							
230402	11.	Spoken/Written English; Advanced Grammar, Grammar and Composition, Grammar and Reading, Grammar and Usage, Word Origins, Vocabulary Building	2.0	2.8	1.8	4	1.8	3.9	1.4	4							
230501^	12.	Creative Writing, Writing Poetry/Fiction/Drama	4.6	3.5	4.2	1	7.4	5.6	6.5	1							
230701	13.	American Literature, American Fiction/Drama/Poetry/Humor/Short Story, American Renaissance, American Realism/Romanticism, Transcendentalism, [individual or groups of authors]	14.1	10.2	13.2	4	23.6	18.6	20.9	6							
230702^	14.	Afro-American Literature/Fiction/Drama/Writers, Harlem Renaissance	1.0	0.7	1.6	6	1.3	1.2	2.7	6							
230801	15.		10.0	7.2	9.1	4	16.8	13.4	13.7	5							
230802	16.	Shakespeare	3.9	3.8	4.1	0	7.2	7.3	7.1	0							
231301	17.	Criticism, Literary History, Theory, Research Methods, Bibliography	1.1	1.7	2.2	5	2.0	3.2	3.9	5							
233001	18.	Speed Reading		1.0	2.6	2		1.3	1.6	0							
239002	19.	Science Fiction, Fantasy	1.1	1.3	0.8	2	1.8	2.6	1.4	2							
239003	20.	Folklore, Mythology	1.2	1.6	1.4	0	2.1	2.9	2.0	0							
239004	21.	Literature & Film/Film as Literature	0.6	1.0	0.8	1	1.0	1.5	1.4	0							
230403	22.	Writing Proficiency, English Proficiency Exams, Writing Competency, Placement Exam, RTP Essay, RTP Reading, English Comp Exam	Estimates not available but included in aggregate														
239001	23.	Other Determinable Literature Topics (Some common examples include Comedy, Satire, Tragedy, Heroism, Science & Literature, Psychology & Literature)	Estimates not available but included in aggregate														
239999	24.	Letters: Indeterminable	Estimates not available but included in aggregat						te								
AGGREGAT	ΓE: MU	SIC PERFORMANCE		8.8	8.9	0											
500903	1.	Music Perf., Applied Music, Music Lessons, Band, Chorus, Orchestra, Ensemble, Chamber Players, Conducting, Class Piano, Class Woodwind, Class Strings/Percussion/Brass	11.7	8.8	8.9	5	15.6	13.1	11.8	5							
AGGREGATE: MUSIC: OTHER			20.8	28.1	2												
500901	1.	Music: Ear Training, Dictation, Solfeggio, Sight-Singing, Basic Musicianship, Music Fundamentals, Introduction to Music	10.0	6.3	10.4	4	15.2	10.0	14.7	4							
500902	2.	Music History & Appreciation: General, Art of Listening, Concert Music/Hour, Heritage of Music, Humanities: Music, Masterpieces	10.9	11.1	12.7	1	16.2	17.6	17.3	0							
500904	3.	Music Theory, Form and Analysis, Harmony, Counterpoint, Orchestration, Arranging, Composing	3.9	2.2	2.1	5	5.6	3.6	2.8	5							
500905	4.	Music Literature, Brass/Woodwind/Keyboard/Strings Literature	2.1	1.1	1.5	5	3.6	2.0	2.1	5							
500906	5.	Music History: Classical, Baroque, Romantic, Chamber, Symphony	1.3	1.2	0.9	0	2.4	2.2	1.6	0							
500907	6.	Music History: Opera & Musical Theater, Musical Comedy, Broadway	0.2	0.5	0.8	5	0.5	0.9	1.3	3							
	7.	Music History: Jazz	1.1	1.9	2.7	7	1.8	2.8	3.7	5							
500908	8.	Music History: Pop, Rock, Folk	0.5	1.4	1.7	5	0.7	2.1	2.5	5							
500908 500909	٥.		Estimates not available but included in aggregate														
	9.	American Music	EStil	nates n	ot availe	2010	out intolu	aca iii c	aggi ogu	Estimates not available but included in aggregate							
500909	9.	American Music Non-Western Music							00 0	te							
500909 500911-N	9.	Non-Western Music	Esti	mates n	ot availa	able		ded in a	aggrega								

Code	Co	rse Category	Earning > 10 credits High school class of:				W/ a bachelor's degree High school class of:				
			'72	'82	'92	*	'72	'82	'92	*	
AGGREGATE: TEXTILES AND CLOTHING					1.3						
190901	1.	Textiles & Clothing: General, Culture/Society and Dress, Dress and Human Behavior	1.3	1.1	0.4	6	1.7	1.6	0.6	6	
190902	2.	Fashion Design/Analysis/Planning/Theories/History	8.0	1.1	0.5	2	8.0	1.2	0.7	0	
190904	3.	Textile Science, Textile Fibers, Textile Testing/Evaluation, Fabric Studies	0.7	0.7	0.5	0	1.0	0.7	0.5	0	
AGGREGATE: THEATER AND DANCE			10.2	18.7	2						
500301	1.	Dance, Choreography, Labanotation	7.4	2.7	4.0	7	11.2	3.7	5.8	7	
500501	2.	Dramatic Arts, Acting, Directing	6.0	5.3	6.0	0	8.9	8.3	9.0	0	
500502	3.	History of Theater, Drama Criticism, Drama Appreciation	5.1	6.4	11.8	7	7.8	9.8	17.6	7	
500503^	4.	Voice, Diction, Oral Interpretation	1.7	1.5	3.0	6	2.8	2.3	4.5	6	
500302	5.	History of Dance	Estimates not available but included in aggregate								

Sources: Adelman, C. (2004). "The Empirical Curriculum: Changes in Postsecondary Course-Taking, 1972-2000." Washington, DC: U.S. Department of Education, tables 3.1 and 3.4; Adelman, C. (2004). "Taxonomy of Postsecondary Courses Based on the National Transcript Samples, 2003." Washington, DC: U.S. Department of Education.

