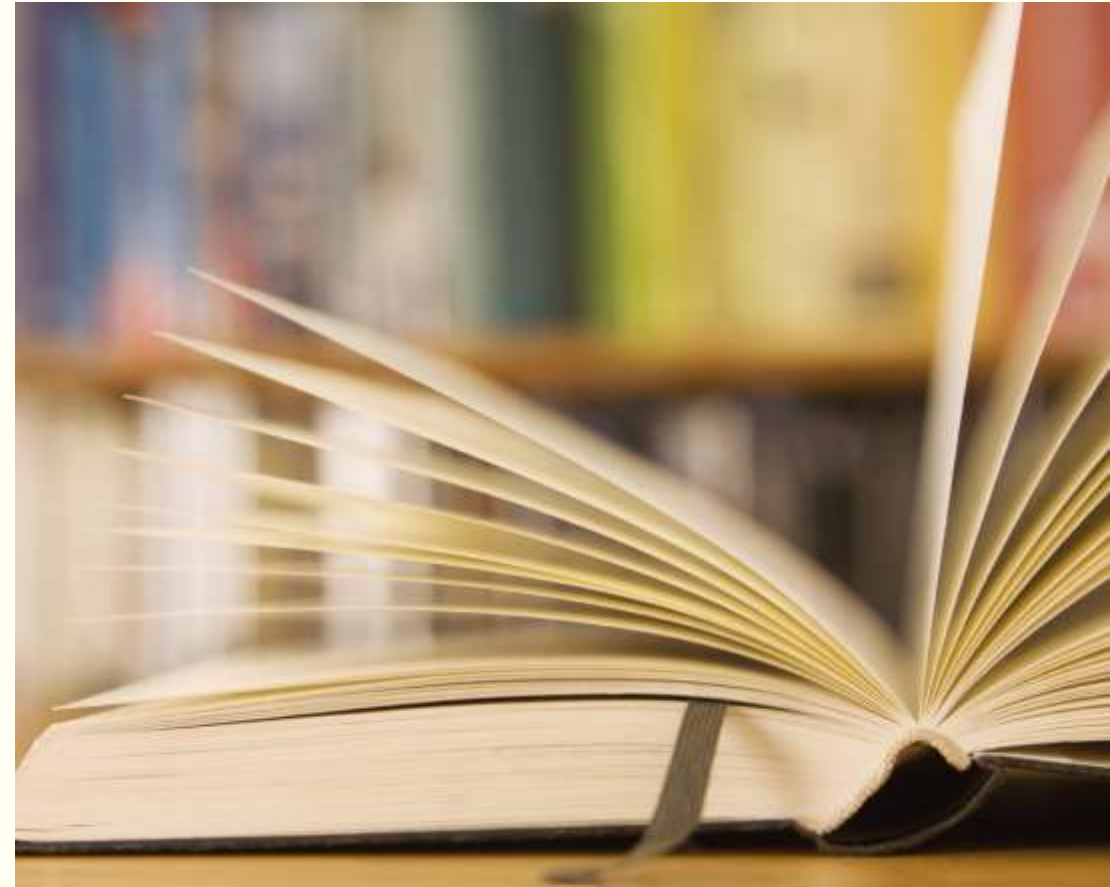




**BELONGING AND ENGAGEMENT:  
PREDICTING ACADEMIC SUCCESS  
ACROSS STAGES OF TRANSFER STUDENT  
TRANSITION**

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# INTRODUCTION

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- Engagement is a critical component for college student success (Astin, 1993; Pascarella & Terenzini, 2005).
  - Can result in higher grades, feelings of satisfaction, increased self-esteem, teamwork and collaboration, and responsibility and accountability in learning (Kuh, 2001).
  - More likely to be motivated toward learning and students engaged in learning activities are more likely to persist (Duncan & McKeachie, 2005; Pintrich, 2004).

## PROBLEM

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- It is less clear how engagement impacts transfer or non-traditional students.
  - Some have questioned the applicability of engagement to non-traditional or historically underrepresented student populations (Harper & Quaye, 2008).
  - Transfer students may have work, life, and other family commitments.

