

Exploratory Examination of Grade Change at The University of Georgia

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Higher Education today

- Acquisition of baccalaureate degree necessary/almost for middle class life in US
- Grades important, especially for some disciplines, for graduate school and/or job placement
- Competition to do well, earn the degree important to students and parents



Grade inflation not a new issue

- ❑ Competitive times for students
- ❑ Increased scrutiny from public, legislators
- ❑ Students don't hesitate to seek institutions or faculty that will give 'easy' grades
- ❑ Faculty hesitate to give low grades and deny student merit-based aid



Many contributing factors

- ❑ Financial pressures
- ❑ Student ability
- ❑ Student demographics
- ❑ Faculty demographics
- ❑ Teaching pedagogy/instructional techniques
- ❑ Combination of the above
- ❑ See full list in Table 5



Like many others....

Officials at UGA have begun to ask if we are
experiencing grade inflation



The University of Georgia

Fall 2004 Data

Undergraduate enrollment	25,019
Graduate enrollment	6,792
First professionals	1,594
Total enrollment	33,405
% Female	57%
% Minority	13.5%
UGA Average SAT score (verbal, math)	1233 (615, 618)
National Avg. SAT score (verbal, math)	1026 (508, 518)
Foreign countries represented	127

Source: UGA Factbook 2004



The University of Georgia

Fall 2004 Data

Tuition and Fees - residents	\$4,472
Tuition and Fees - nonresidents	\$15,588
Schools on the UGA campus	14
Faculty	1,707
% Terminal Degree	94%
One Year Retention	92%
Five-year Grad Rate	69%
Student to Faculty Ratio	18/1
U.S. News Reputation Score	3.5

Source: UGA Factbook 2004 & U.S. News and World Report, 2005

Research Questions

- What is the average term grade point average (GPA) for full-time undergraduates at the University of Georgia for fall terms between 1974 and 2004?
- What are the demographics of the undergraduate students in these fall terms?
- Is there a change in GPA and if so, what factors contribute to the increase/decrease in grades? Particular factors include students demographics, college of enrollment, SAT, and receipt of the HOPE scholarship (merit-based financial aid)



