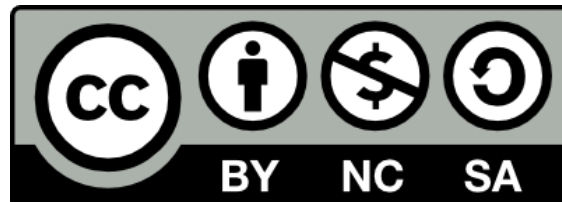




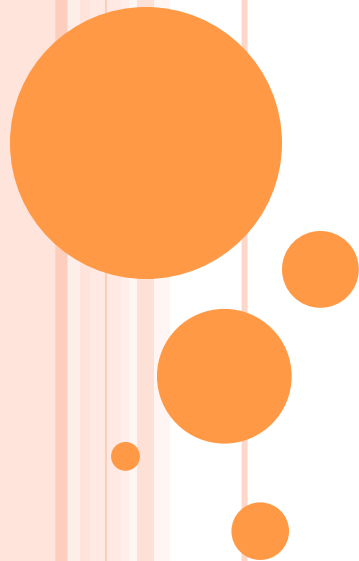
SYMPOSIUM ON LEARNING ANALYTICS AT MICHIGAN



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QUANTATIVE MEASURES OF WRITING ABILITY

Anne Ruggles Gere
Sweetland Center for Writing



BACKGROUND

- Access and rigor in higher education



MATRICULATING STUDENTS

- Mathematics
- Foreign language
- (for many) Chemistry
- Writing

WRITING PLACEMENT

- ELI 120
- Writing 100: Transition to College Writing
- First-Year Composition Requirement Course

HISTORICAL BACKGROUND

- Indirect Measures: prior to 1980s
- Impromptu Essay and Holistic Scoring: 1970s through 1994
- High School Portfolios and Holistic Scoring: 1994-1998
- Directed Self-Placement 1998-2008

DSP SURVEY FOR NATIVE ENGLISH SPEAKERS (2000-2005)

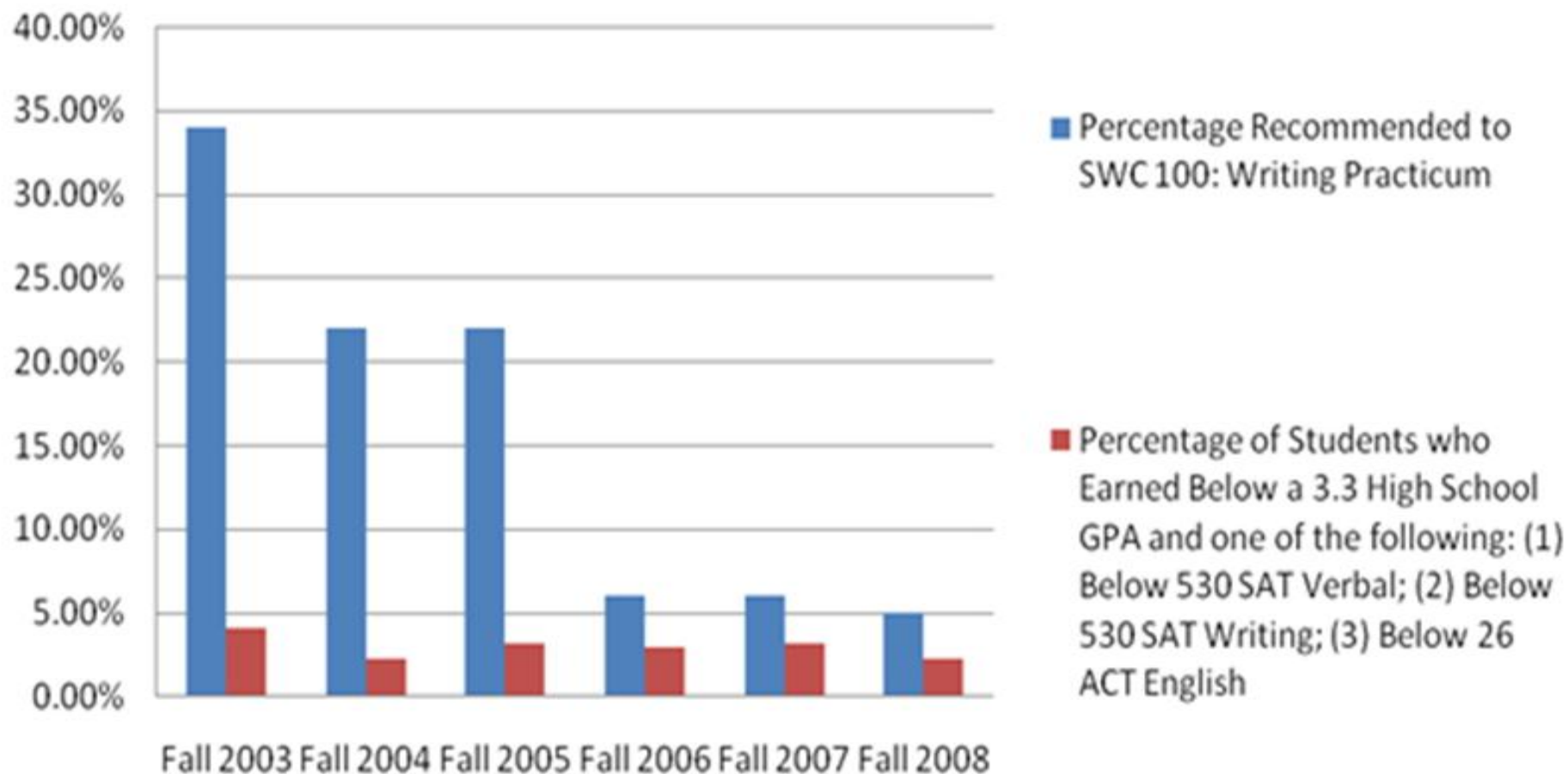
Y N

- O O I read newspapers and periodicals regularly.
- O O During the past year I've read at least four books – fiction, biography, history – outside of class.*
- O O In class, I wrote several 3-5 page essays per year.
- O O Some of my essays were written for classes other than English.
- O O I graduated in the top 20% of my high school class.
- O O I am comfortable using a computer to draft, revise, and polish essays.
- O O I have learned the correct forms of standard written English and make few mistakes in sentence construction, punctuation, and usage.
- O O My ACT-English score was 26 or above, and/or my SAT-Verbal score was 580 or above.

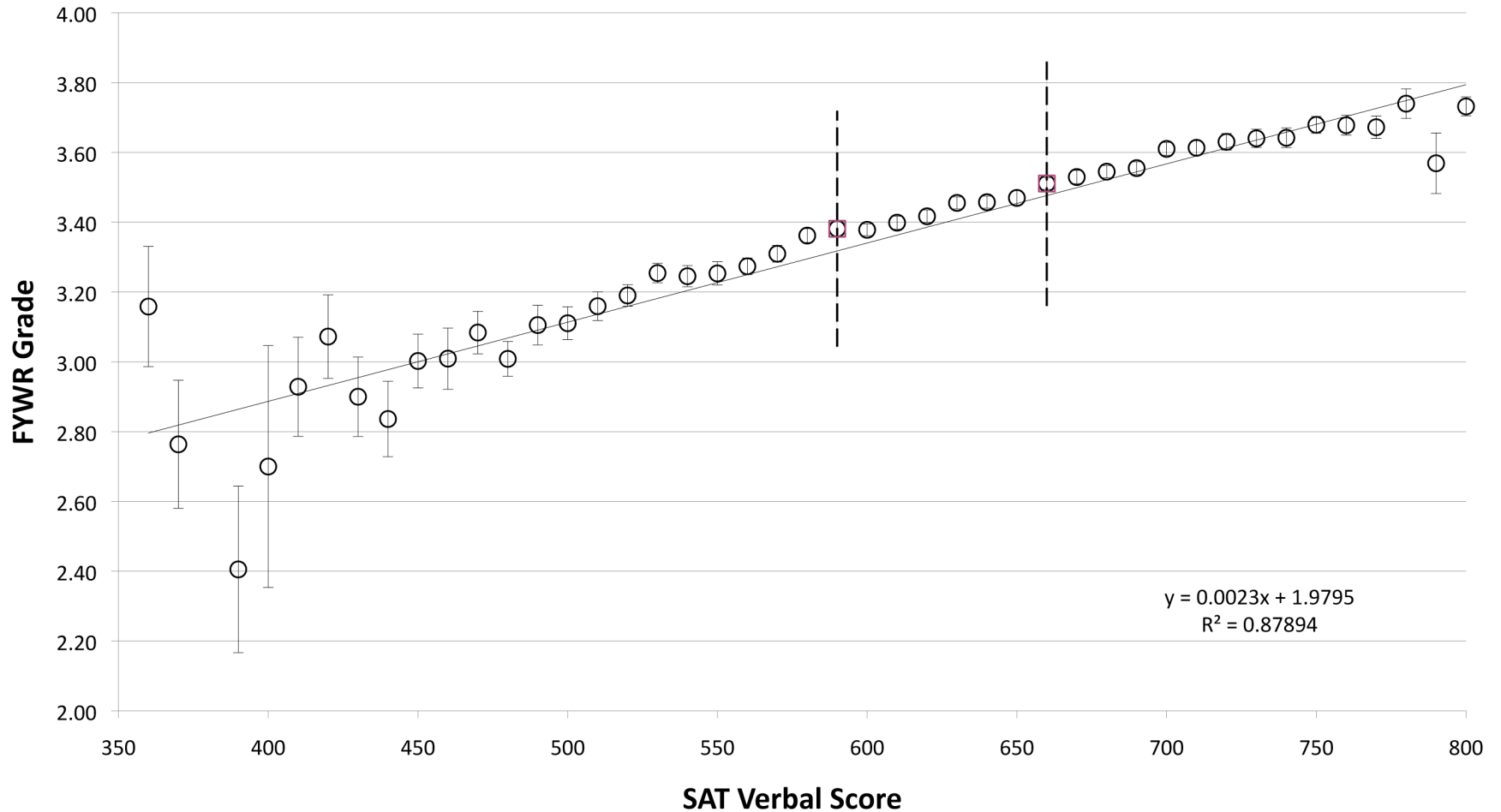
DSP SURVEY FOR NATIVE ENGLISH SPEAKERS (2006-2008)