## PROBLEM

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- Some have theorized that a students' proclivity to become engaged on a college campus is predicated on their sense of belonging at the institution (Strange & Banning, 2001).
  - Transfer students do not always feel comfortable at new institutions (Hurtado, & Carter, 1997; Kirk-Kuwaye & Kirk-Kuwaye, 2007)
  - Transfer student may experience a lowered sense of well-being, academic enjoyment, and motivation (Zepke & Leach, 2010)

## PURPOSE

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The purpose of this study was to examine the relationship between indicators of college student engagement and university attachment/belonging with transfer student academic success (GPA and Academic Motivation).

## INSTITUTION SAMPLING

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- Four (4) institutions were purposefully selected
- An additional twenty (20) institutions were randomly selected and invited to participate.
- Seven (7) agreed to participate.

## PARTICIPANT SAMPLING

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- Some institutions chose to identify a random sample while others chose to distribute our survey to all students.
- A total of 940 of those students invited to participate responded to our request.
- The final sample include 837 responses from participants identifying as transfer students.



# STUDY SAMPLE

Institution	Institution Size	Level	Control	Carnegie	Profile	Sample Size
Bemidji State University & Northwest Technical College	5,175	4-yr	Public	Masters	Higher Transfer-in	145
Texas Christian University	8,853	4-yr	Private	Doctoral/ Research	Lower Transfer-in	69
The University of Southern Mississippi	15,300	4-yr	Public	Research (high research)	Higher Transfer-in	136
University of North Carolina at Chapel Hill	28,916	4-yr	Public	Research (very high research)	Low Transfer-in	91
University of Tennessee	29,934	4-yr	Public	Research (very high research)	Higher Transfer-in	52
Western Illinois University	12,679	4-yr	Public	Masters	Higher Transfer-in	344
<b>Total</b>	<b>102,392</b>	--	--	--		<b>837</b>

## MEASURES

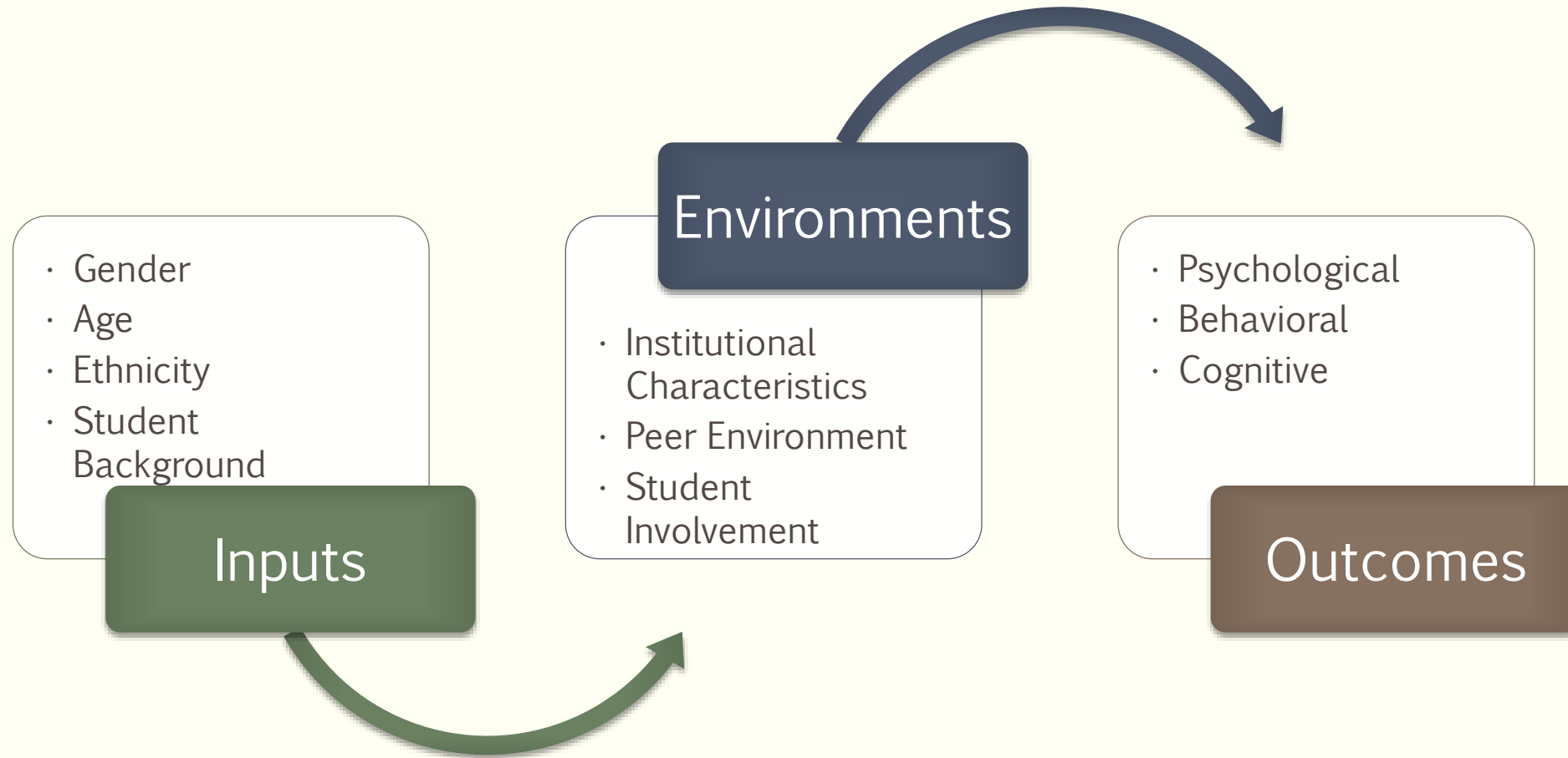
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- National Survey of Student Engagement (Pascarella & Terenzini, 2005)
- University Attachment Scale (France, Finney, & Swerdzewski, 2010)
- Academic Motivation Scale (Pascarella, E. T., & colleagues, 2007)

