APPA Leadership in Educational Facilities

2018 Annual Conference and Exhibition
Washington, DC

Modernizing Infrastructure for Institutional Success

Linking Infrastructure and Retention in Theory and Practice

Colin M. Coyne, Ed.D., M.M.
Chief Strategy Officer, Samford University

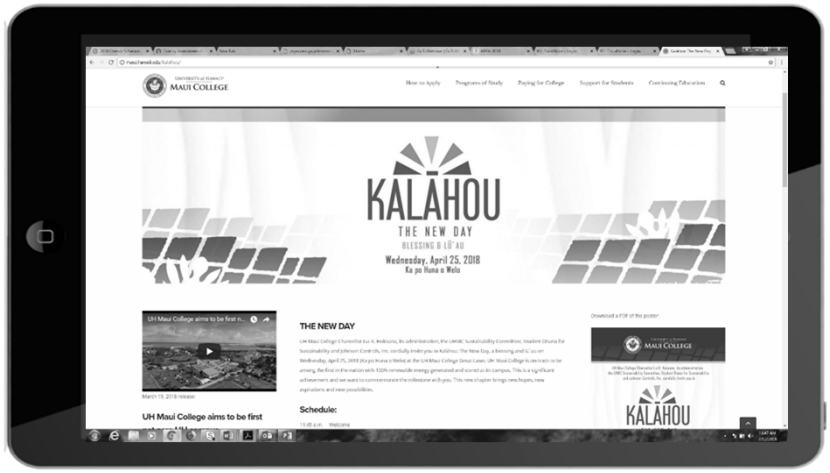
Russell Garcia, Ed.D., MBA
Director, Higher Education Performance Infrastructure, Johnson Controls Inc.

University of Hawaii

UNIVERSITY of HAWAIʻI SYSTEM
UNIVERSITY of HAWAIʻI COMMUNITY COLLEGES
UNIVERSITY of HAWAIʻI MAUI COLLEGE

2

UHCC video



3

STATE OF HAWAII – ENERGY POLICY DIRECTIVES

Hawaii state energy policy is rooted in one principle: a commitment to maximize the deployment of cost effective investments in clean energy production and management for the purpose of promoting Hawaii's energy security.

1. **Diversifying our energy portfolio.** Diversity has always been one of Hawaii's greatest assets. Our energy resources are no exception; we are blessed with diverse resources such as solar, wind, hydro, bioenergy, geothermal, and energy efficiency. Among these resources, geothermal holds particular promise as a clean and firm energy source that is also low-cost. Biofuels, another important resource, should be targeted primarily for jet fuel, and used in electric generation only as a transitional use.

2. **Connecting and modernizing our grids.** Hawaii is connected in many ways that make us stronger. Linking the islands enables us to utilize our islands' best resources, at a scale that will reduce costs. Levelizing electricity rates across connected islands will not only lower rates on neighbor islands, but may also improve overall system efficiency. Since existing technical analyses show that Oahu lacks resources and sites to economically move beyond 25-30% renewable energy on its own, investing in undersea cable infrastructure is the pathway to an energy future that breaks our addiction to fossil fuels. The State Administration is determined to achieve its goal of 100 percent renewable energy generation by 2045. Maximizing affordable clean energy is a core strategic goal, and provides the most secure foundation for our economy and way of life.

3. **Balancing technical, economic, environmental, and cultural considerations.** Most renewable energy sources are less expensive than oil, but to integrate these resources we often need to blaze new pathways both in technology and policy. Not all clean energy projects are created equal. In order to find the most beneficial long-term solutions, we must focus on projects that make the best use of land and resources. We are collaborating with partners in the public and private sectors to focus on the most beneficial projects, ensuring that challenges are met with a spirit of collaborative problem solving, not inaction.

4. **Leveraging our position as an innovation test bed.** Hawaii should not only demonstrate the future of clean energy, but should also help invent it. Our isolated, islanded grids, high energy costs, and connections to the Asia Pacific region make Hawaii an ideal test bed for new energy solutions. We're working to create an environment where our communities support innovative companies that are solving the world's toughest energy challenges – and creating new jobs and opportunities for investment for a knowledge-based economy right here in Hawaii. Innovation is the cornerstone of our economic diversification strategy.

5. **Promoting an efficient marketplace that benefits producers and consumers.** An efficient marketplace is one where producers are motivated to provide a product or service and consumers are well-informed to make sound decisions. To achieve this we will support producers that want to develop innovative and cost-effective ways to provide energy to our residents. We also will encourage efforts that give consumers the tools to make informed decisions for their energy needs.