- I read frequently both for school and for pleasure. agree disagree
- I am confident about my ability to comprehend unfamiliar texts. agree disagree
- I have experience drafting and revising essays. agree disagree
- I am comfortable writing papers longer than four pages. agree disagree
- I am comfortable writing papers for classes other than English classes. agree disagree
- In high school, some of my essays required library research and the citation of sources. agree disagree
- I am comfortable using standard written English, including the correct forms of grammar, punctuation, and sentence construction. agree disagree

Comparison of Practicum Assignments Fall 2003- Fall 2008

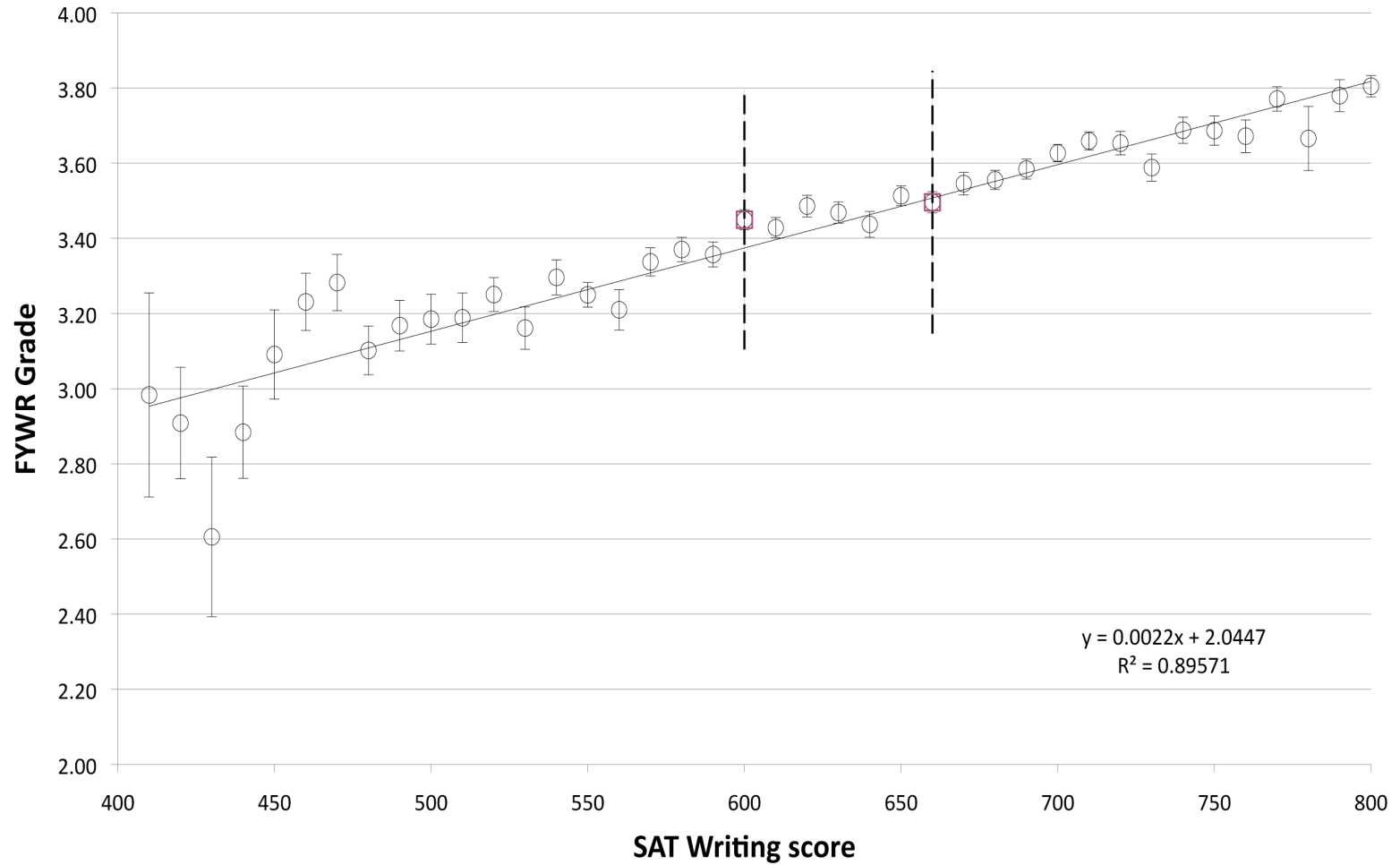


FYWR Grade vs. SAT Verbal score (Fall 2003- Fall 2008)



(n=15319, n<8 excluded)
error bars are standard error of the mean
dashed lines separate top, middle, and bottom third of grades

FYWR Grade vs. SAT Writing score (Fall 2003- Fall 2008)

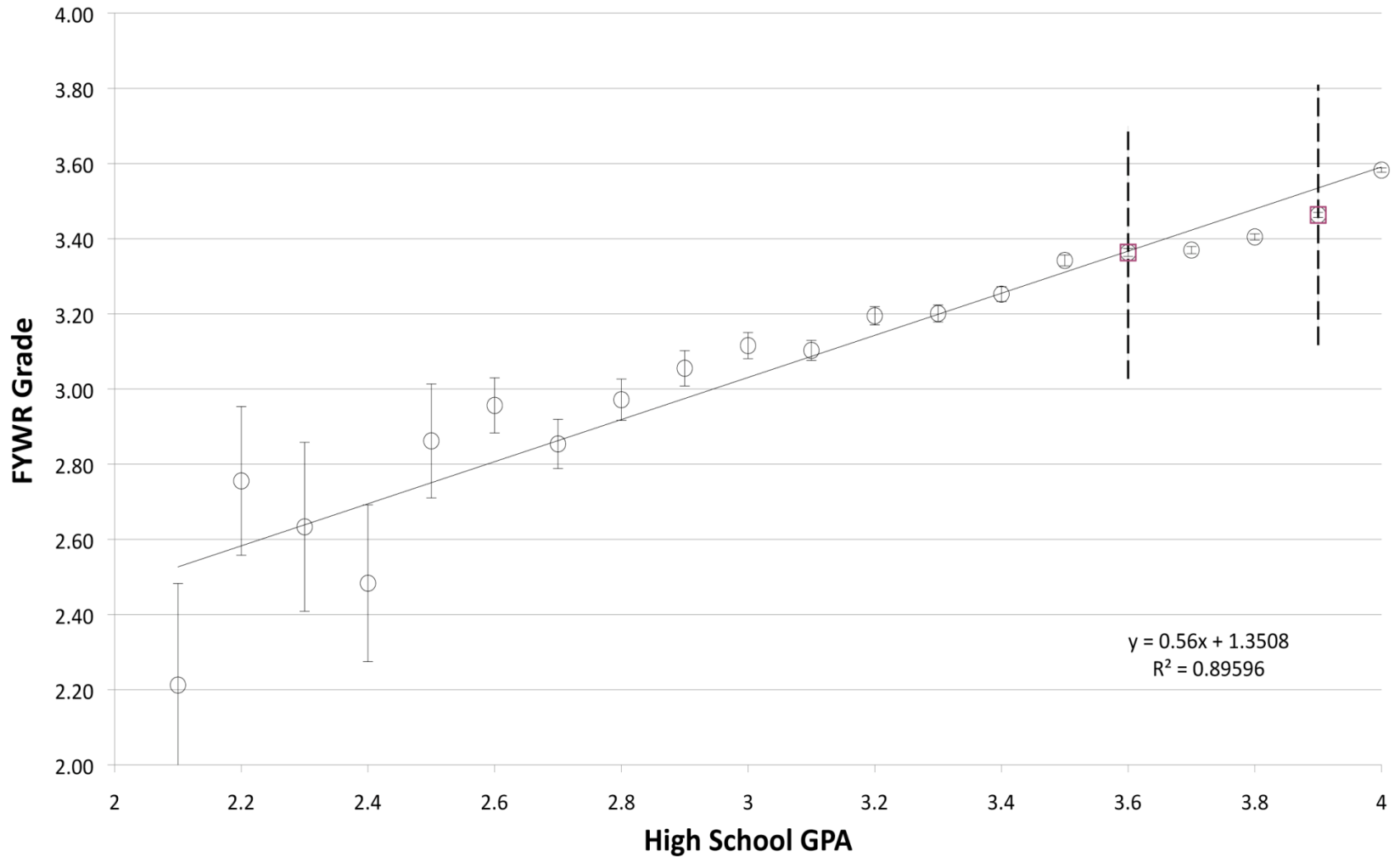


(n=6295, n<8 excluded)

error bars are standard error of the mean

dashed lines separate top, middle, and bottom third of grades

FYWR Grade vs. HS GPA (Fall 2003- Fall 2008)



(n= 25529, n<8 excluded)
error bars are standard error of the mean
dashed lines separate top, middle, and bottom third of grades

- High School GPA 3.3 ↓
- SAT Writing Score 520 ↓
- SAT Verbal Score 520 ↓
- ACT English Score 23 ↓

MODIFIED DSP 2009-PRESENT

- Read article
- Write about article in response to prompt
- Answer questions that address experience of writing and reading as well as more general background

ARTICLE AND PROMPT 2009

Article: “*Most Likely to Succeed: How Do We Hire When We Can’t Tell Who’s Right for the Job?*”

Prompt: Analyze Gladwell’s proposal on how to select and retain teachers in America and argue for or against his proposal using evidence from the article.