# CONCEPTUAL MODEL

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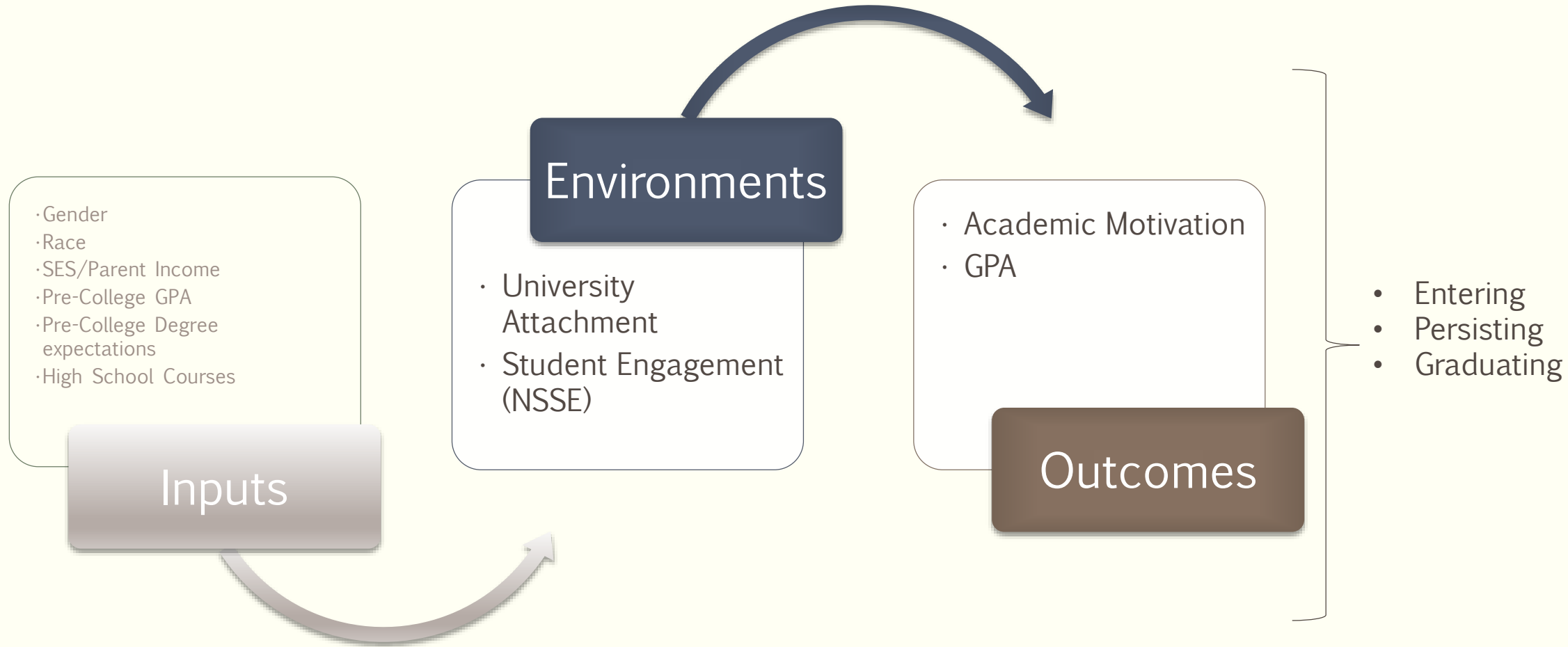