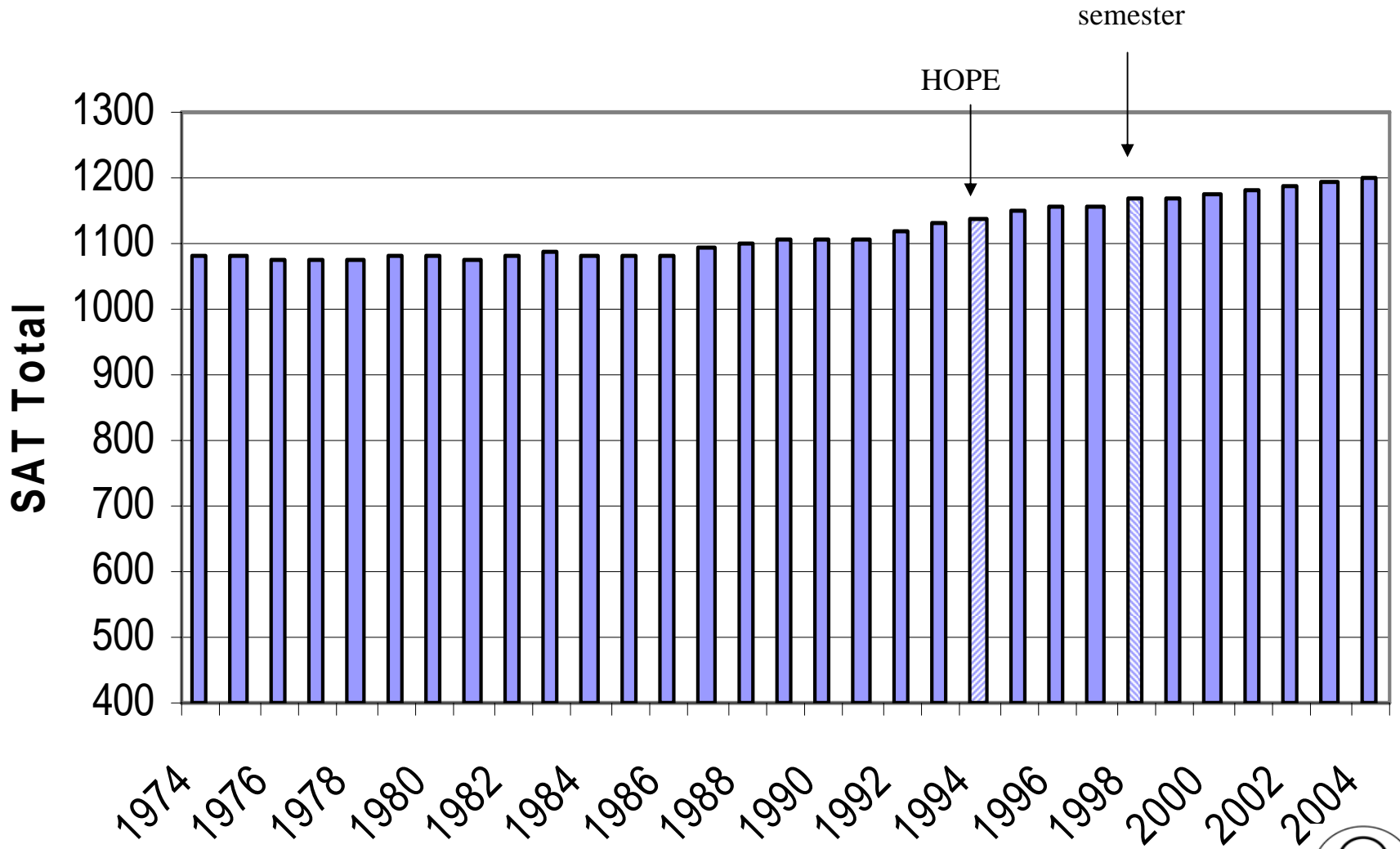
The Sample

- UG students each fall term 1974 – 2004
- Only those with 12+ graded hours (FT)
- Only those with valid SAT and term GPAs
- 368,282 cases of undergraduate students (144,405 individual students)
- Overall average, 55% female, 90% white