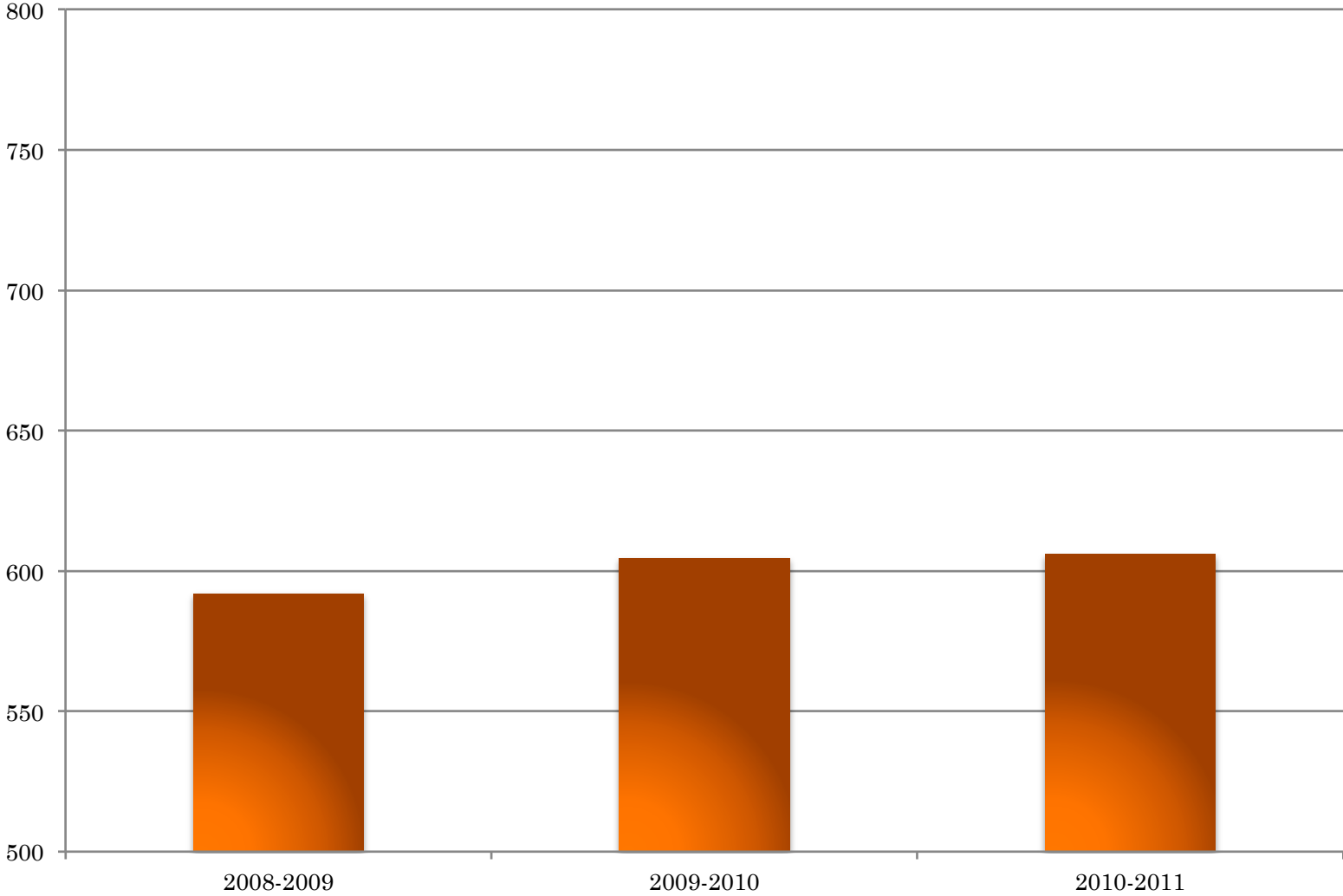
DSP SURVEY FOR NATIVE ENGLISH SPEAKERS 2009-PRESENT

1. In high school, I regularly wrote critical responses to assigned readings, as I did in this task.
2. In high school, I rarely had to write sustained and detailed arguments.
3. I am comfortable writing academic essays longer than four pages.
4. I have experience writing essays on a variety of topics in which I take a position and support that position using evidence.
5. In high school, I wrote essays that required library research and the citation of sources.
6. I read portions of the Gladwell article more than one time.
7. I am confident that I know how to write an effective essay in which I express and support a position.
8. I had trouble finding examples from the Gladwell article to support my argument.
9. In writing my response to the Gladwell article, I went back and looked over my own writing at least once.
10. I feel prepared to write similar essays in my first year of college without a lot of help from my instructor.

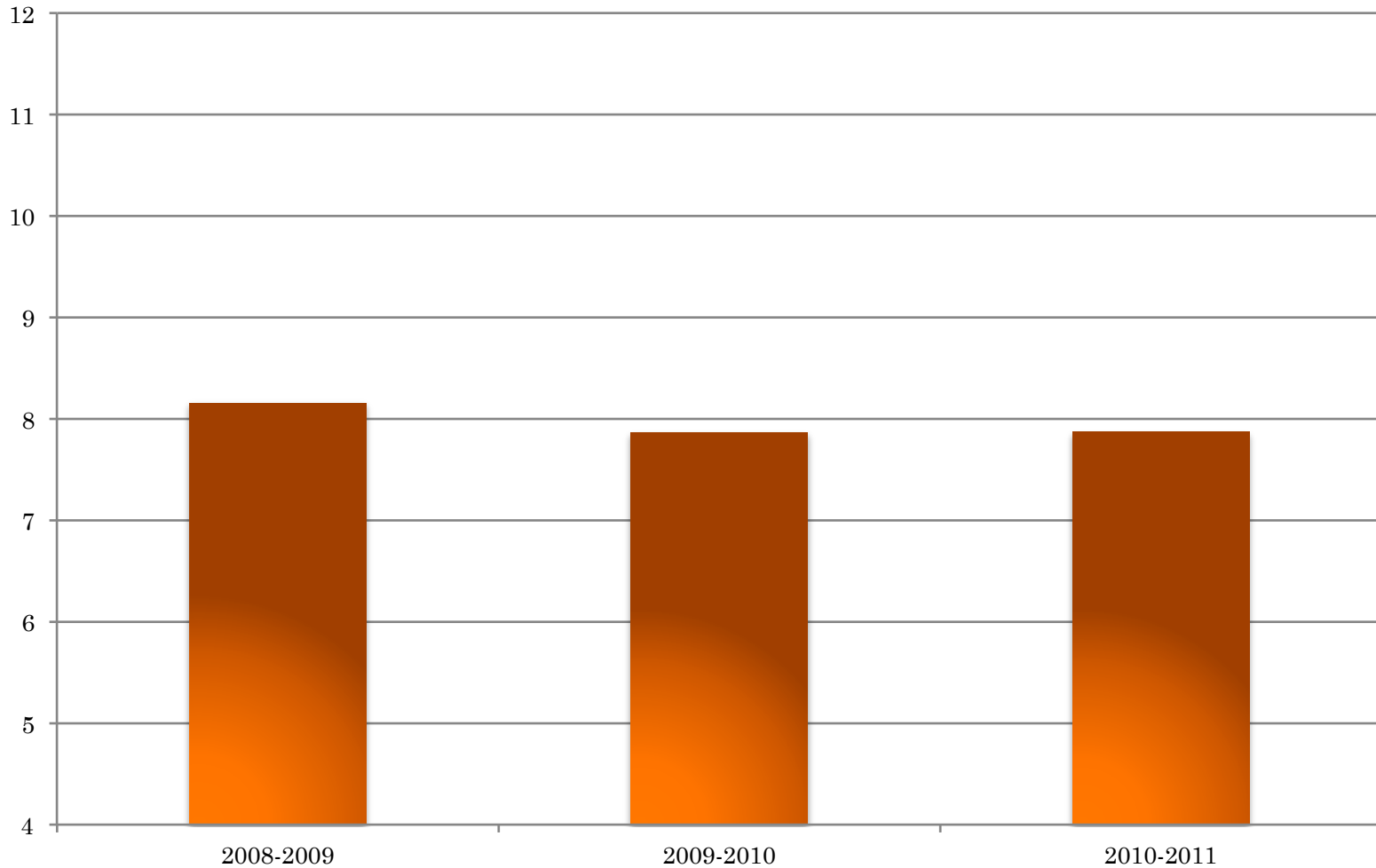
IMMEDIATE RESULTS

- Small (less than 5%) increase in SWC
- Digital versions of over 3000 essays
- Essays incorporated into instruction in first year writing classes

