

# High School GPA and ACT Scores as Predictors of 'On-Time' Graduation

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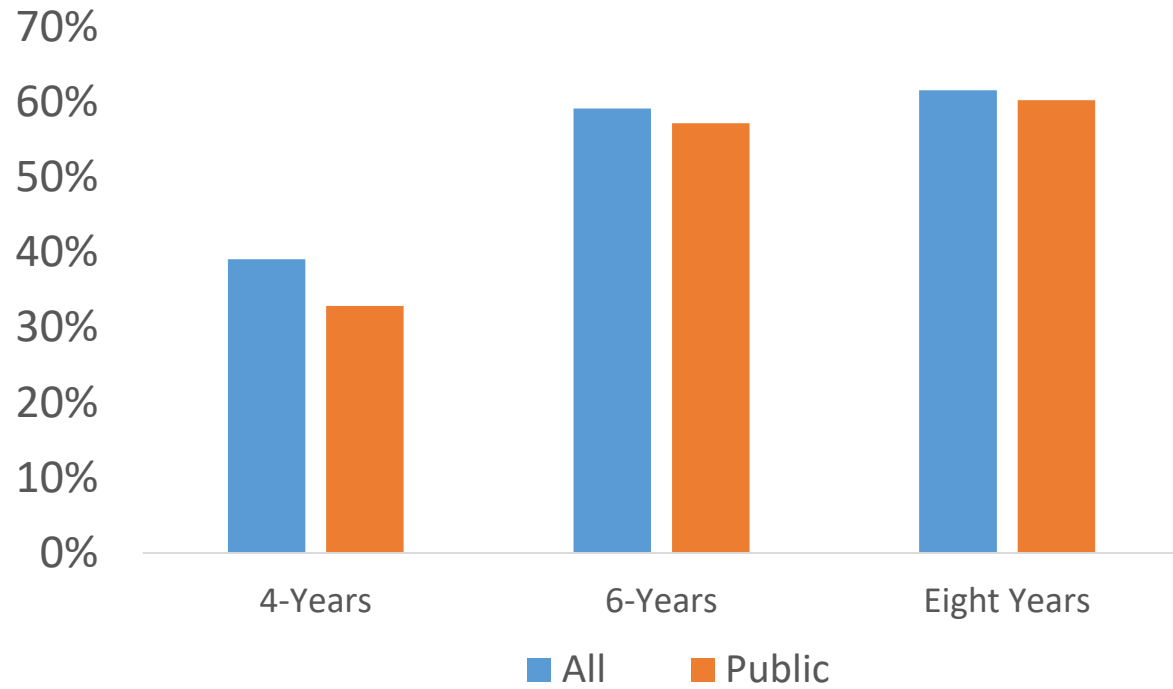
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# Background