4

Sustainable Life & Practice (SLP)

Learning from the sustainable life & practices of Hawaii

Picture: Hokule'a, Polynesian Voyaging Society

Cost of Waiting

$173,671 per month

$5,609 per day

Amounts paid towards utilities
to be re-directed to
Facility improvements
at Maui campus
+ all 4 Oahu campuses

5

Advancing toward 100 percent renewable energy

By 2019, the University of Hawai'i (UH) Maui College will be capable of producing as much energy as it consumes. A total of five UH Community College campuses will cut their fossil fuel energy consumption by the following:

100%	98%	97%	74%	70%
MAUI CAMPUS	LEEWARD CAMPUS	HONOLULU CAMPUS	KAPʻOLANI CAMPUS	WINDWARD CAMPUS

Here's how UH is partnering with Johnson Controls to increase energy resiliency and self-sufficiency.

Energy Performance Contract
More than $79 million in savings over 20 years, guaranteed

Solar + Storage
On-site capacity: 2.8 MW of solar PV and 13.2 MWh of battery distributed energy storage at UH Maui College, and 7.7 MW of solar PV and 28.6 MWh of battery distributed energy storage at the O'ahu UH Community College campuses

Smart Controls
Automation to maximize comfort, control and reliability

LED Lighting
Interior upgrades at all campuses

HVAC Enhancements
Replace and upgrade chillers and related equipment

Other Enhancements
Window film installation and new interior transformers at all campuses

Deferred Maintenance
$20 million reduction across two phases, through efficiency projects and savings

Hands-On Learning
Furthers sustainability education

Johnson Controls building and energy solutions promote sustainability and growth for our customers and our world. See what we can do for your facility, enterprise and community at johnsoncontrols.com.

University of Hawai'i | Johnson Controls

6

UNIVERSITY of HAWAI'I®
MAUI COLLEGE

Phase 1: 2012

AC/ Thermal

Controls

Solar

2015:

Net Zero Legislation

Phase 2: 2017

LED lighting

Chiller Controls

Solar + Storage

98% energy reduction

7

Project Overview Phase 1 2012

Efficiency financing by bond

backed by Guaranteed Savings stream, 20 year Guarantee

Lighting, AC, Controls

Solar PPA Pricing

$0.03 less (12% less than Utility) 20 year term

Automation with Smart Controls

More comfort, control, & reliability for areas of campus touched by project

800kw Solar PV

Clean Solar Energy to the grid

8

Project Overview: Phase 2

University of Hawai'i Maui College

The Efficiency Numbers

$433K	30%	$2.1M	$10.2M
Guaranteed savings in first year	Additional Reduction in annual MECO utility consumption from efficiency measures	Dollar value of ECMs that also address deferred maintenance	Total Guaranteed Energy & Operational Savings over 20-year Performance Period

9

Sustainable Life & Practice (SLP)

Learning from the sustainable life & practices of Hawaii

Energy Savings + community benefits

Imported energy

Tanker arrives full of **foreign oil**

Tanker *departs* full of our **local cash**

*Most of Maui's electricity is generated from imported oil

Efficiency Project

- Creates jobs in our local economy
- Keeps dollars here
- Reduces foreign oil dependency
- Increases resiliency & self-sufficiency for Maui
- Opportunity to provide grid-services through storage
- See Phase 1

10

The Samford Story:
Lens 1 – Addressing The Short Term Infrastructure Challenge

11

12

13

Samford University 14

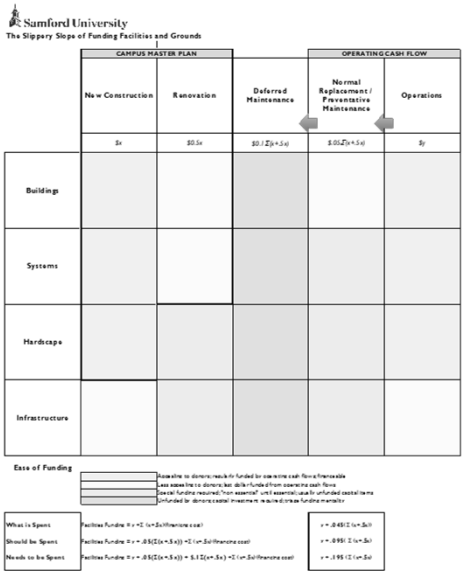
2016 Campus Infrastructure Improvement
Through Environmental and Financial Stewardship