Astin's (1993) Input-Environment-Outcomes (I-E-O) Model

# CONCEPTUAL MODEL

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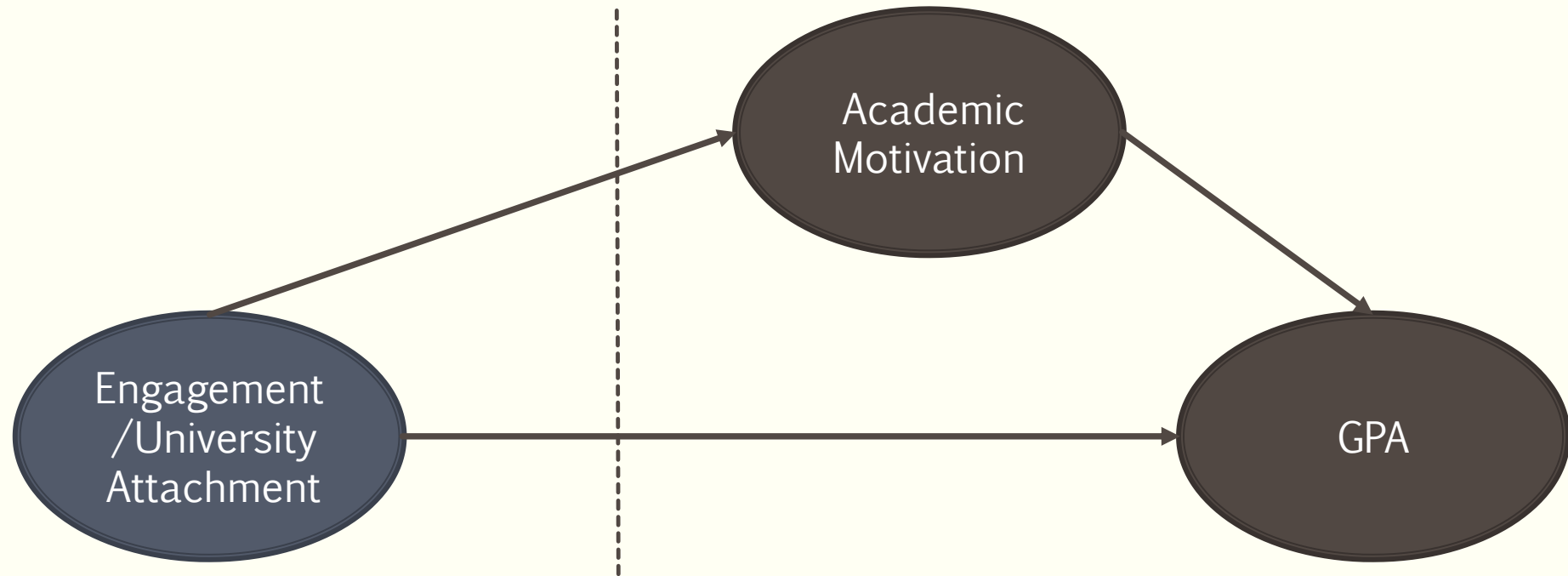
# CONCEPTUAL MODEL

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Environments

Academic Outcomes



## TRANSFER STUDENTS

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- We defined a transfer student as any student who began college at another institution.
  - Entering – Students with  $< 30$  credit hours at the institution
  - Persisting – Students with less than 90 credit hours at the institution
  - Graduating – Students with  $> 90$  credit hours or Seniors with  $> 45$  credit hours at the institution.