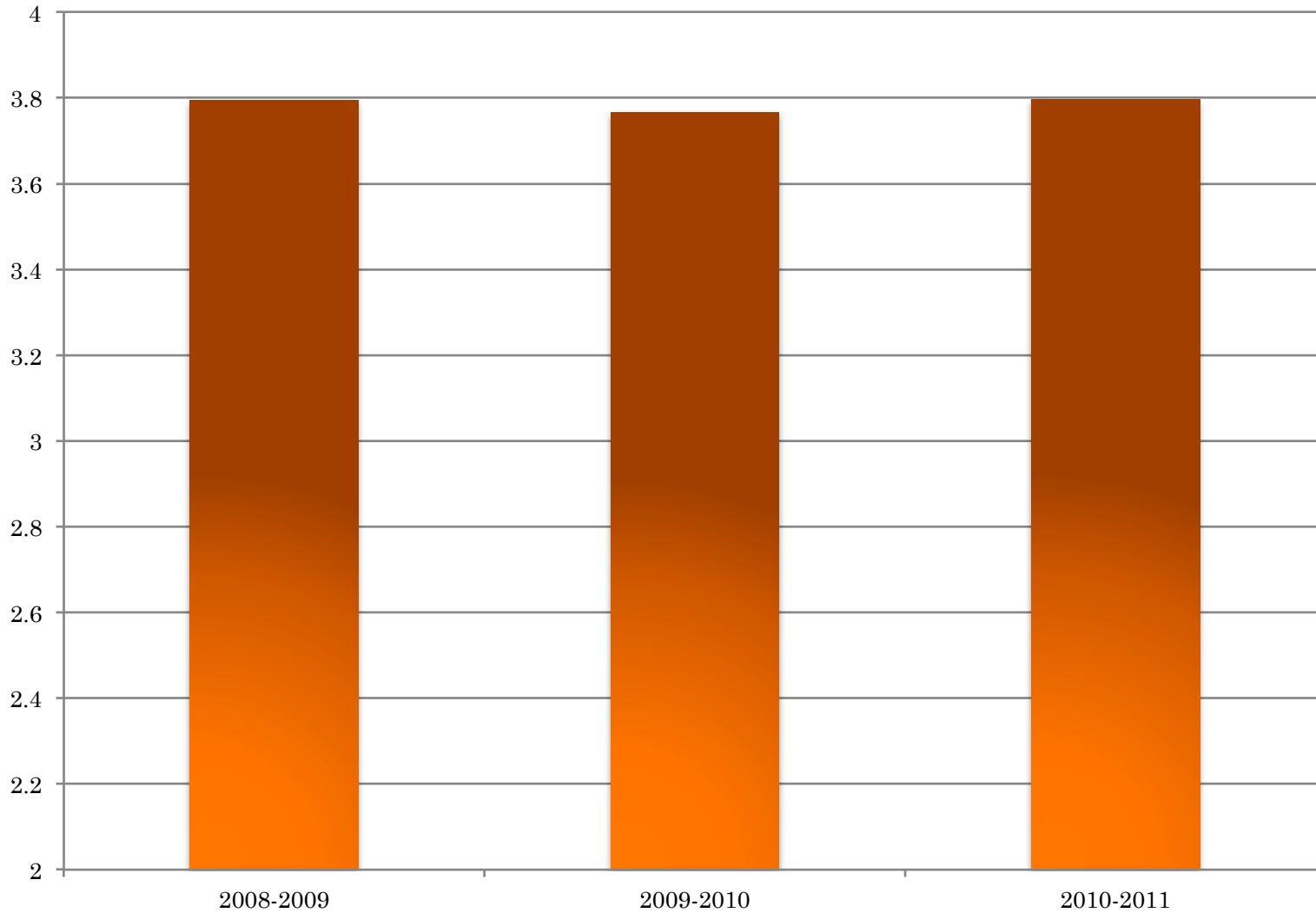
Mean SWC 100 SAT Writing Score



Mean SWC 100 ACT Writing Subscore



Mean High School GPA of SWC 100 Students





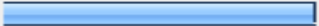
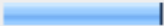
NEXT STEPS

- Attend to consequential validity
- Shift assessment away from merely placement and toward instruction and student growth
- Describe students' growth as writers across undergraduate years





4. Please rank the importance of the following in your choice to take SWC 100, with 4 being very important and 1 being not important at all :

	4	3	2	1	Response Count
UM academic advisor's input	29.5% (23)	33.3% (26)	14.1% (11)	23.1% (18)	78
Online questionnaire results	17.8% (8)	26.7% (12)	35.6% (16)	20.0% (9)	45
Confidence in my own writing ability	65.7% (69)	13.3% (14)	10.5% (11)	10.5% (11)	105
Desire to take a graded course (vs. a credit/no credit course)	8.2% (4)	30.6% (15)	28.6% (14)	32.7% (16)	49
Desire to take a 4-credit course (vs. a 2-credit course)	8.8% (5)	29.8% (17)	36.8% (21)	24.6% (14)	57
Guide to First-Year Writing (pamphlet distributed at Summer Orientation)	10.5% (4)	36.8% (14)	34.2% (13)	18.4% (7)	38
Friend's or parent's advice	10.2% (5)	24.5% (12)	16.3% (8)	49.0% (24)	49
Peer Orientation leader's explanation	5.9% (2)	14.7% (5)	32.4% (11)	47.1% (16)	34
Peer Advisor's recommendation	21.1% (8)	26.3% (10)	36.8% (14)	15.8% (6)	38
Instructor's recommendation	32.4% (11)	26.5% (9)	29.4% (10)	11.8% (4)	34
				Other (please specify)	16
				<i>answered question</i>	143
				<i>skipped question</i>	12

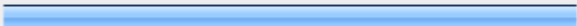
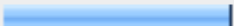
5. What best describes your perception of yourself as a writer *before* taking SWC 100?

		Response Percent	Response Count
Very confident		9.7%	14
Somewhat confident		31.9%	46
A little confident		38.9%	56
Not confident		19.4%	28
		<i>answered question</i>	144
		<i>skipped question</i>	11

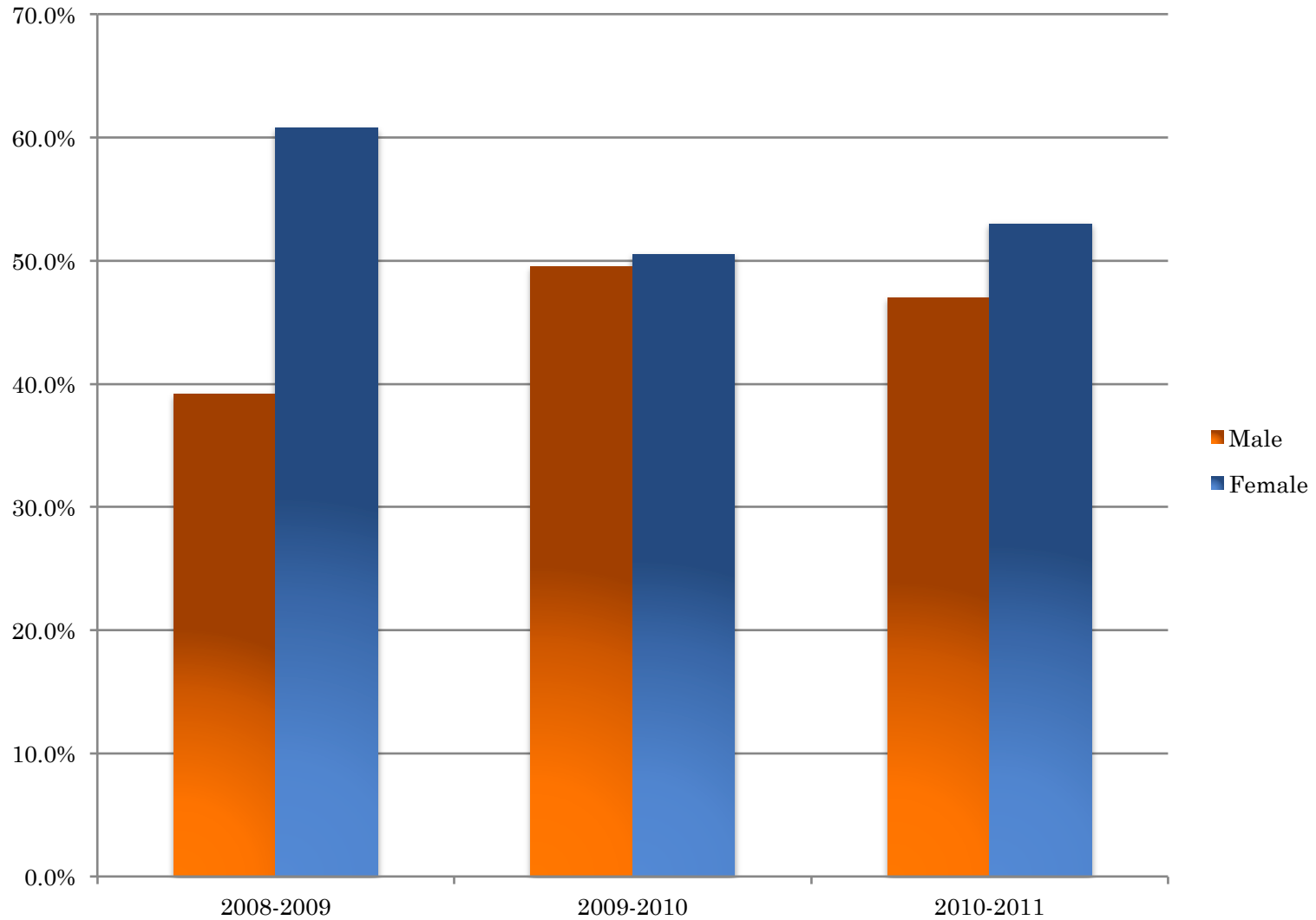
6. What best describes your perception of yourself as a writer *after* taking SWC 100?