Our campus will be better for it

SAMFORD UNIVERSITY

15

The Challenge
Riding the Slippery Slope of Deferred Maintenance



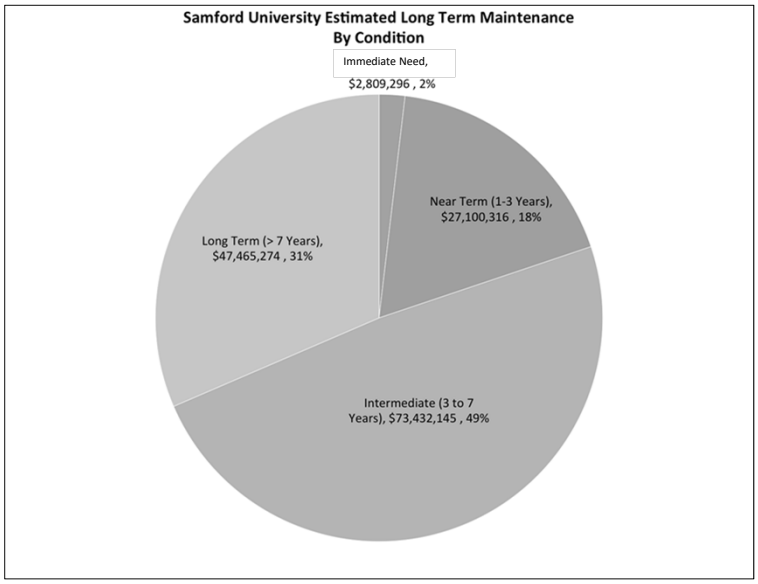
16

The Challenge
The Campus We Love needs some Love

- 60 years on Lakeshore Campus
- Aging Facilities
- Inefficient Equipment
- Failing Systems
- Competing Capital Investments
- Cash Flow Management
- Maintaining consistency with Values and Mission
- Adhering to our Strategic Plan