- 0 None of the possible comparisons is statistically significant
- 1 Class of 1972 vs. Class of 1982 comparison is significant
- 2 Class of 1982 vs. Class of 1992 comparison is significant
- 3 Class of 1972 vs. Class of 1992 comparison is significant
- 4 Two comparisons are significant: 1972 vs. 1982, and 1982 vs. 1992
- 5 Two comparisons are significant: 1972 vs. 1982, and 1972 vs. 1992
- 6 Two comparisons are significant: 1982 vs. 1992, and 1972 vs. 1992
- 7 All three possible pair comparisons are significant

Notes on Codes: "N" indicates the category was created based on the volume of course-taking in the NELS:88/2000

^{*} Notes on statistically significant changes over time:

[&]quot;^" indicates a related course category not included in the aggregate computation

Endnotes

- ¹ Mizell, L. 2004. "Arts Education in the U.S., 1982-2002." Monograph prepared for the National Endowment for the Arts, 2004.
- ² Mizell, L. *Op cit.*, p. viii.
- ³ Adelman, C. 2004. *The Empirical Curriculum: Changes in Postsecondary Course-Taking*, 1972-2000. Washington, DC: U.S. Department of Education, available at www.ed.gov/rschstat/research/pubs/empircurr/empircurric.pdf.
- ⁴ Adelman, C. 2004. *Principal Indicators of Student Academic Histories in Postsecondary Education*, 1972-2000. Washington, DC: U.S. Department of Education, Institute of Education Sciences, available at www.ed.gov/rschstat/research/pubs/prinindicat/prinindicat.pdf.
- ⁵ "Employment status of the civilian noninstitutional population, 1940 to date." Washington, DC: U.S. Bureau of Labor Statistics. Online at: ftp://ftp.bls.gov/pub/special.requests/lf/aat1.txt. Accessed June 2004.
 ⁶ Green, P., Dugoni, B. and Ingels, S. "National Education Longitudinal Study of 1988: Trends Among High School Seniors: 1972-1992." Washington, DC: National Center For Education Statistics, March 1995, p. 33
- ⁷ The Empirical Curriculum, p. 39
- ⁸ Green et. al., Op cit., p. 6
- ⁹ Baby Boomers are those born between (and including) 1946 and 1964.
- ¹⁰ The Empirical Curriculum, p. 39
- ¹¹ U.S. Bureau of Labor Statistics. *Op cit*.
- ¹² Green et. al., *Op cit.*, p. 6
- ¹³ U.S. Bureau of Labor Statistics, *Op cit*.
- ¹⁴ Green et. al., *Op cit.*, p. 15-16
- ¹⁵ Green et. al., *Op cit.*, p. 6
- ¹⁶ Green et. al., *Op cit.*, p. 37
- ¹⁷ The Empirical Curriculum, p. 39
- ¹⁸ This occurs where 1) course enrollments were very small, 2) a course was designated as "Other," or 3) the definition of the course content changed substantially over time, making comparisons inappropriate.
- "The period of 8.5 years was determined by the shortest of the cohort studies, the NELS:88/2000, for which the modal high school graduation date was June 1992, and the last date of postsecondary transcript entries was December 2000" (*The Empirical Curriculum*, p. 5). All postsecondary credits, including clock hours, have been standardized to a semester metric. The >10 credits measure is an empirical "adjusted semester." Bachelor's degree recipients earned at least 120 undergraduate semester-credits (*The Empirical Curriculum*, p. 26). For the high school class of 1992 (the NELS:88\2000) the average credit load per semester for bachelor's degree recipients was 14.2. When this figure is adjusted for withdrawals, penalty grades, no-credit repeats, and incompletes, the empirical adjusted semester's worth of earned credits is 10.7. For the sake of convenience, the heuristic of "more than 10" is employed (Adelman, C. Moving Into Town--and Moving On: the Community College in the Lives of Traditional-Age Students. U.S. Department of Education, in press (2005)). The criterion of more than 10 credits excludes "incidental students." Other research suggests that in the Class of 1992, "incidental students" were more likely to be African American or Latino than white. Students who earned 10 credits or less also tend to be academically weaker and have lower precollegiate expectations for educational attainment than those who earned more credits (*Principal Indicators*, p. 33).
- ²⁰ A discrete course category describes subject-matter related courses. An aggregate course category puts together like course categories to form a coherent grouping ("The Empirical Curriculum," p. 5.).
- ²¹ The Empirical Curriculum, p. 37
- ²² The Empirical Curriculum, p. 28
- ²³ Mizell, L. Op cit.
- ²⁴ Mizell, L. *Op cit*.
- ²⁵ Principal Indicators, pp. 85-86.
- ²⁶ "Annual Report 2002-2003," Reston, VA: Higher Education Arts Data Services, Council of Arts Accrediting Associations, 2003.