# TRANSFER STUDENT DEMOGRAPHICS

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	Freshman	Sophomore	Junior	Senior	Unclassified	Total
Entering	17	71	210	47	14	359
Persisting	1	36	117	77	13	244
Graduating	0	0	4	185	7	196
<b>Total</b>	<b>18</b>	<b>107</b>	<b>331</b>	<b>309</b>	<b>34</b>	<b>799</b>

# DEMOGRAPHICS

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- 35% Male, 65% Female
- 1% Native American, 2% Bi-racial, 4% Asian American, 6% Latino(a), 7% African American, 80% Caucasian
- 34% did not work
- 34% worked more than 20 hours per week (8% > 40hrs)
- 28% were living with a domestic partner
- 7% were a current or active member of the armed services
- The average age of students was 26 years old (SD = 8.60)
- The average GPA was 3.24 (SD = .67)



## 2013-14 NSSE DATA COMPARISON

NSSE Benchmarks (2000-2012)	NSSE Engagement Indicator	NSSE Means		Current Study Means	
		Freshman	Senior	Freshman	Senior
Academic Challenge	Reflective & Integrative Learning	35.60 (12.70)	38.90 (13.00)	34.44 (10.66)	40.67 (12.43)
	Learning Strategies	39.40 (14.20)	40.20 (14.80)	40.00 (12.73)	38.04 (14.97)
	Quantitative Reasoning	27.40 (16.50)	30.10 (17.40)	24.81 (15.97)	30.09 (15.86)
Learning with Peers	Collaborative Learning	32.40 (14.40)	32.20 (14.40)	28.61 (16.16)	35.04 (14.09)
	Discussions with Diverse Others	40.90 (16.00)	41.90 (16.10)	38.89 (13.88)	41.54 (15.14)
Experiences with Faculty	Student-Faculty Interaction	20.50 (14.70)	24.50 (16.40)	13.61 (11.22)	23.41 (16.59)
	Effective Teaching Practices	40.10 (13.30)	40.90 (13.70)	44.00 (16.69)	41.28 (12.93)
Campus Environment	Quality of Interactions	41.40 (12.50)	42.30 (11.90)	37.47 (13.38)	39.28 (12.72)
	Supportive Campus Environment	37.40 (13.80)	33.60 (14.40)	36.50 (16.81)	30.82 (13.62)