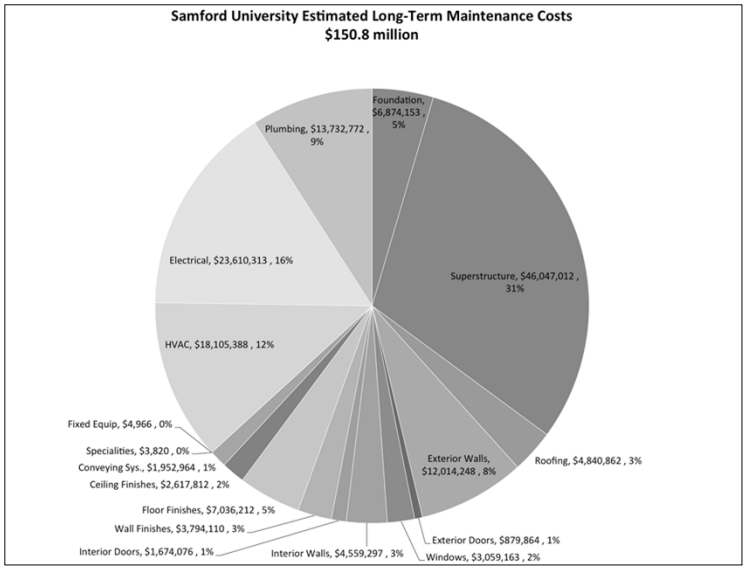
17

The Challenge
Campus Master Planning: Respecting the Past, Embracing the Future



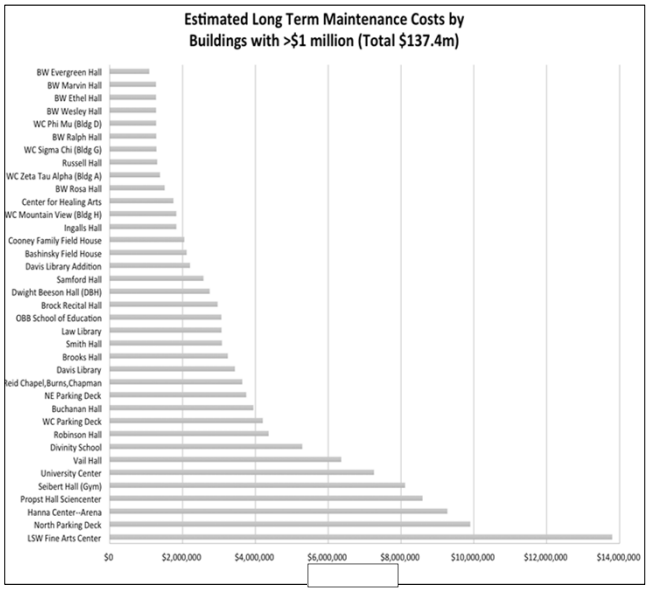
18

The Challenge
Campus Master Planning: Respecting the Past, Embracing the Future



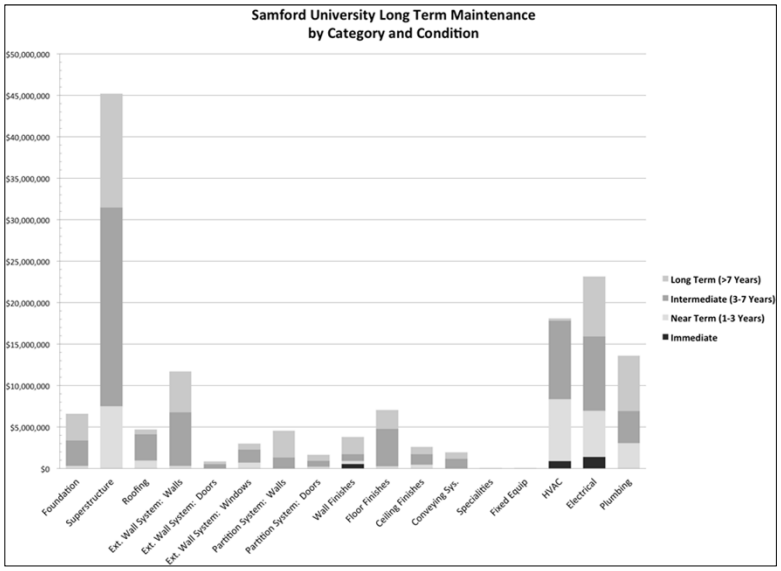
19

The Challenge
Campus Master Planning: A Need for Granularity



20

The Challenge
Chunking: Tasty Bite-sized Morsels



21

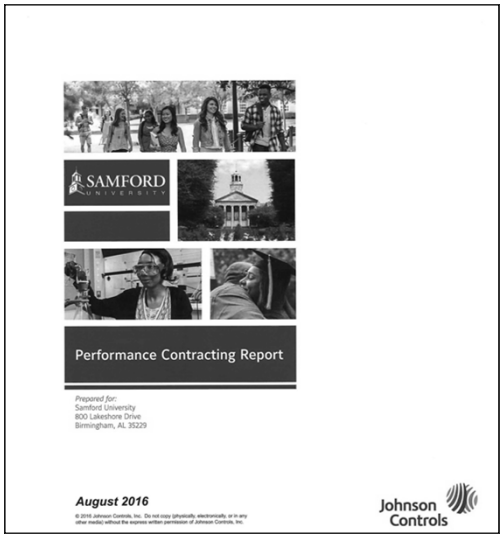
Execution or Executed?
Having the Right CPPC Partner

Johnson Controls

- Successful Three Year Relationship
- Fortune 100 firm (*Fiscal 2015 Revenues = $37.2 billion*)
- 1,300 locations
- 8,565 projects
- 137,145 employees
- 1,887 higher education partners
- Deep experience with ESPC's
- Values alignment
- $287,000 Performance Audit

22

Performance Contracting Report:
An exhaustive audit that establishes priorities *by ROI*



Energy Conservation Measures (ECM)

- ECM 1 - Lighting Upgrades
- ECM 2 - Domestic Water Conservation
- ECM 3 - Building Envelope
- ECM 4 - Window Replacements
- ECM 5 - Piping Insulation
- ECM 6 - Metasys® Upgrades
- ECM 7 - Controls and Mechanical Improvements
- ECM 8 - Chilled Water Plant Modernization
- ECM 9 - Natural Gas Rate Change
- ECM 10 - Heating Venting Air Conditioning (HVAC) Improvements
- ECM 13 - Electrical Improvements
- ECM 14 - Miscellaneous Mechanical Improvements
- ECM 15 - Domestic Hot Water Equipment Upgrades
- ECM 16 - Hot Water System Improvements

23

The Solution:
Contingent Payment Performance Contract ("CPPC")

- Replace failing systems; address inefficiencies
- Improvements lead to reduced operating costs (energy, water, labor)
- Savings are sufficient to pay for improvements within a 20 year period
- CPPC provider finances cost of improvements
- CPPC provider is repaid only if and as savings are realized
- Net result: no cash investment by Samford; cash flow neutral; long-term operating discipline is assured; benefits inure to Samford
- Samford has received exclusion from debt covenants for CPPC; if financed conventionally, would stress covenant restrictions