## Graduation Rates, 2006 and 2010 Cohorts



USDE, 2018

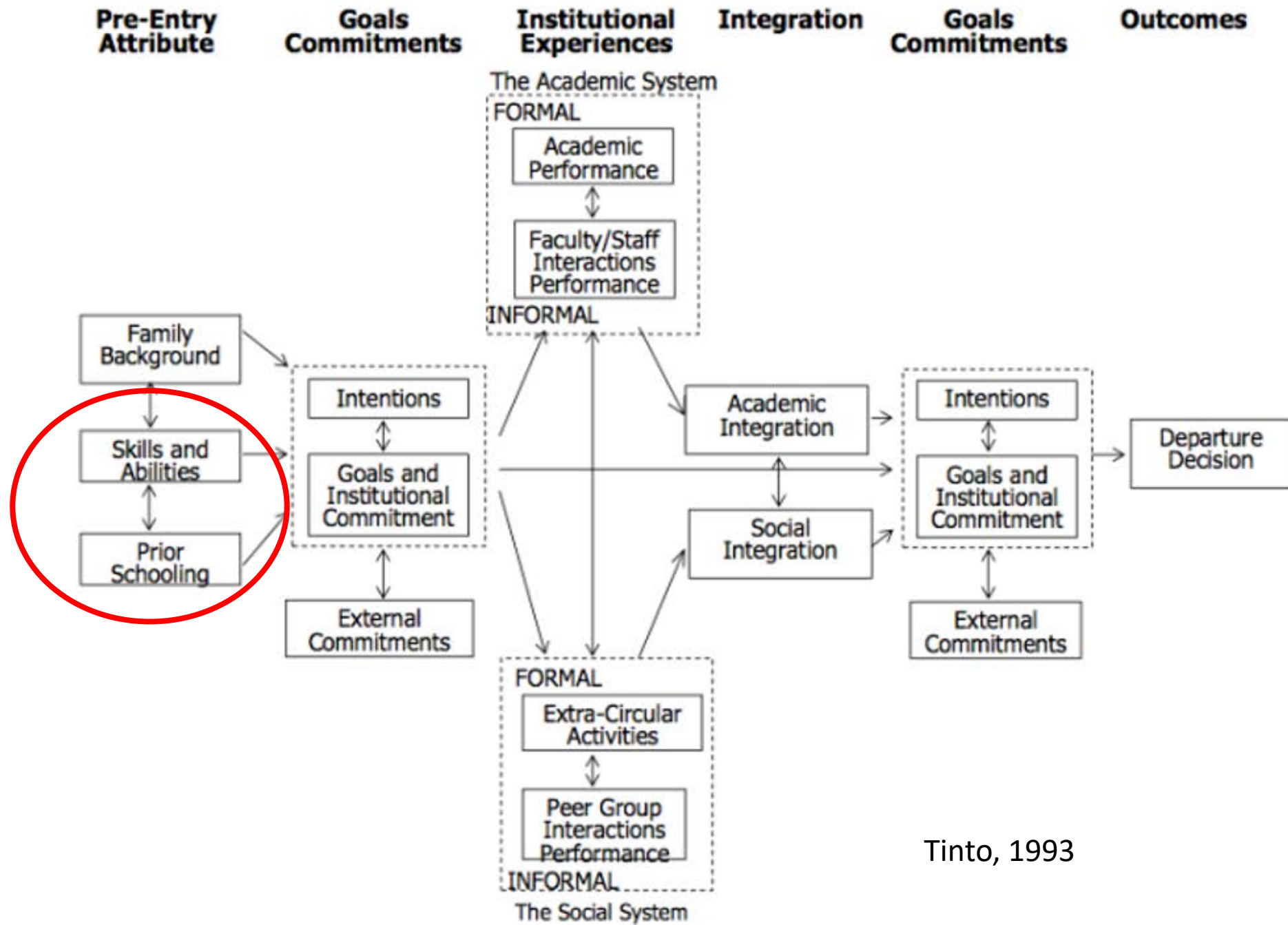


Finish  
in 4



FOUR-YEAR DEGREE GUARANTEE





Tinto, 1993

# Objectives

- Describe composite ACT (CACT), high school GPA (HSGPA), and four-year graduation trends for FTFSF entering AFLS from 1998 to 2012;
- Determine the extent to which year of entry and student pre-entry characteristics (HSGPA and CACT) can predict four-year graduation for FTFSF entering AFLS from 1998 to 2012.

# Methods

- Population: All FTFSF entering AFLS from fall 1998 to fall 2012 ( $N = 2755$ )
- IRB approval; data obtained from Office of Institutional Research
- SAS 9.4 – Descriptive statistics and logistic regression
  - Graduates vs. non-graduates
    - HSGPA and CACT converted to z scores