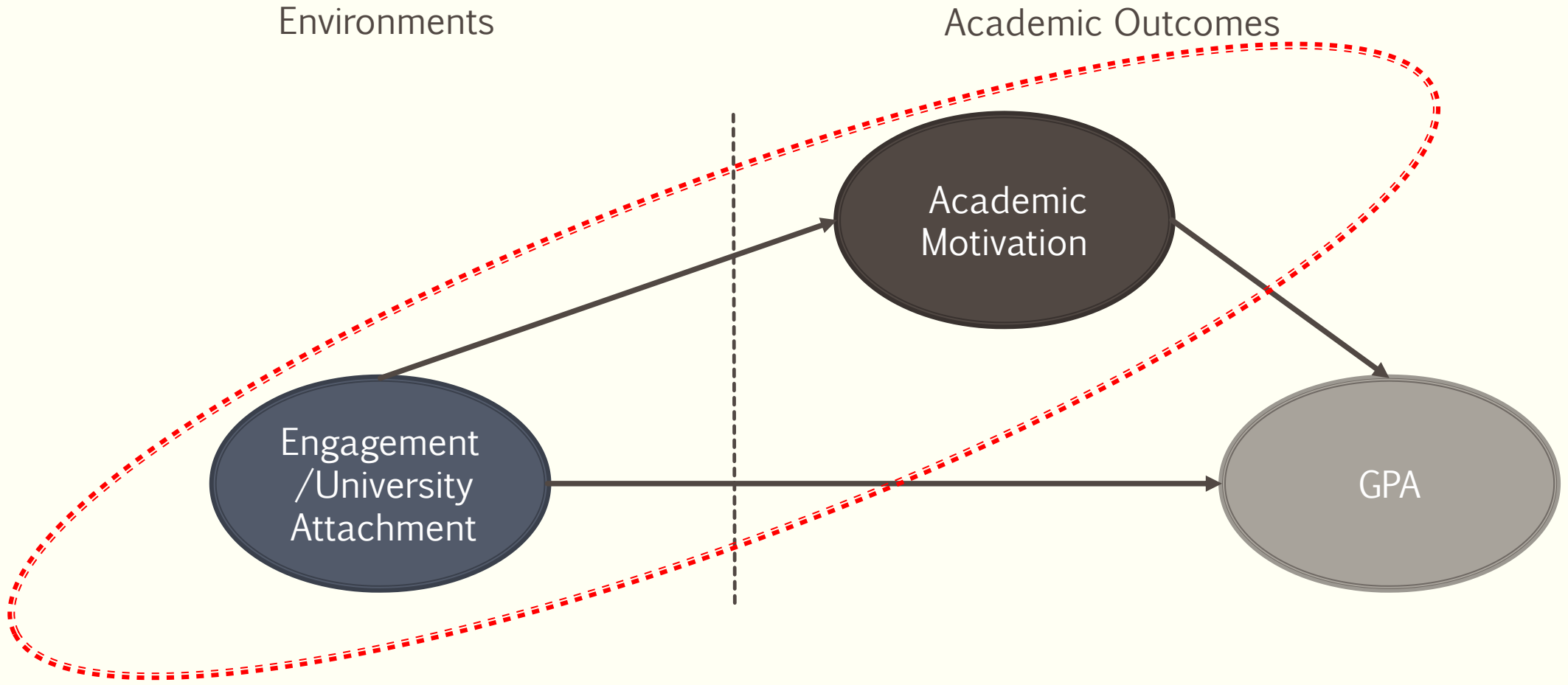
# MEAN AND RELIABILITY ESTIMATES

NSSE Benchmarks (2000-2012)	NSSE Engagement Indicator	Entering		Persisting		Graduating	
		$\alpha$	M	$\alpha$	M	$\alpha$	M
Academic Challenge	Reflective & Integrative Learning	.84	36.71	.83	39.49	.87	41.46
	Learning Strategies	.80	37.39	.76	37.41	.79	39.32
	Quantitative Reasoning	.84	26.04	.82	28.84	.85	31.98
Learning with Peers	Collaborative Learning	.78	32.17	.75	35.78	.76	37.39
	Discussions with Diverse Others	.90	40.00	.89	41.27	.87	43.40
Experiences with Faculty	Student-Faculty Interaction	.82	18.06	.84	22.00	.85	26.22
	Effective Teaching Practices	.84	40.59	.89	39.54	.86	41.99
Campus Environment	Quality of Interactions	.81	38.68	.80	38.51	.78	39.03
	Supportive Campus Environment	.88	31.55	.87	32.34	.87	30.56
University Attachment	Group Attachment	.81	3.20	.80	3.22	.87	3.13
	Member Attachment	.73	2.42	.75	2.62	.70	2.75
	Total N	360		245		197	

# CONCEPTUAL MODEL

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# PREDICTING ACADEMIC MOTIVATION

NSSE Benchmarks (2000-2012)	NSSE Engagement Indicator	Entering		Persisting		Graduating	
		$\beta$	$p$	$\beta$	$p$	$\beta$	$p$
Academic Challenge	Reflective & Integrative Learning	0.21	<.001	.057	.442	.032	.712
	Learning Strategies	0.23	<.001	.213	.002	.346	.000
	Quantitative Reasoning	0.12	.029	.080	.243	.069	.383
Learning with Peers	Collaborative Learning	-0.05	.343	.039	.579	-.022	.788
	Discussions with Diverse Others	-0.13	.010	.061	.369	.004	.954
Experiences with Faculty	Student-Faculty Interaction	0.11	.040	.105	.144	.041	.626
	Effective Teaching Practices	0.06	.216	.196	.006	-.009	.903
Campus Environment	Quality of Interactions	0.18	<.001	.193	.004	.106	.178
	Supportive Campus Environment	0.10	.062	-.147	.045	.218	.008
University Attachment	Group Attachment	0.15	.008	.034	.669	.080	.390
	Member Attachment	-0.12	.042	-.077	.327	-.077	.429
	F Statistics	17.06	< .01	8.34	< .01	6.82	< .01
	Model $R^2$	.365		.296		.300	