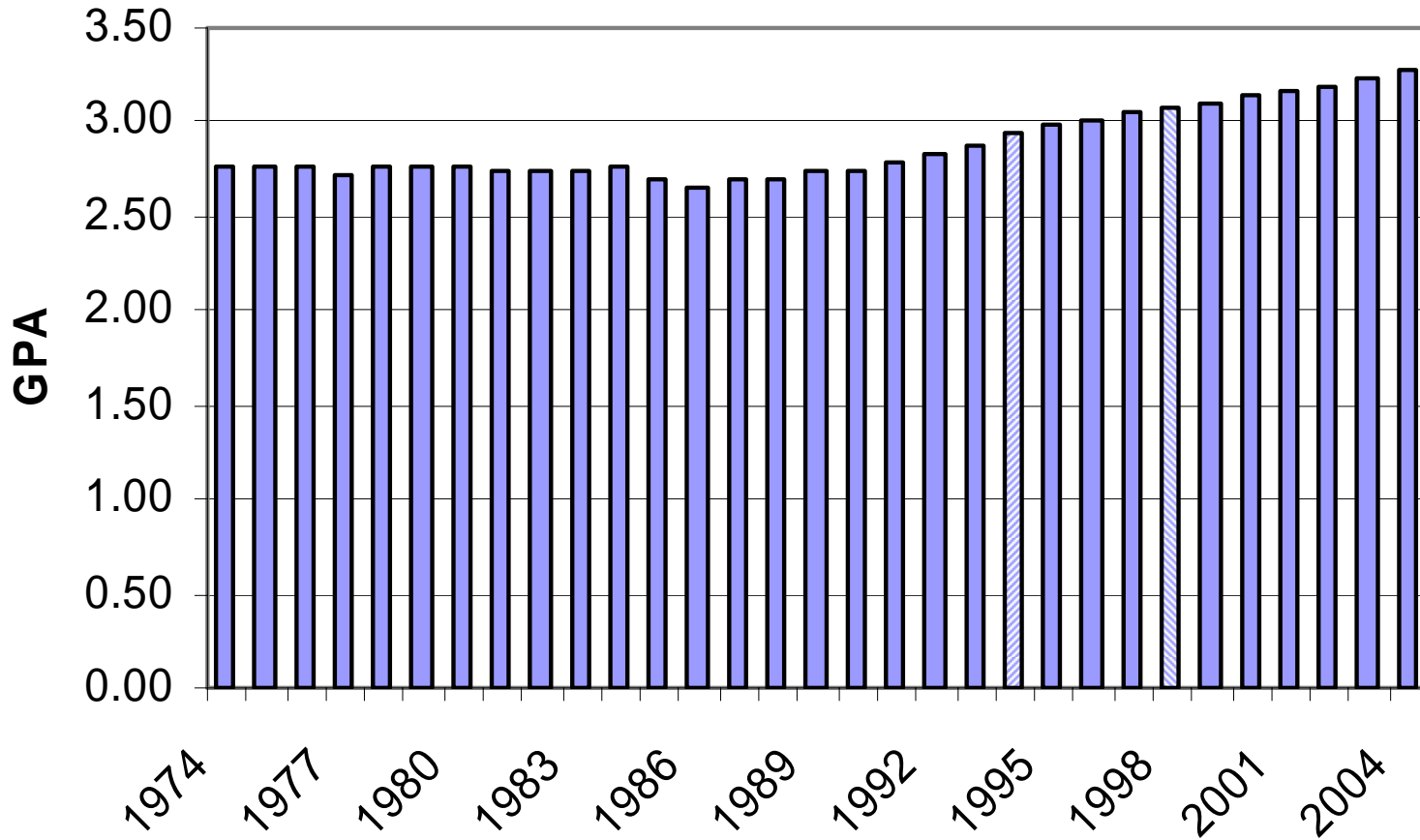
Descriptive Findings

Year	Mean GPA	SD GPA	Mean SAT	SD SAT	N
1974	2.77	0.79	1084	139.75	8622
1978	2.77	0.80	1075	133.44	9706
1979	2.76	0.80	1079	129.29	10109
1980	2.76	0.78	1080	127.96	9906
1981	2.73	0.80	1076	126.05	10621
1985	2.70	0.77	1079	126.13	9490
1986	2.66	0.79	1082	128.34	9633
1987	2.69	0.79	1093	127.88	9686
1988	2.69	0.80	1100	128.93	10599
1992	2.84	0.77	1117	129.53	13296
1994	2.94	0.75	1135	130.52	12923
1995	2.98	0.74	1147	131.00	13454
1999	3.09	0.70	1171	129.55	14439
2000	3.15	0.68	1176	128.67	14818
2003	3.24	0.64	1192	125.92	16600
2004	3.27	0.62	1201	127.55	16245
average	2.91	0.77	1127	136.52	368282