		Response Percent	Response Count
Very confident		22.8%	33
Somewhat confident		60.0%	87
A little confident		13.1%	19
Not confident		4.1%	6
		<i>answered question</i>	145
		<i>skipped question</i>	10

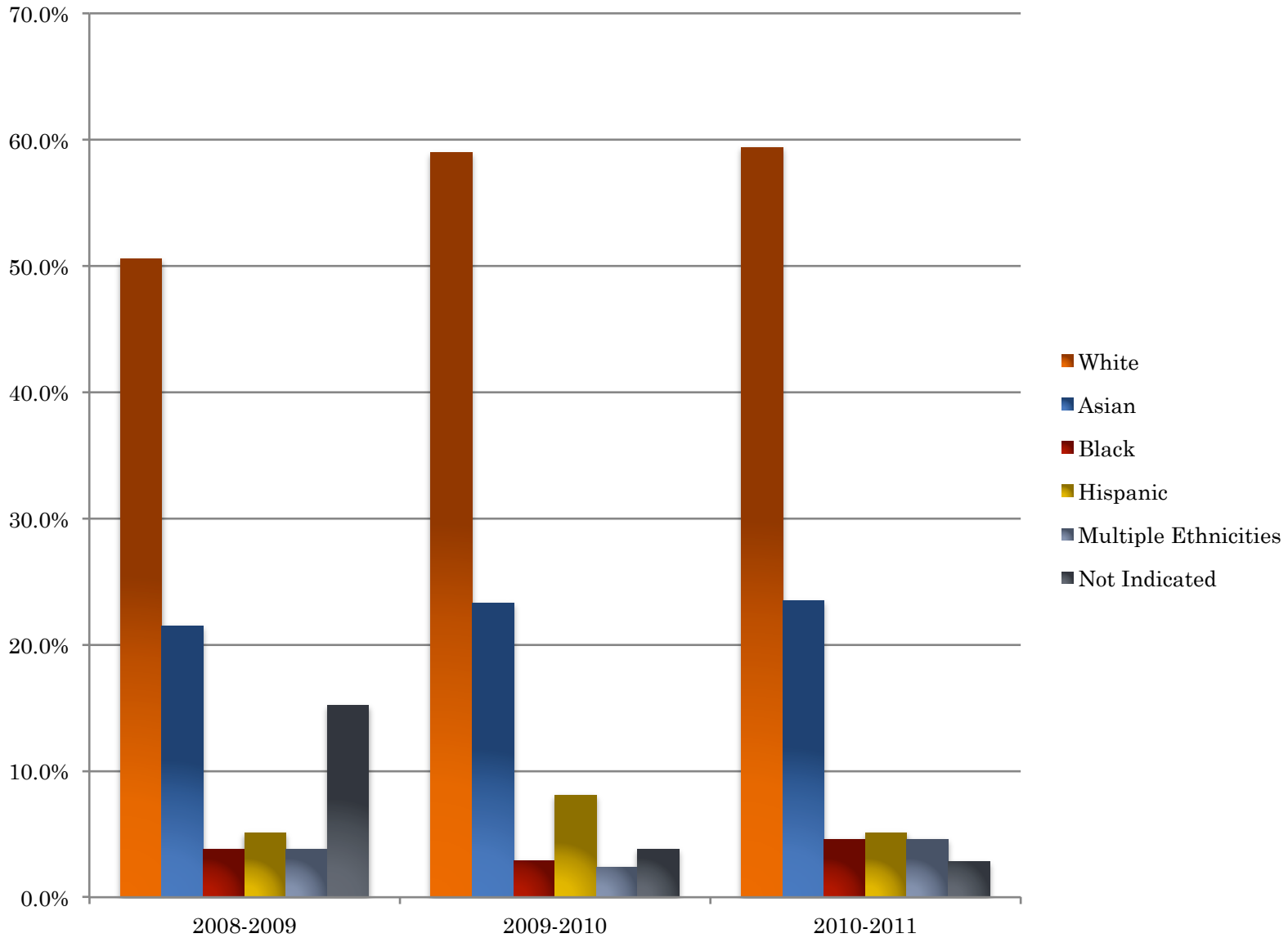
7. Do you think you made the right choice selecting SWC 100?

		Response Percent	Response Count
Yes		71.8%	102
No		28.2%	40
		<i>answered question</i>	142
		<i>skipped question</i>	13