# GROUP MEAN DIFFERENCES

	INDICATOR	Entering	Persisting	Graduating	Difference (Entering: Graduating)
Academic Challenge	Reflective & Integrative Learning	<b>36.71</b>	39.49	41.46	12.94%
	Learning Strategies	<b>37.39</b>	<b>37.41</b>	<b>39.32</b>	5.16%
	Quantitative Reasoning	<b>26.04</b>	28.84	31.98	22.81%
Learning with Peers	Collaborative Learning	32.17	35.78	37.39	16.23%
	Discussions with Diverse Others	<b>40.00</b>	41.27	43.40	8.50%
Experiences with Faculty	Student-Faculty Interaction	<b>18.06</b>	22.00	26.22	45.18%
	Effective Teaching Practices	40.59	<b>39.54</b>	41.99	3.45%
Campus Environment	Quality of Interactions	<b>38.68</b>	<b>38.51</b>	39.03	0.90%
	Supportive Campus Environment	31.55	<b>32.34</b>	<b>30.56</b>	-3.14%
University Attachment	Group Attachment	<b>3.20</b>	3.22	3.13	-2.19%
	Member Attachment	<b>2.42</b>	2.62	2.75	13.64%
	F Statistics	17.06*	8.34*	6.82*	
	Model $R^2$	.365	.296	.300	