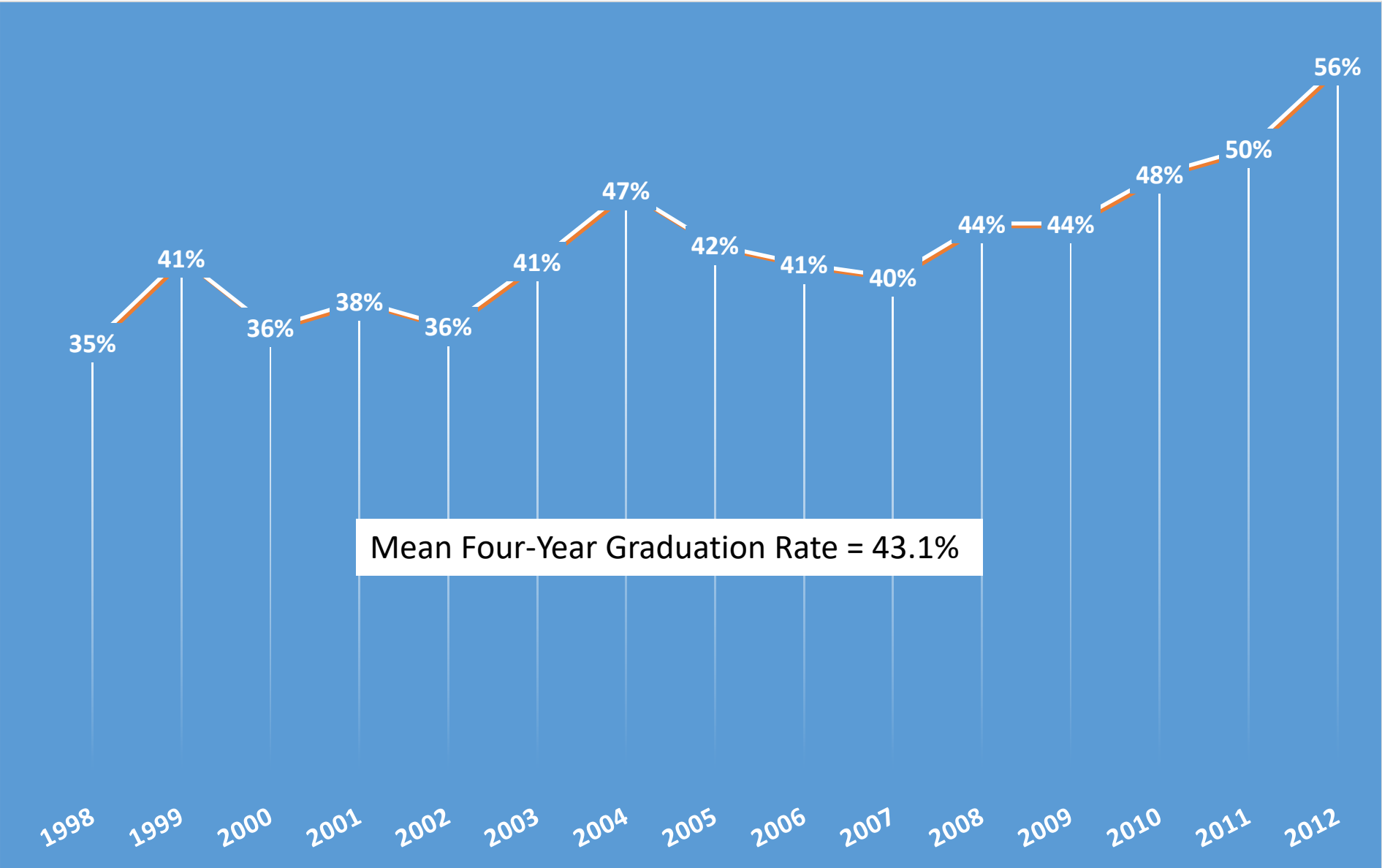


Office of Institutional Research and Assessment

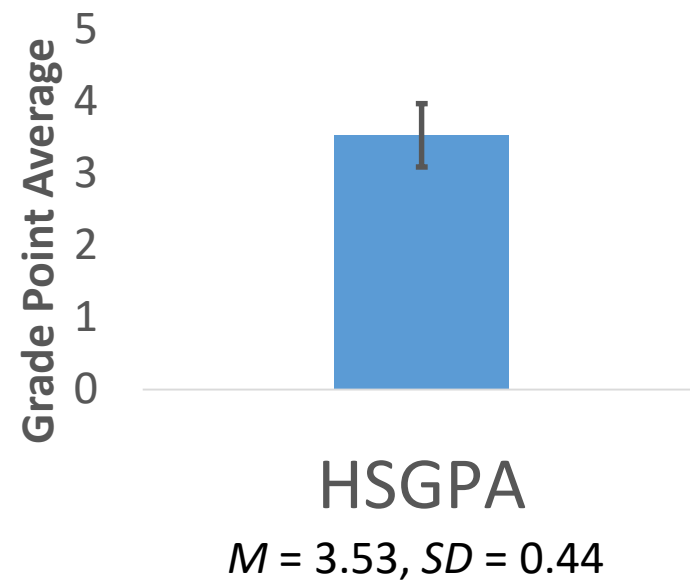