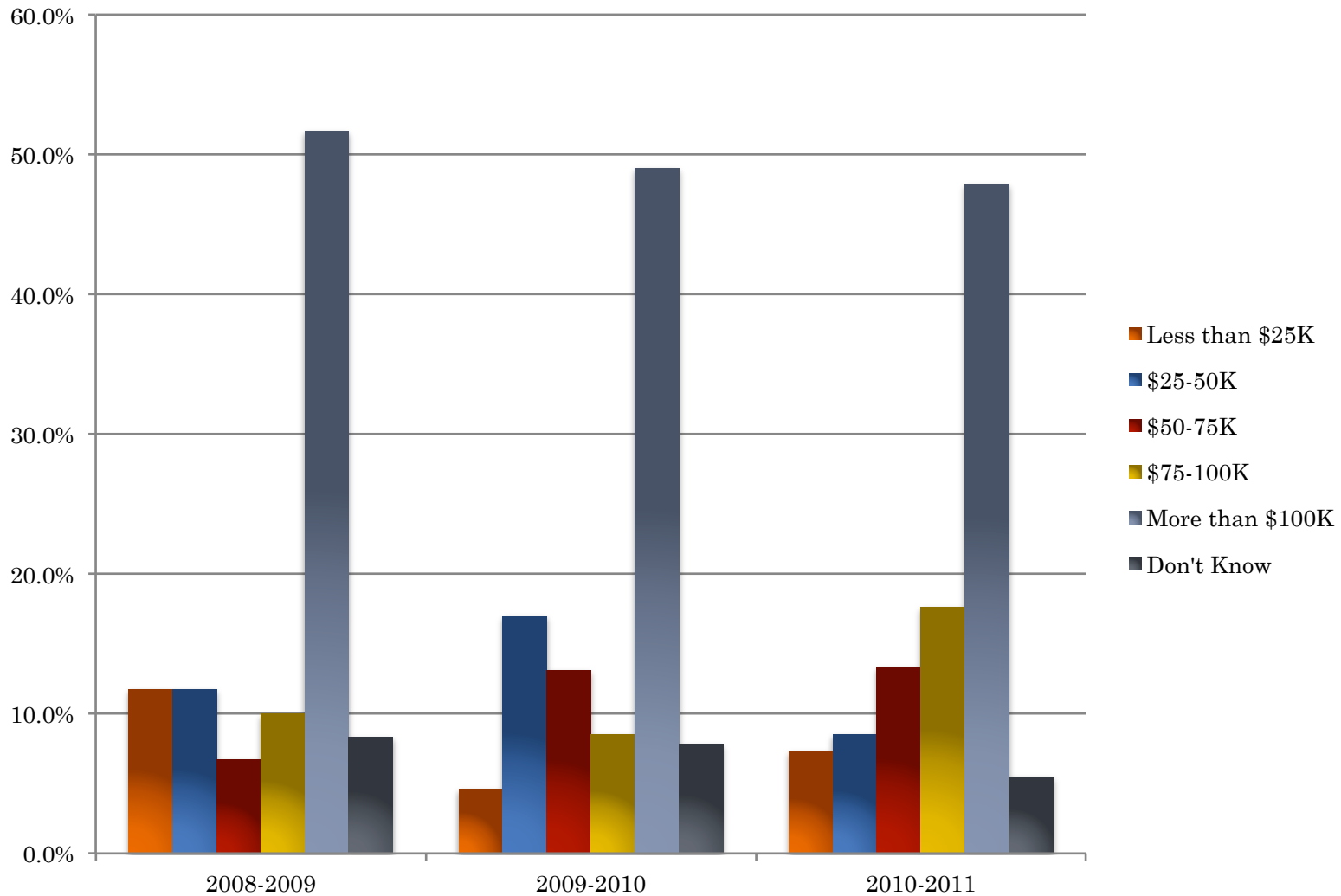
Gender Makeup of SWC 100



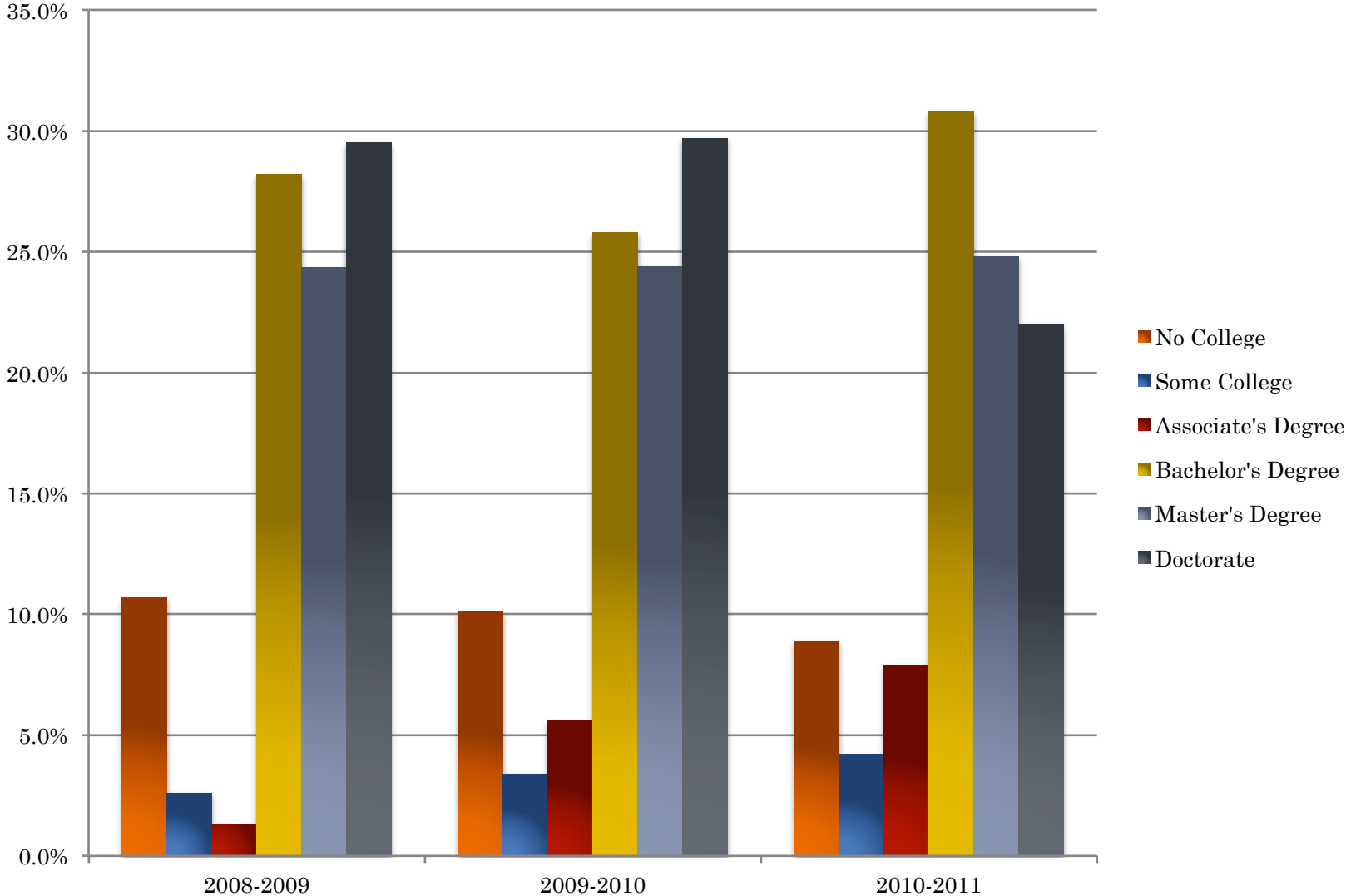
Ethnic Makeup of SWC 100



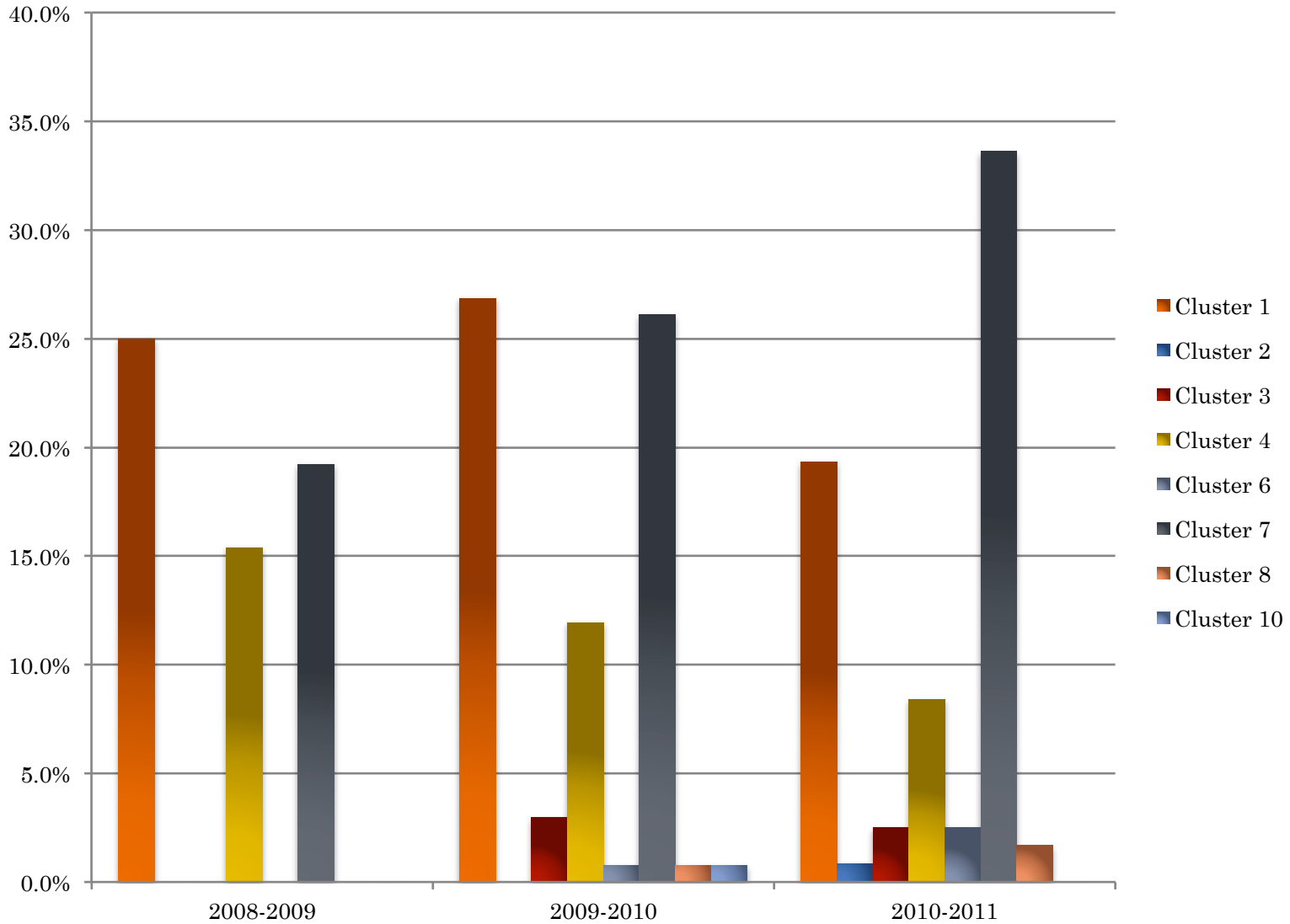
Reported Family Income of SWC 100 Students



Parental Education Levels of SWC 100 Students



Neighborhood Clusters of SWC 100 Students



Neighborhood Clusters

Neighborhood Cluster

1

2.8%

College-bound students come from well-educated, fairly affluent families. They gravitate toward more expensive, selective private colleges farther from home, and away from public institutions closer to home. Academically, they are high-achievers with very strong test scores and strong writing skills. They will be active in college and seek-out leadership roles. The neighborhood is young and predominantly professional, although parents are interested in financial aid (probably merit-based).

Values and Rankings of Key Attributes:

	value	rank		value	rank		value	rank		value	rank
Mean SAT Math Score:	598	2	% of students likely to apply out-of-state:	74%	4	% of non-minority students:	89%	7	Avg parental education level:	7.1	2
Mean SAT Verbal Score:	585	2	Avg acceptance rate at targeted colleges:	74%	25	% public high school students:	81%	22	% of adults in professional jobs:	24%	4
%hs grads entering college:	82%	6	Avg cost of targeted colleges (x 1000):	\$16.4	4	Parents average income (x 1000):	\$74.3	7	Interest in financial aid:	1.4	24

Parents educational level: 1 = grade school, 3 = HS Diploma, 5= associate degree, 7 = bachelors degree, 9 = graduate degree
Interest in financial aid: 0 = no, 1 = maybe, 2 = yes

Neighborhood Cluster

2

2.5%

Close to half of all college-bound students attend private college-prep high schools that send the vast majority of graduates onto college. They tend to target private institutions away from home that emphasize preparation for graduate study. They will be interested in social opportunities and leadership roles at the collegiate level. Parents are well-educated and moderately affluent. They reside in less-established, white-collar suburban neighborhoods with little ethnic diversity. Interest in financial aid is low.

Values and Rankings of Key Attributes:

	value	rank		value	rank		value	rank		value	rank
Mean SAT Math Score:	564	7	% of students likely to apply out-of-state:	60%	8	% of non-minority students:	89%	9	Avg parental education level:	7.0	4
Mean SAT Verbal Score:	562	5	Avg acceptance rate at targeted colleges:	64%	21	% public high school students:	57%	27	% of adults in professional jobs:	22%	8
%hs grads entering college:	83%	4	Avg cost of targeted colleges (x 1000):	\$13.4	11	Parents average income (x 1000):	\$73.3	8	Interest in financial aid:	1.2	27

Parents educational level: 1 = grade school, 3 = HS Diploma, 5= associate degree, 7 = bachelors degree, 9 = graduate degree
Interest in financial aid: 0 = no, 1 = maybe, 2 = yes

Neighborhood Cluster

3

4.2%

College-bound students have average academic credentials and come from public high schools that emphasize a math & science curriculum. They will gravitate toward smaller, private institutions and will rely more heavily on financial aid. They will not typically become active in leadership or service roles at the college level and are not predisposed to graduate level or professional study. The neighborhood is typically older and suburban but may also include newer developments further from cities. Income is above-average and interest in financial aid is below-average.