24

Structuring the Transaction:
Need Driven, Independent Verification

Necessary Improvements

Capital recovery payments equate to purchase price of improvements plus return to investor

Upgrades Generate Verifiable Energy, Operational and Water Savings

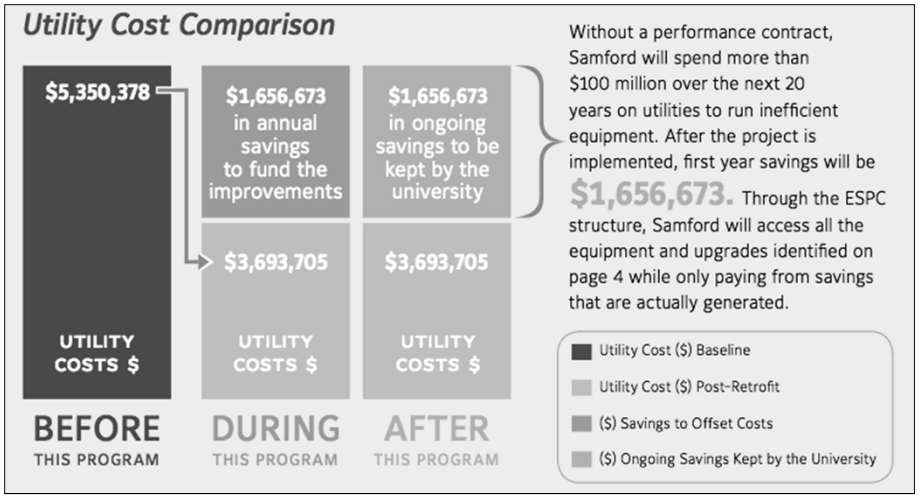
Guaranteed savings support investor's capital recovery payments

Savings are monetized, guaranteed and re-verified

25

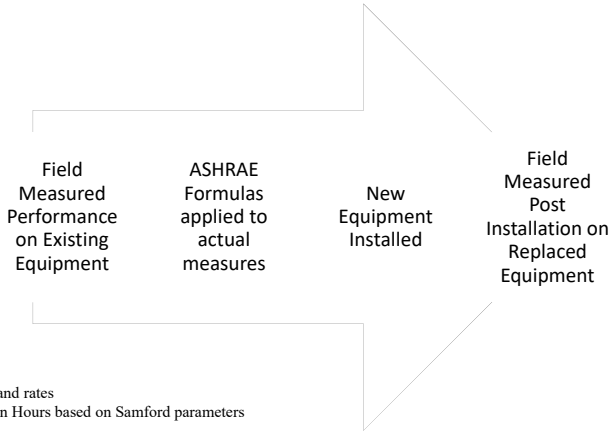
26

Redirected Energy Costs
We are spending the money either way



27

Structuring the Operational Transaction:
Legitimizing Energy, Water and Operational Savings: VERIFICATION

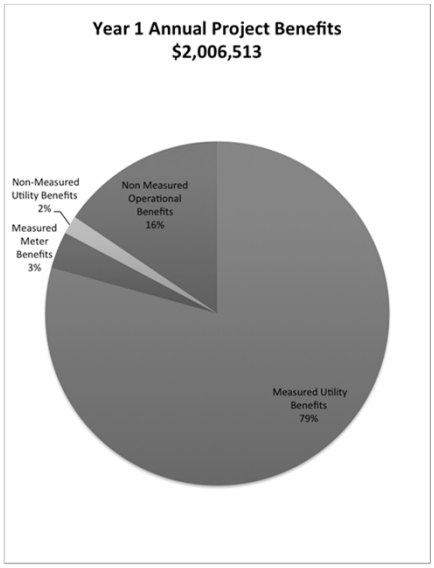


3 year historical use and rates
Temperature and Burn Hours based on Samford parameters

28

Structuring the Operational Transaction:
Legitimizing Energy, Water and Operational Savings: VERIFICATION

Performance Year	Utility Benefits	Meter Benefits	Utility Benefits	Operational Benefits	Annual Project Benefits
	MPB	MPB	NMPB	NMPB	MPB & NMPB
1	$1,590,769.65	$69,878.83	$34,430.22	$311,434.92	$2,006,513.62
2	$1,635,278.35	$71,975.19	$35,463.12	$320,777.97	$2,063,494.64
3	$1,681,058.03	$74,134.45	$36,527.02	$330,401.31	$2,122,120.80
4	$1,728,145.52	$76,358.48	$37,622.83	$340,313.35	$2,182,440.17
5	$1,776,578.75	$78,649.24	$38,751.51	$350,522.75	$2,244,502.24