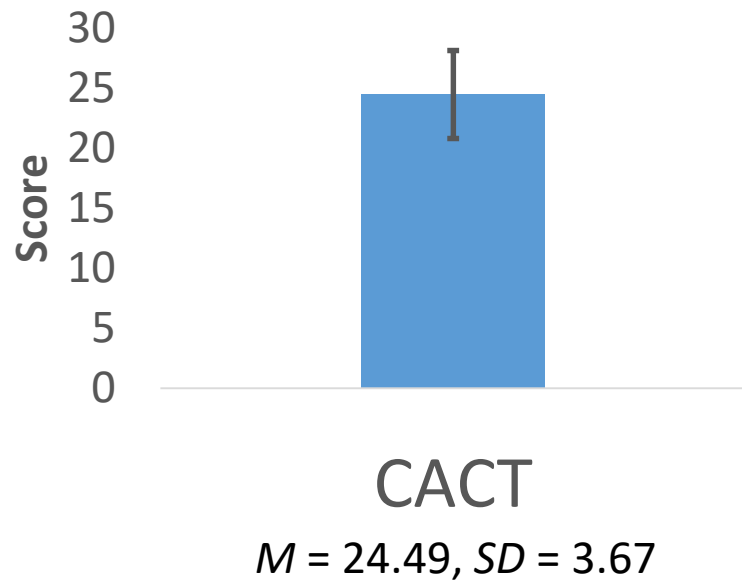
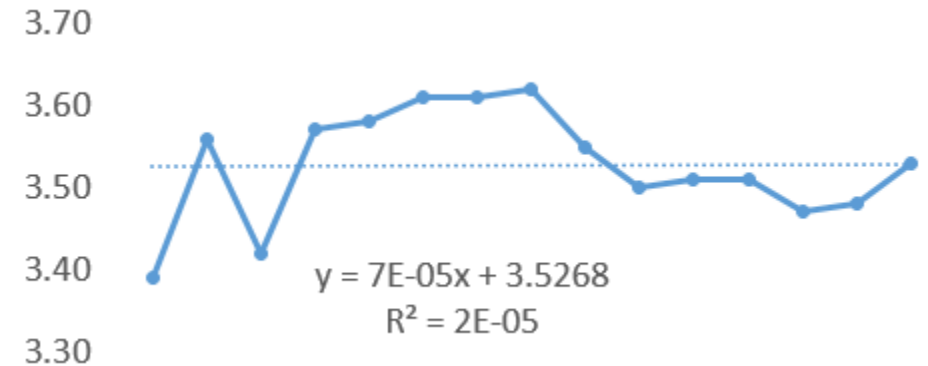
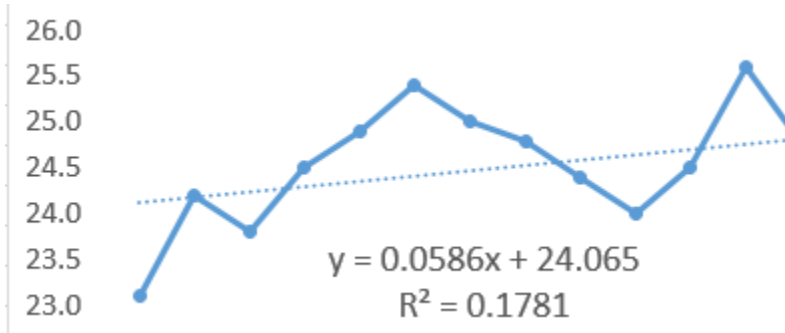
# Results