Values and Rankings of Key Attributes:

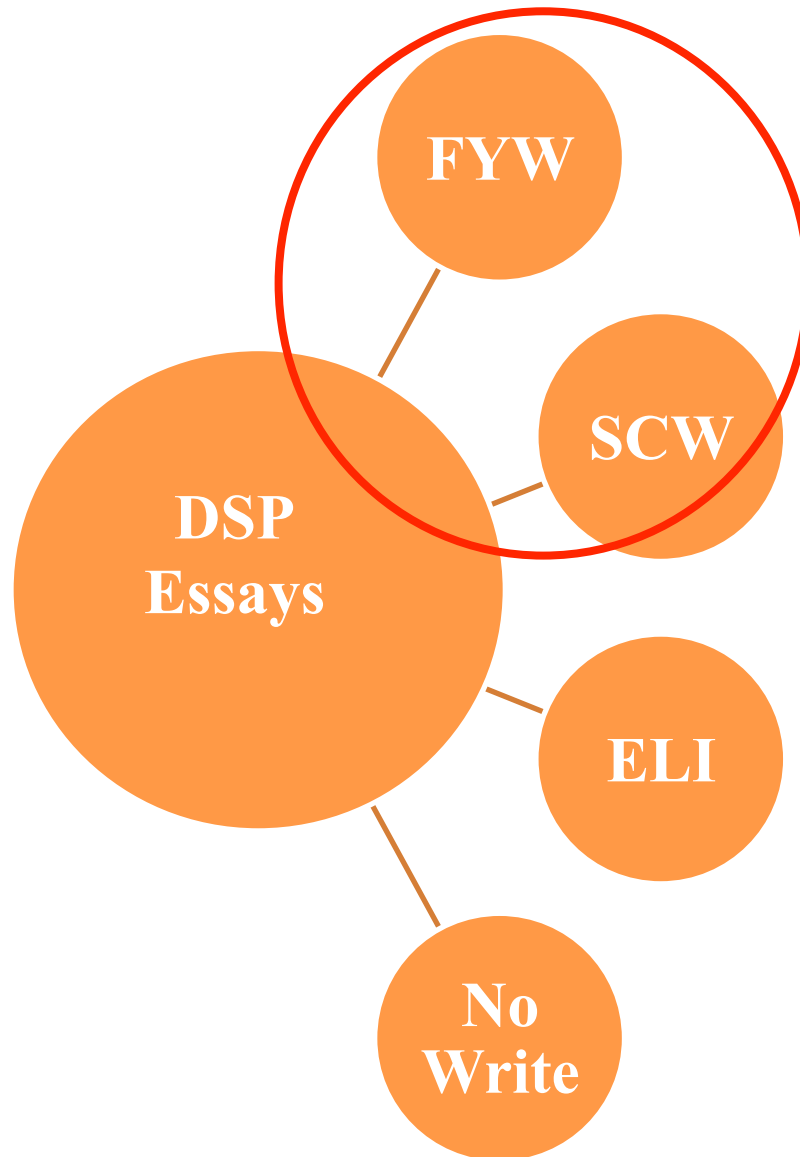
	value	rank		value	rank		value	rank		value	rank
Mean SAT Math Score:	529	12	% of students likely to apply out-of-state:	54%	10	% of non-minority students:	87%	12	Avg parental education level:	5.9	11
Mean SAT Verbal Score:	520	11	Avg acceptance rate at targeted colleges:	62%	24	% public high school students:	82%	19	% of adults in professional jobs:	20%	9
%hs grads entering college:	72%	10	Avg cost of targeted colleges (x 1000):	\$14.6	6	Parents average income (x 1000):	\$74.6	6	Interest in financial aid:	1.4	23

Parents educational level: 1 = grade school, 3 = HS Diploma, 5= associate degree, 7 = bachelors degree, 9 = graduate degree
Interest in financial aid: 0 = no, 1 = maybe, 2 = yes

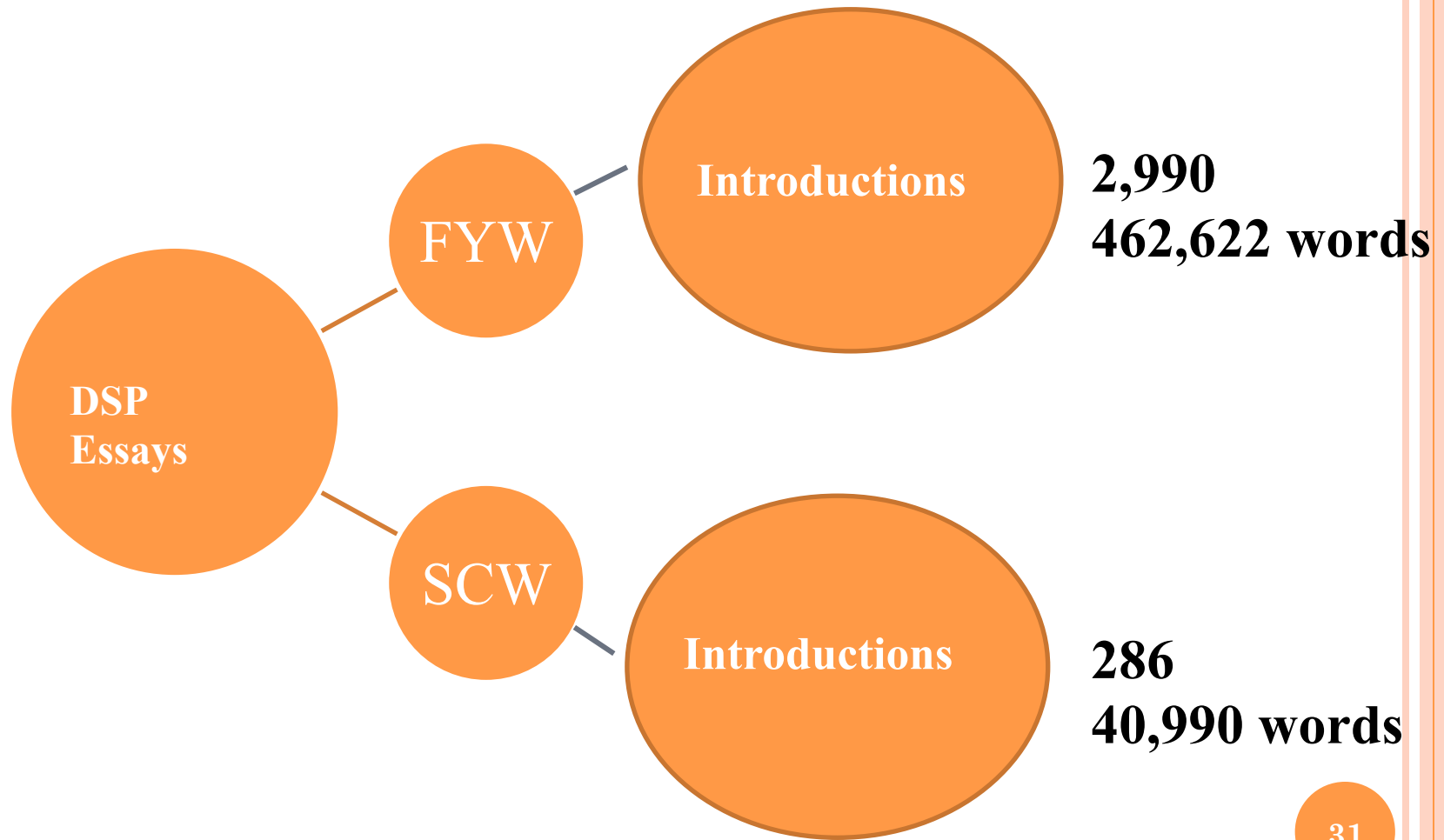
WAYS OF INCORPORATING DSP ESSAYS INTO INSTRUCTION

- Diagnostic Uses
- Goal Setting
- Workshop / Peer Review Practice +
- Learning about Evidence and Quotation
- Office Hours or Conferencing
- Mid-Term or End-of-Term Assessment +
- Gaining Experience with Rubrics +
- Teaching Audience Awareness +
- Evaluating Summarizing Skills +
- Teaching Thesis and Evaluation +
- Teaching Nuance and Complexity +
- Engaging in the Writing Process