29

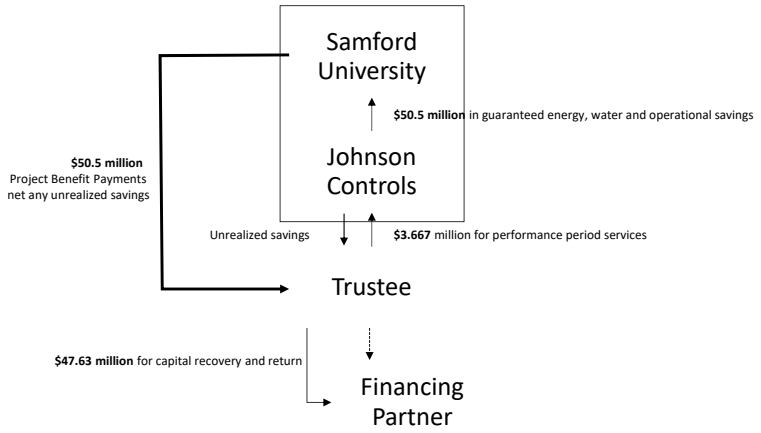
Structuring the Operational Transaction:
Legitimizing Energy, Water and Operational Savings: VERIFICATION

Non-Measured Utility Benefits	ECM	Year 1 Benefits	Escalation
The Non-Measured Project Benefits of ECM 2C and 2D are a result of irrigation water savings replaced with well water the sustainable flow rate of which could not be pre-established.	2C, 2D	$29,522	3%
The Non-Measured Project Benefits of 10A are a result of a minor energy savings associated with and efficiency improvement associated with the scope for work.	10A	$4,908	3%
Total Non-Measured Utility Benefits =		$34,430	

Non-Measured Operational Benefits	ECM	Year 1 Benefits	Escalation
The Non-Measured Project Benefits of ECM 1A, 1B and 1E are a result of material savings associated with the warranty covering replacement materials.	1A, 1B, 1E	$47,299	3%
The Non-Measured Project Benefits of ECM 2 are a result of material savings associated new materials and attic stock provided.	2	$3,646	3%
The Non-Measured Project Benefits of ECM 4 are a result of avoided contract costs associated with repainting existing wood windows	4	$161,358	3%
The Non-Measured Project Benefits of ECM 8 are a result of avoided service costs associated with the extended warranty covering the new chillers and chiller drives	8	$24,972	3%
The Non-Measured Project Benefits of ECM 10A are a result of avoided service costs associated rental spot cooling units.	10	$74,160	3%
Total Non-Measured Operational Benefits =		$311,435	

30

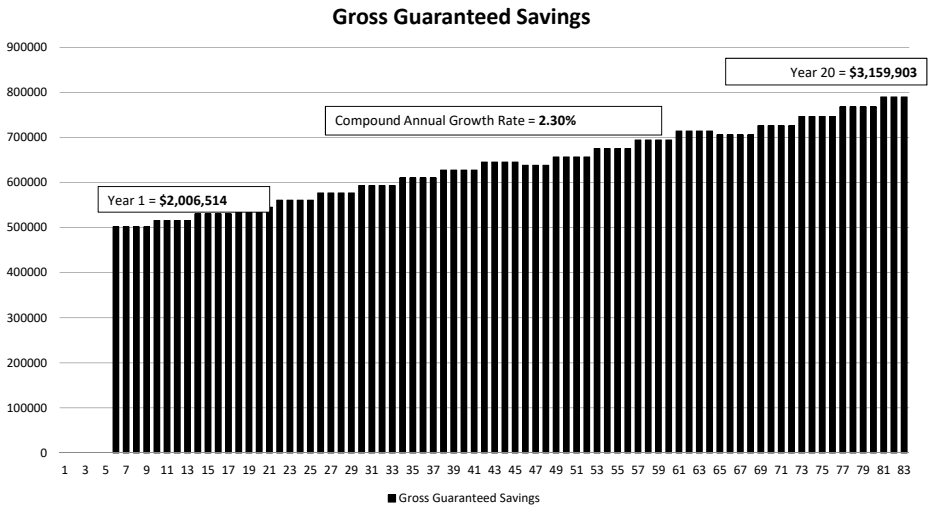
Structuring the Financial Transaction:
Cash Flow and Participants



Project Benefit Payments are fixed in advanced, paid quarterly, and adjust annually pursuant to Schedule 2-1.