\*Statistically Significant at  $\alpha = .05$

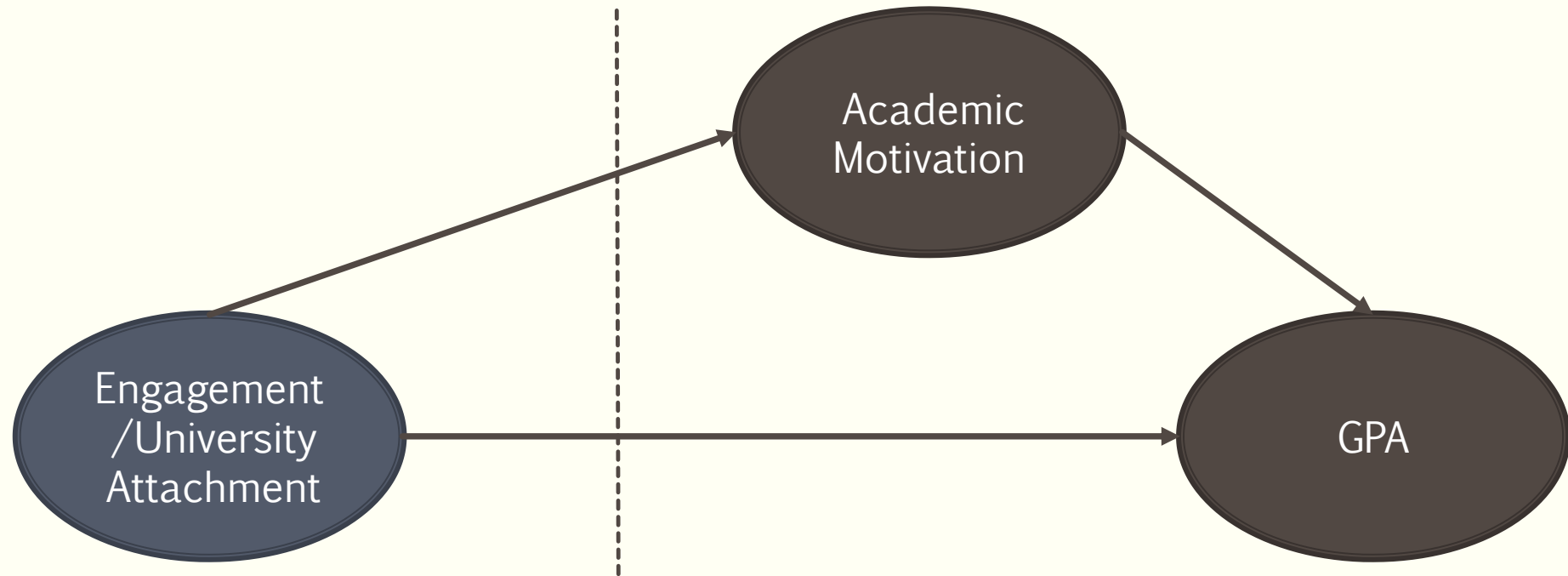
# CONCEPTUAL MODEL

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Environments

Academic Outcomes



# PREDICTING ACADEMIC GPA

*Hierarchical Regression Results from Indicators of Engagement and Motivation*

	Entering		Persisting		Graduating	
	<i>F</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>R</i> <sup>2</sup>	<i>F</i>	<i>R</i> <sup>2</sup>
Attachment/Engagement Indicators	0.576	.056	1.044	↑.050	1.505	↑.087
With Academic Motivation	0.536	<b>.061</b>	1.970	.099	2.476	.147
<i>R</i> <sup>2</sup> Δ		.004		↑.049		↑.088
<i>p.</i> Δ	..259		< .001		< .001	

## DISCUSSION

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- Engagement was a statistically significant predictor of GPA, specifically *Collaborative Learning*.
- *Academic motivation* was equally as valuable in predicting GPA.
- However, our data suggested transfer student self-reported GPA could only be predicted after 30 hrs or more at the institution.



# DISCUSSION

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- We could better explain differences in academic motivation.
  - Cumulative GPA may be confounded in having attended multiple institutions.
  - Some GPAs may/may not transfer
  - Transfer student GPA may be a better predicted after they remained at the institution for some period of time.

	Academic Motivation	GPA
Entering	36.5%	5.6%
Persisting	29.6%	9.9%
Graduating	30.0%	14.7%

## IMPLICATIONS

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- Engagement indicators are important in predicting academic outcomes for transfer students.
- However, the importance of specific indicators varies with duration at the institution.
  - Most engagement indicators seemed to be more important as transfer students matriculate into a new institution.
  - *Learning Strategies* remain important throughout their career.
  - *Supportive Environment* seems to decline over time

## IMPLICATIONS

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- *Learning Strategies* focuses on a student's ability to:
  - identifying key information from reading assignments
  - summarizing key information from class or course materials.
- Transfer students may need additional study skills classes.
- It is not clear what NSSE high-impact practices would best address this benchmark indicator.
  - Participation in *Learning Communities* may be a strategy but transfer students are less likely to participate in them (National Survey of Student Engagement, 2007)

## IMPLICATIONS

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- The decline in Supportive Environment scores for transfer students is greater than NSSE national norms.
  - Over 50% of students at four-year institutions report beginning their college experience at a different institution (McCormick, Sarraf, BrckaLorenz, & Haywood, 2009).
  - There seems to be a disconnect between the support colleges and universities think they are offering and student perceptions.

## IMPLICATIONS

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- Peer to peer learning engagement indicators were not predictive of academic outcomes in this study.
  - Perhaps other work-life commitments minimize the need or importance of this type of engagement.

## IMPLICATIONS

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- The largest group differences between entering and graduating transfers were on the *student-faculty interaction* indicator.
  - Transfer students entered the institution with lower student-faculty interaction scores (13.61) compared to NSSE Freshman data nationally (20.50).
  - These scores were more comparable by their senior year but perhaps high impact practices such as research opportunities with a faculty member may need to be considered for students earlier in their college career.

## IMPLICATIONS

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- Attachment or a sense of belonging to the institution may be particularly important for entering transfer students.
  - Transfer students don't always feel a sense of belonging (Hurtado & Carter, 1997) and Kirk-Kuwaye and Kirk-Kuwaye, (2007)
  - Our data seem to support those scores were lower for entering transfer students.
  - High impact practices generally seem to be engagement centered rather than belonging centered. Perhaps we need to consider practices that better address a student's level of belonging.

## LIMITATIONS

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- Little guidance about what constitutes an entering, persisting, and graduating transfer student.
  - Our classification of these students may impact results.
- Not all institutions chose to distribute the survey in the same way.
  - Some institution samples may be more reflective of institutional demographics than others.



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