# Four-Year Graduation Rates, 1998 – 2012 Cohorts



# Mean CACT Score and HSGPA, 1998-2012 and Overall





# Logistic Regression Results

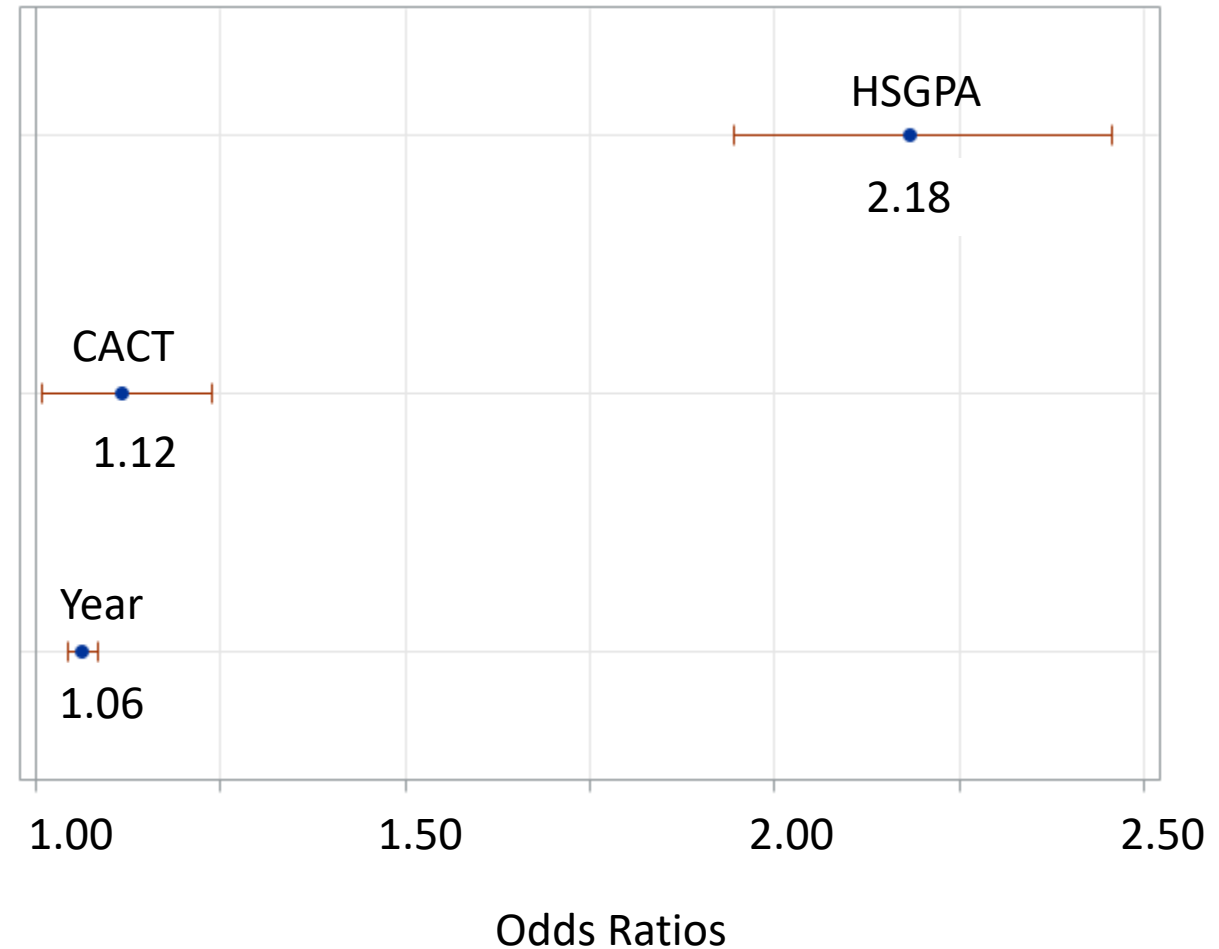
	<i>df</i>	<i>B (SE)</i>	$\chi^2$	<i>p</i>
Intercept	1	-0.86 (0.10)	79.51	<.001
HSGPA	1	0.78 (0.06)	172.52	<.001
CACT	1	0.11 (0.05)	4.57	.032
Year	1	0.06 (0.01)	39.96	<.001

Wald  $\chi^2$  (3) = 319.62,  $p$  < .001;

## Association of Predicted and Actual Outcome

- Concordant pairs = 71.1%
- Discordant pairs = 28.6%
- Tied pairs = 0.3%

(Total pairs = 1534 non-grads x 1193 grads = 1,830,062)



# Conclusions and Recommendations

- The relative odds of FTFSF graduating in four years increased by:
  - 118% for each SD (0.44) increase in **HSGPA**
  - 12% for each SD (3.67) increase in **CACT**
  - 6% for each subsequent **year** of entry

Recruit high-GPA freshmen

Use results to identify and provide services to lower-HSGPA students

Focus more on HSGPA and less on CACT

Incremental improvement is occurring

# Conclusions and Recommendations

- Pre-entry academic variables produced relatively robust prediction of four-year graduation for FTFSF in AFLS

Further research is needed to identify additional predictors of four-year graduation

# Thank You!