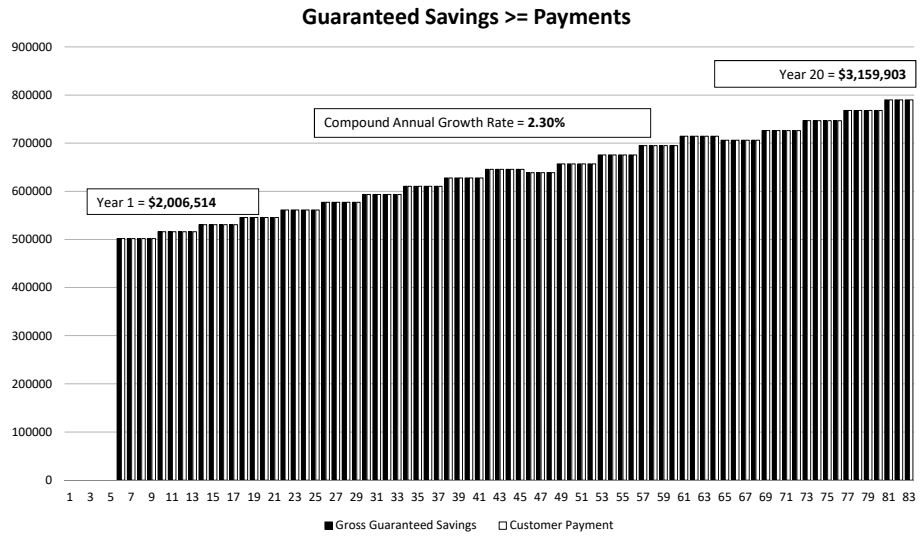
31

Structuring the Financial Transaction:
Charting Guaranteed Savings



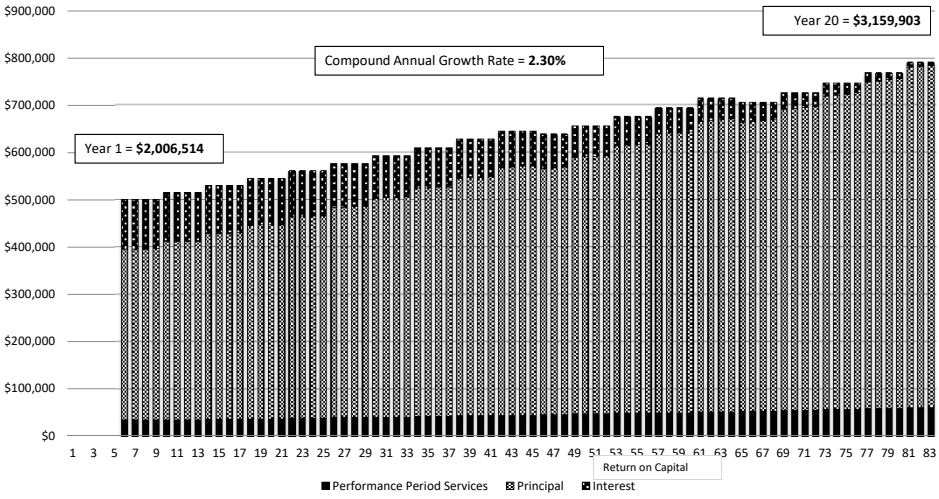
32

Structuring the Financial Transaction:
Guaranteed Savings Support Annual Debt Service Payments



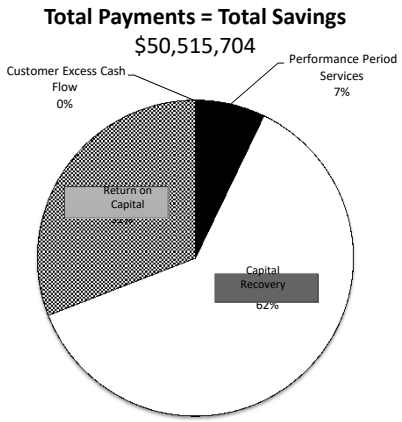
33

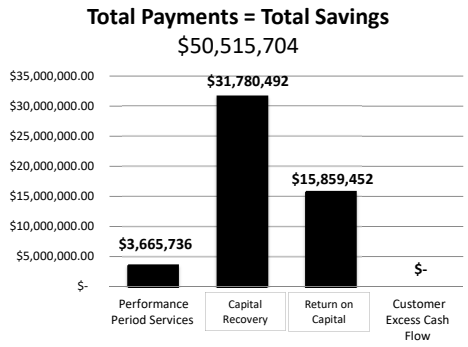
Structuring the Financial Transaction:
Reconciling Payment Breakdown to Implied Cost of Capital