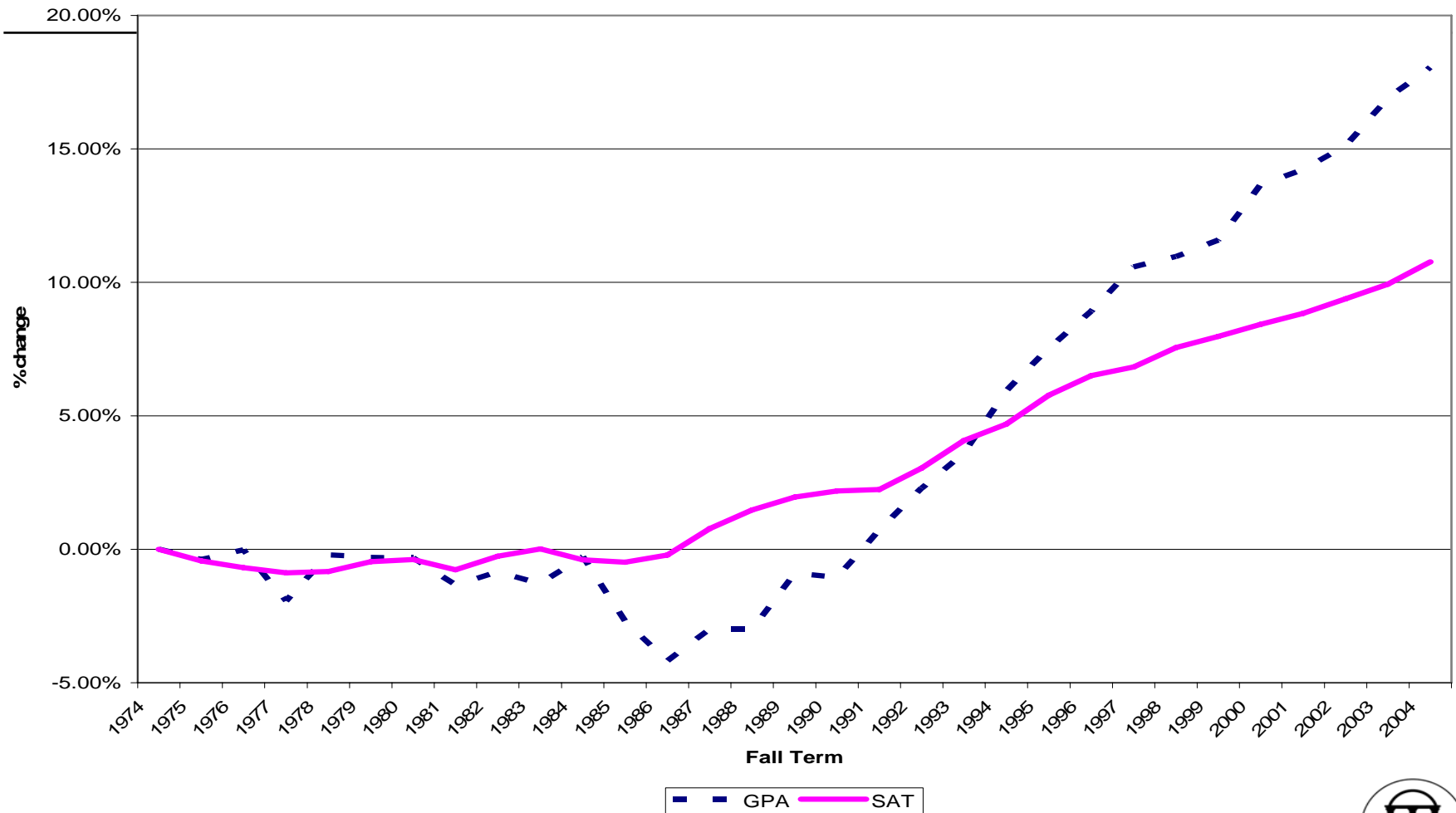
Ave. SAT Total UGA FT Undergraduates



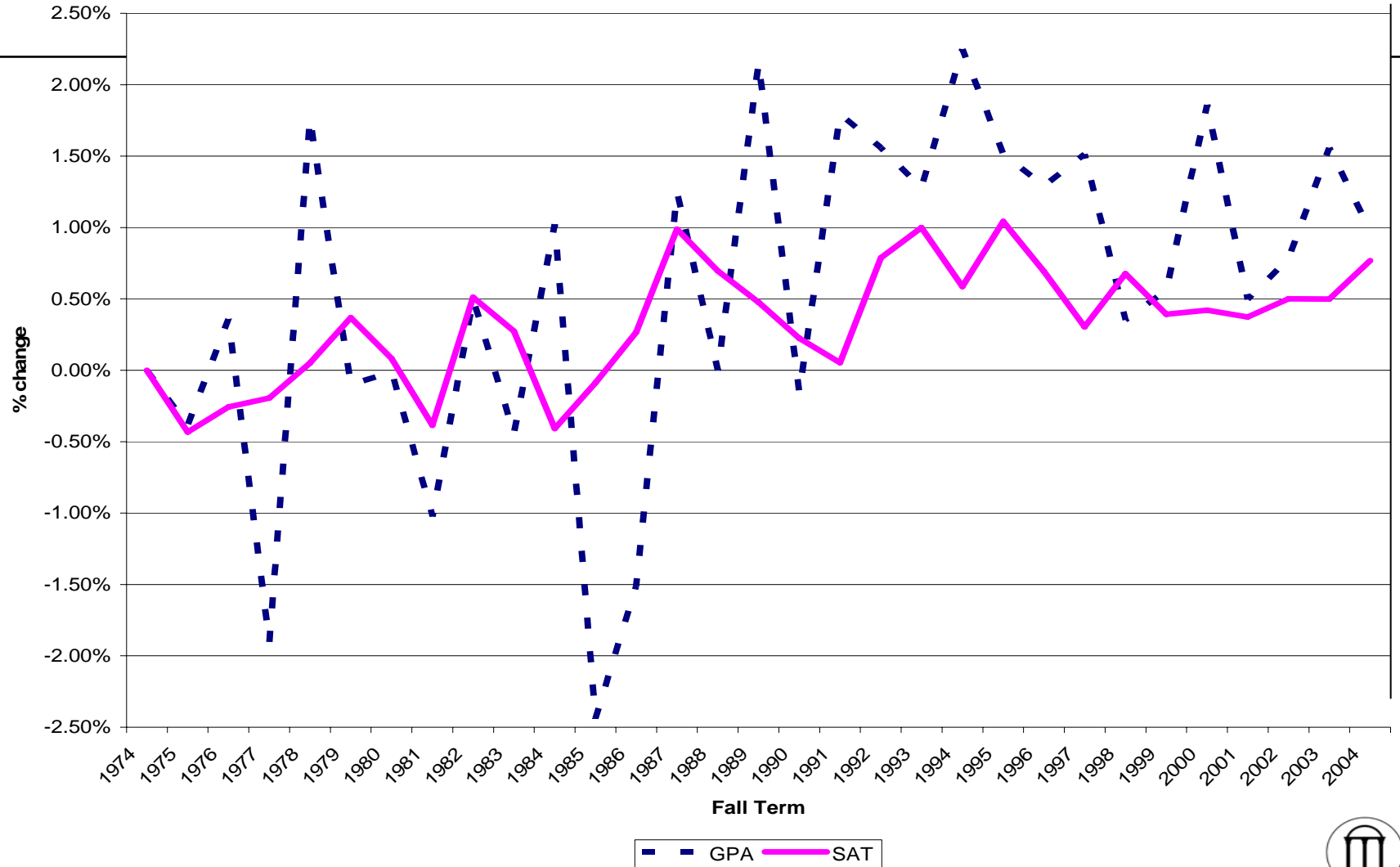
Ave. Term GPA UGA FT Undergraduates



Percent Change GPA and SAT 1974 to 2004



Percent Change SAT and GPA from previous year



Correlation Matrix

		Gender	Ethnicity	Term GPA	SAT Score	HS_GPA	HOPE
Gender	Pearson Correlation	1	0.050	0.140	-0.100	0.183	0.071
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	367687	364539	367687	367687	244909	161034
Ethnicity	Pearson Correlation		1	-0.060	-0.120	0.028	-0.041
	Sig. (2-tailed)			0.000	0.000	0.000	0.000
	N		364877	364877	364877	243081	158929
Term GPA	Pearson Correlation			1	0.310	0.427	0.308
	Sig. (2-tailed)				0.000	0.000	0.000
	N			368282	368282	245377	161590
SAT Score	Pearson Correlation				1	0.396	0.224
	Sig. (2-tailed)					0.000	0.000
	N				368282	245377	161590
HS_GPA	Pearson Correlation					1	0.406
	Sig. (2-tailed)						0.000
	N					245377	151462
HOPE	Pearson Correlation						1
	Sig. (2-tailed)						
	N						161590

Regression Analyses to Further Explore

- Examine contribution of some independent variables
- To calculate predicted GPAs
- Variables included from 1984-2004:
 - SAT, gender, race, college of major
 - hsgpa, transfer, HOPE scholarship