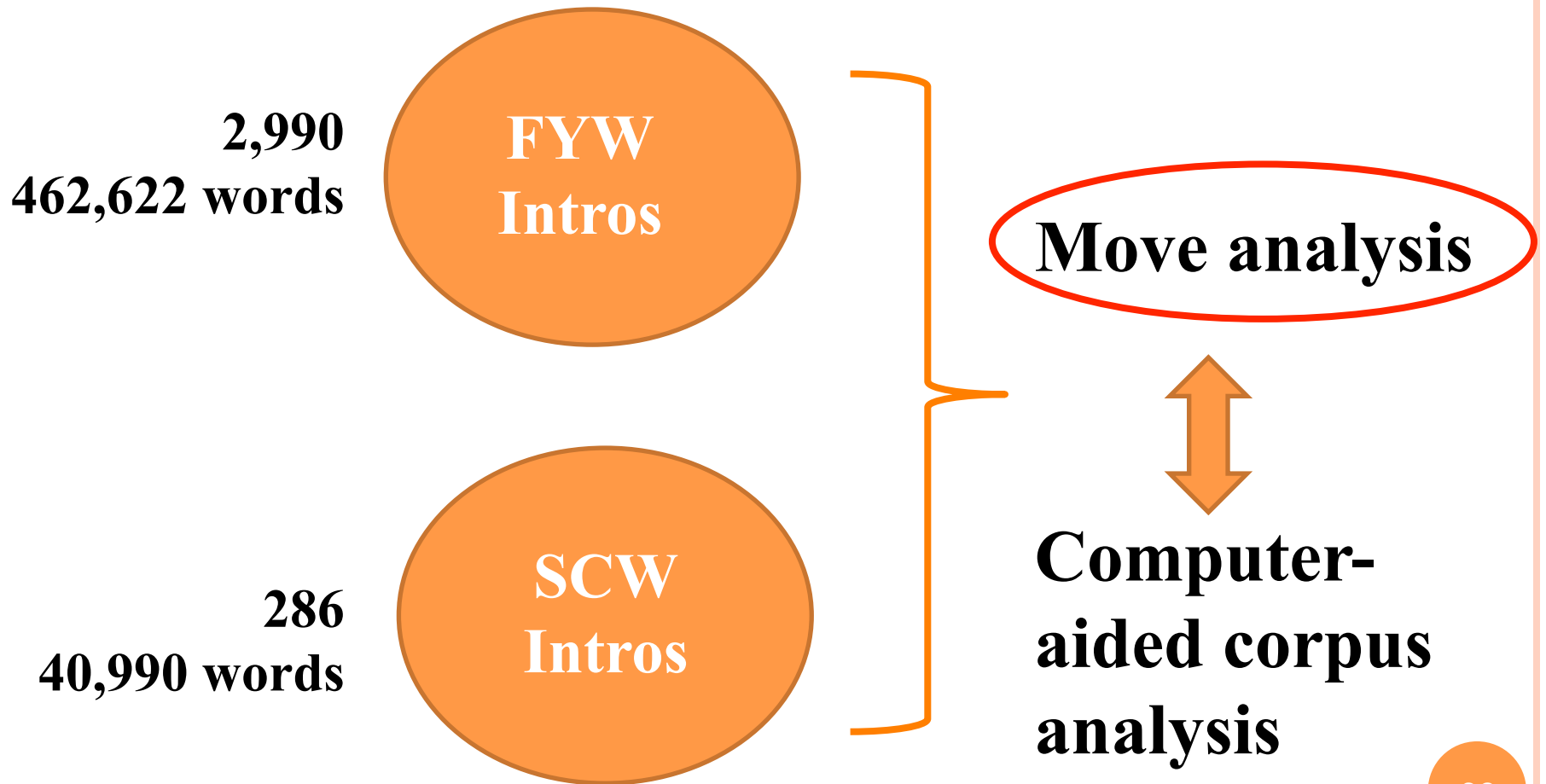
DSP SUB-CORPORA



TWO SUB-CORPORA FOR ANALYSIS



COMBINED ANALYTIC APPROACHES



MOVE STRUCTURE

- ***Background***

Information on the topic (teaching, education)

- ***Review***

Summary (Rev-Sum)

Précis

Evaluation (Rev-Eval)

Précis plus evaluation

- ***Stand***

Partial or full endorsement or critique of reading's thesis

CANONICITY CRITERIA

- Typicality
- Fulfillment of the prompt (genre awareness)

Two obligatory moves for canonicity

- *Background*: **optional**
- *Review* (either *summary* or *evaluation*):
obligatory
- *Stand*: **obligatory**

CANONICITY RESULTS

First-Year Writing

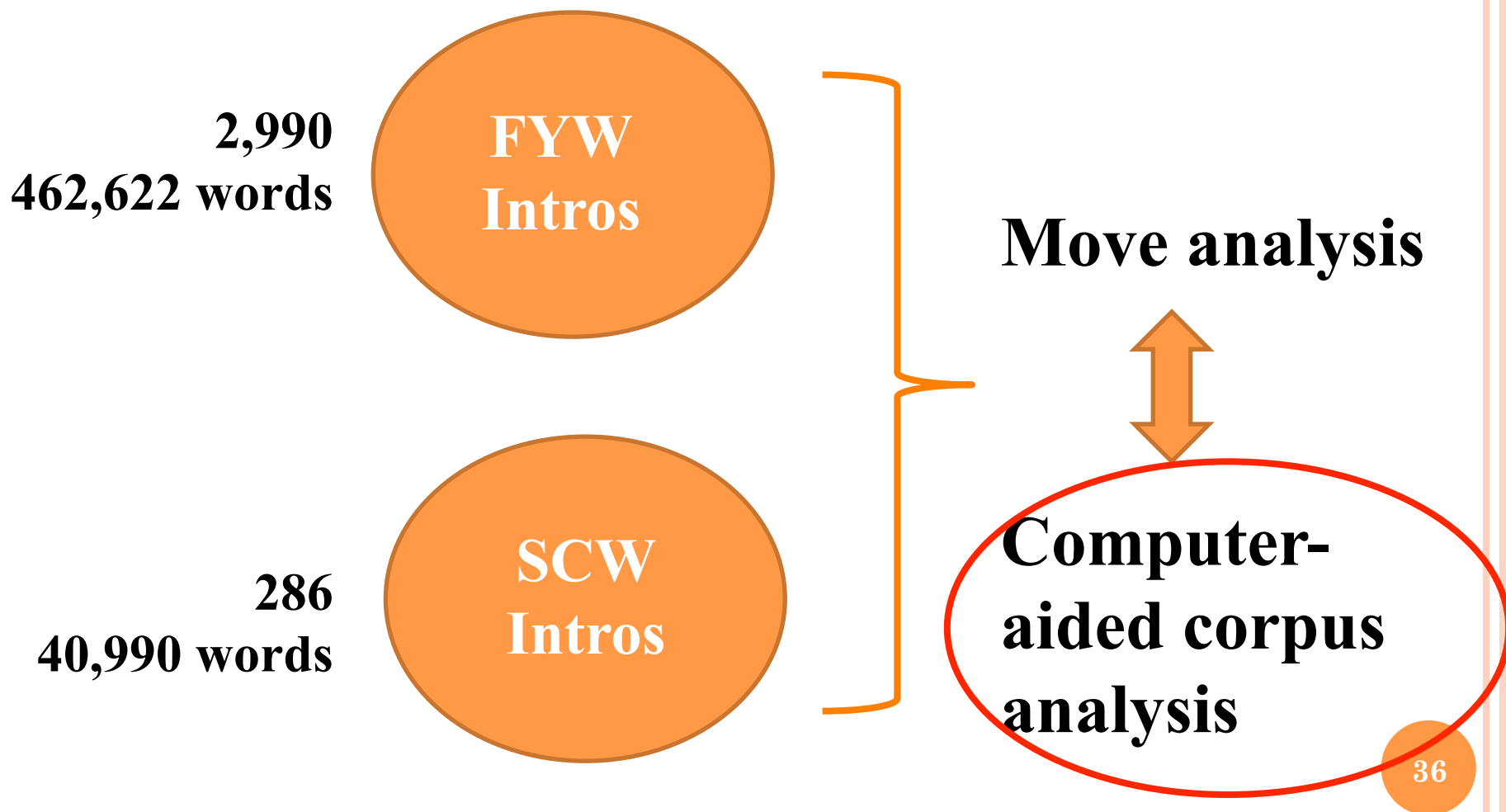
73.2% of the essays are canonical

Sweetland Writing Course

53.4% of the essays are canonical

There is a 19.8 point difference

COMBINED ANALYTIC APPROACHES



Overview of Corpus Findings

In the FYW subcorpus, more writers use:

1. References, citations, and code glosses (e.g., *in other words*)
2. Evidentials of deduction (e.g., *therefore*) and reporting verbs focused on processes of argumentation (e.g., *argues, claims, asserts*)
3. Countering (*However*) and disclaiming (*it is not ...*)
4. Formal hedges (e.g., *perhaps, likely*)

Fewer writers use:

5. Personalized stands, self mentions, and boosters

1A. REFERENCES & CITATIONS

	FYW		SCW	
	per 100,000	% of total	per 100,000	% of total
Refs	784.6	70%	712.3	62%
Cits	658.6	66.8%	585.5	55.9%

1b. Code Glosses

(Vande Kopple, 1985; Hyland, 2005)

FYW		SCW	
per 100,000	% of total	per 100,000	% of total
107.2	20.3%	73.2	9.4%

in fact, specifically, such as, that is to say, that is, which means, this means (that), that means (that), in other words, put another way, indeed, namely, in the sense (that), in this sense

2A. EVIDENTIALS OF DEDUCTION

(BARTON, 1993)

searched items	FYW		SCW	
	per 100,000	% of total	per 100,000	% of total
<i>because, since</i>	172.5	23.5%	219.6	26.9%
<i>hence, consequently, as a result, therefore, for this reason, due to</i>	70.7	15.2%	48.8	6.6%

2B. REPORTING VERBS

Searched items	FYW	SCW
Gladwell ... <i>argues, discusses, claims, asserts</i>	13.3% 88.8	6.3% 43.9
Gladwell ... <i>says</i>	2.6% 17.5	5.3% 31.7
Gladwell ... <i>believes/thinks</i>	3.3% 36.8	8.4% 48.8

4. HEDGES

searched items	FYW	SCW
may, might, could, probably, seem(s), I think, I believe, in my (view/opinion/perspective/experience)	37.7% 377.4	46.0% 444.0
perhaps, indicate(s), suggest(s), possibly, possible, likely	22.1% 172.5	14.7% 116.7

5A. SELF MENTIONS AND PERSONALIZED STANCES

Searched items	FYW	SCW
I agree, I disagree / do not agree / I believe, I strongly ... support/(dis)agree/ believe, I think	17.4% <i>126.6</i>	26.5% <i>192.7</i>
I, we, me, my, our	52.0% <i>1024.1</i>	62.3% <i>1207.6</i>

5B. BOOSTERS

Searched items	FYW	SCW
<i>very, highly, strongly, much, a lot, extremely, totally, definitely, really, exceedingly</i>	17.2% 324.5	28.3% 478.2

MORE FYW WRITERS USE TEXTUAL STRATEGIES THAT:

- Construct a shared context with the imagined reader
- Focus on processes of argumentation
- Negotiate claims with a “critical” reader
- Are congruent with a formal academic register

LOOKING FORWARD

- Additional analysis of subcorpora
- Follow subsets of students who fall into designated categories
- Add data from other sources to create fuller portraits of background at matriculation
- Develop research-based teaching strategies