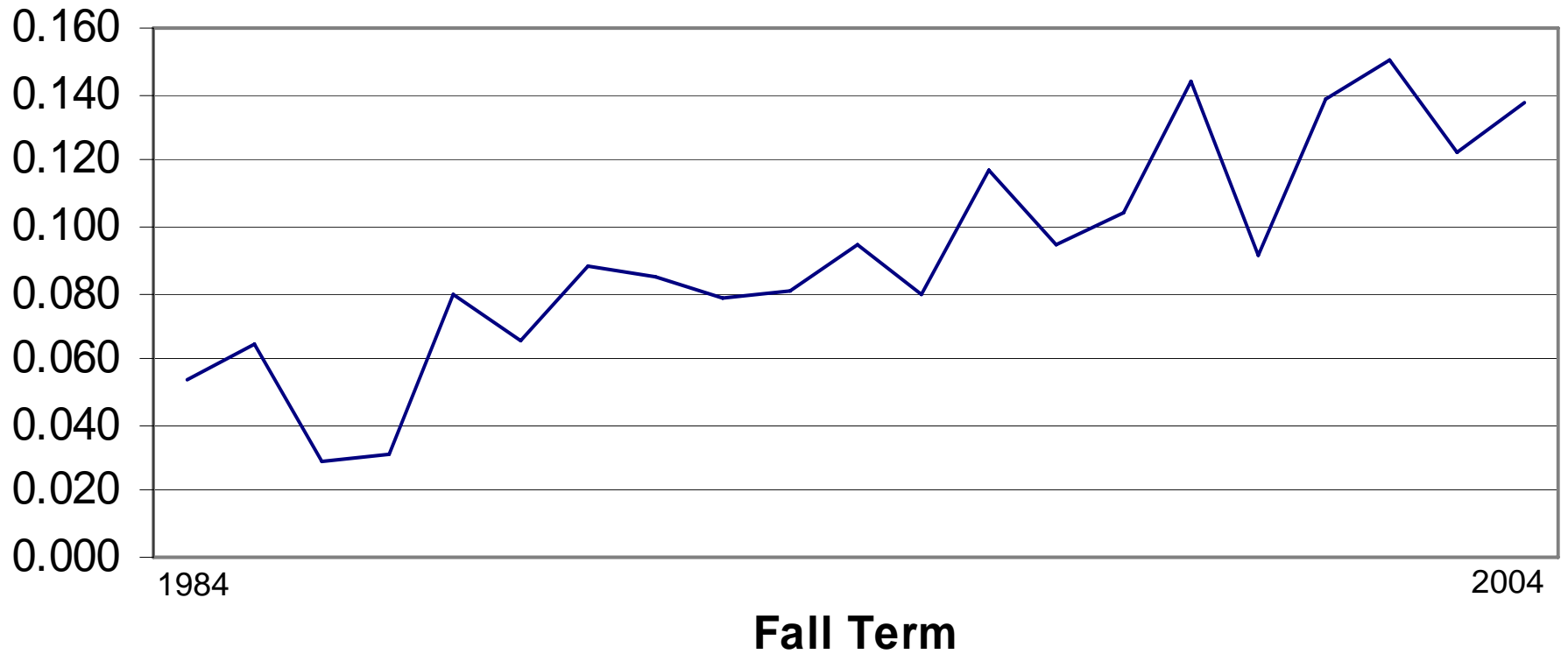


Actual vs. Predicted GPA

Term	Actual Term GPA	Predicted Term GPA
1984	2.667	2.721
1985	2.634	2.697
1986	2.642	2.695
1987	2.687	2.692
1988	2.684	2.700
1989	2.743	2.716
1990	2.734	2.713
1991	2.789	2.722
1992	2.832	2.751
1993	2.864	2.785
1994	2.938	2.890
1995	2.982	2.963
1996	3.025	3.010
1997	3.071	3.040
1998	3.083	3.084
1999	3.103	3.116
2000	3.161	3.142
2001	3.179	3.156
2002	3.203	3.175
2003	3.250	3.192
2004	3.281	3.215

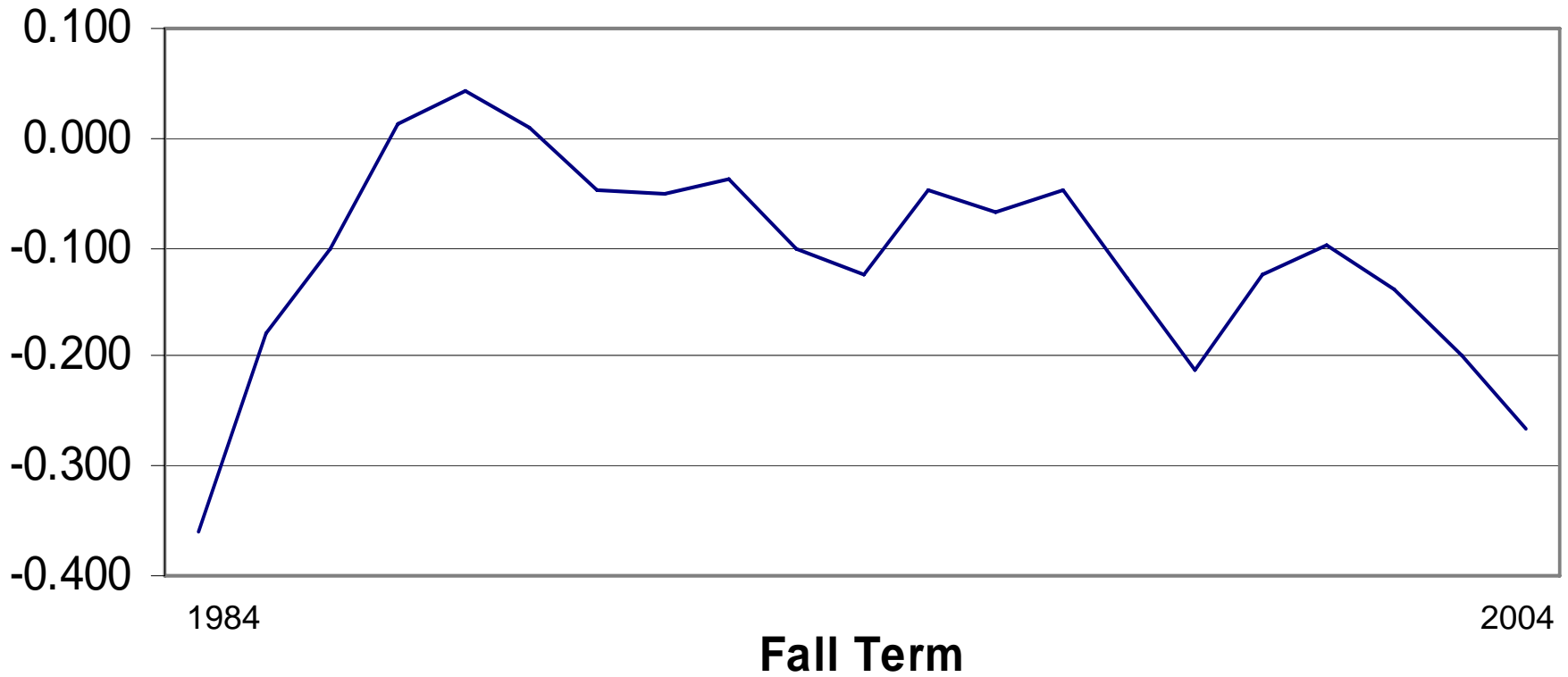
Preliminary Regression Analyses

Unstandardized Coefficients for Gender



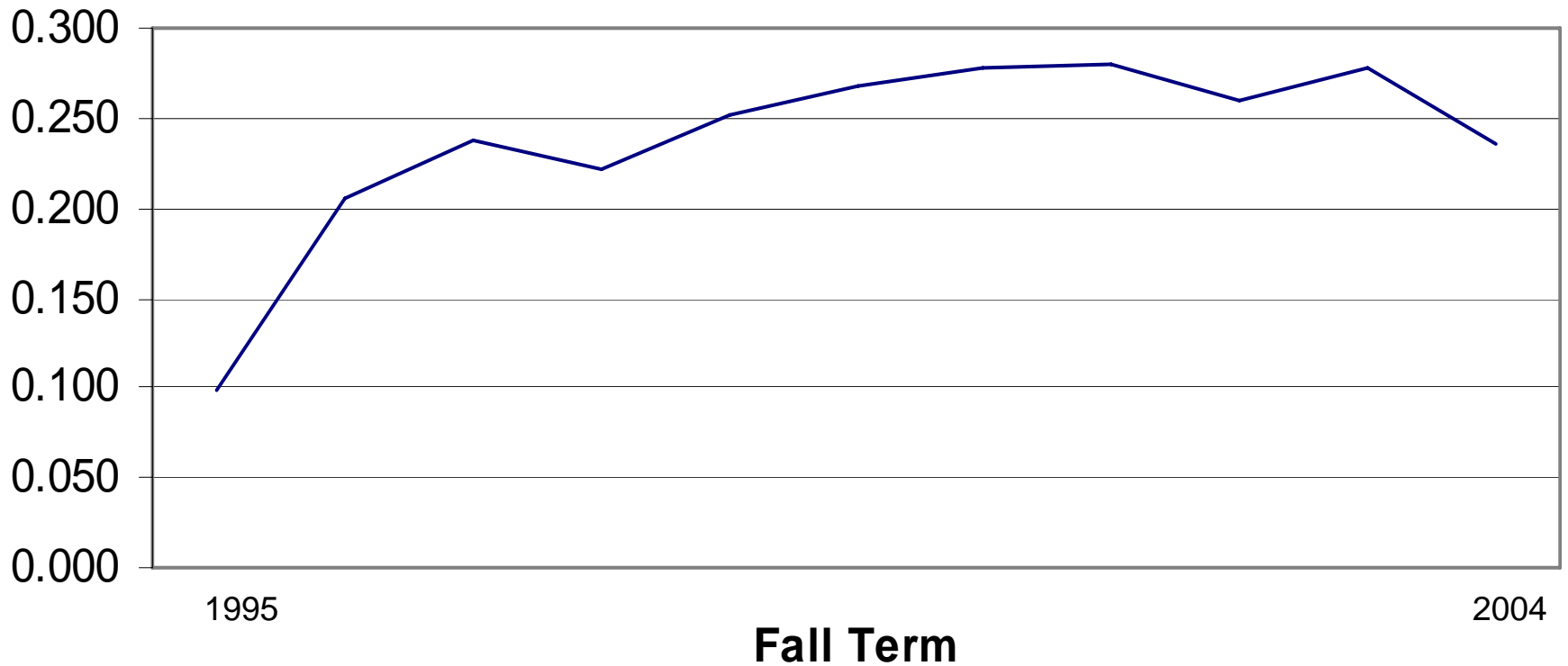
Preliminary Regression Analyses

Unstandardized Coefficients for Agriculture Majors



Preliminary Regression Analyses

Unstandardized Coefficients for HOPE



Summary

- Avg. GPA has risen from 2.77 in 1974 to 3.27 in 2004.
- Avg. SATs have risen from 1084 to 1201
- SDs for SAT and GPAs have narrowed
- Correlations significant but moderate between SAT, GPA, hsgpa, and HOPE

Summary

- Regression model overpredicts GPA in early years; underpredicts in more recent years
- So perhaps grade inflation... but...
- Adj. R-squares low (.19-.26)
- Relative contribution of gender, college major, & receipt of HOPE vary over the years
- This indicates something else going on

Other possible contributors

- ❑ Other student demographics
- ❑ Faculty demographics and perceptions
- ❑ Do faculty give different grades based on gender/race (of faculty and/or students)
- ❑ Teaching pedagogy/instructional techniques
- ❑ Effect of instructor evaluations
- ❑ Academic load (FT/PT)
- ❑ Scale of grades and lack of plus/minus
- ❑ Criteria for grades to be assigned
- ❑ Combination of the above
- ❑ See full list in Table 5



Limitations

- ❑ Single institution
- ❑ Only FT undergrad students with valid scores
- ❑ Changes in student demographics
- ❑ SAT used as proxy for student ability
- ❑ R-squares low, so models not perfect
- ❑ Collinearity concerns addressed, so not a problem

Questions?

- ❑ Are you examining this issue on your campus?
- ❑ Who/how did the issue come to light?
- ❑ What contributing factors are you including?
- ❑ Would be nice to include other variables but many are difficult to quantify
- ❑ How address the interplay of many variables?



Thank You!