34

Structuring the Financial Transaction:
Payments to Savings Reconciliation



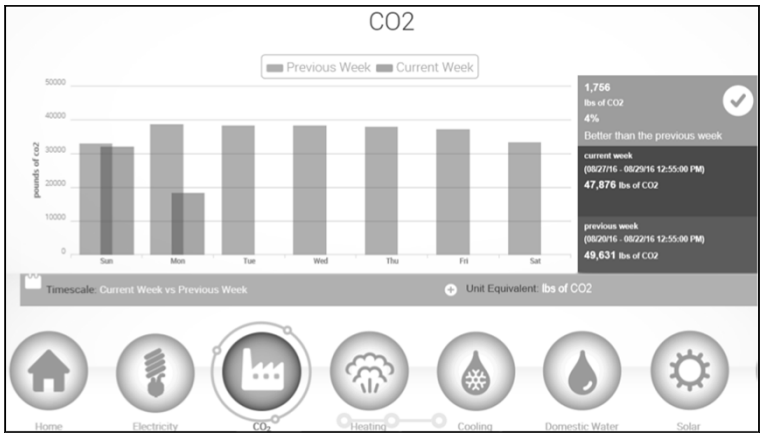


35

Turning Plans to Reality:
Implementation Timeline

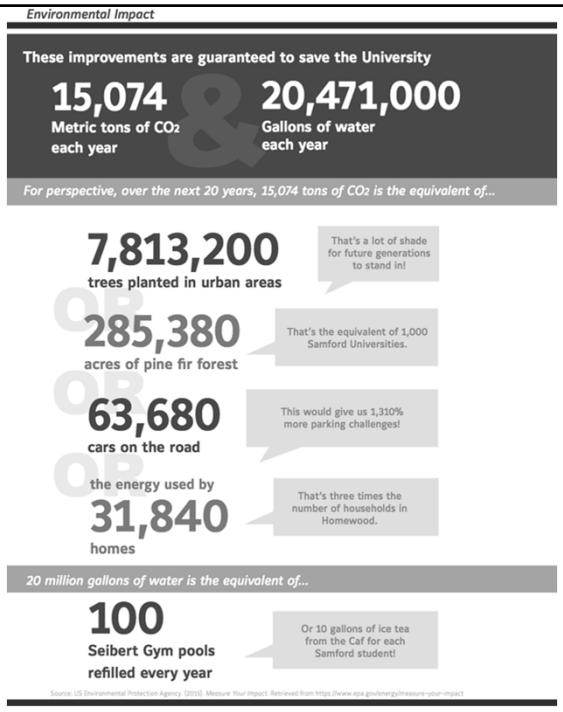
36

Internal Branding:
Increased Savings through Feedback – Process Improvements, Perceptual Gain



37

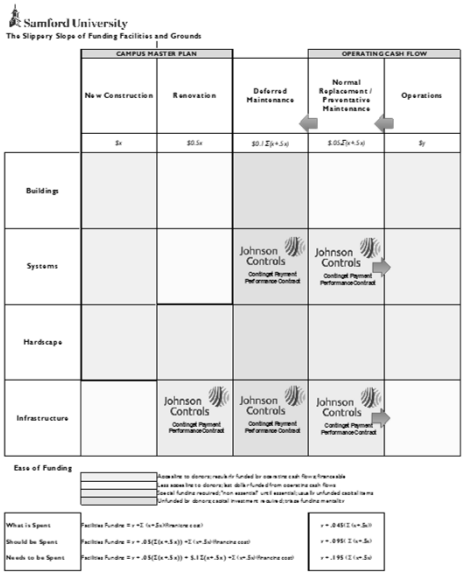
The Obligation of Stewardship
Taking on the Iron Triangle



38

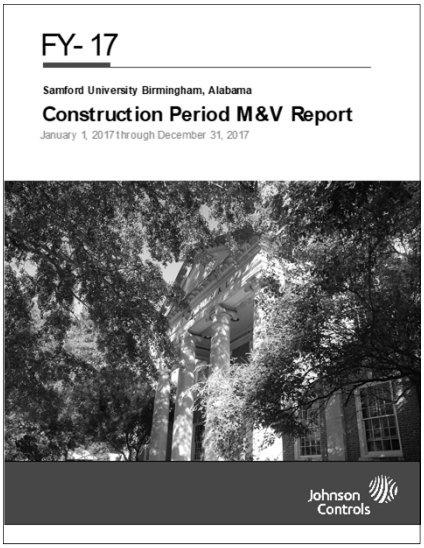
The Challenge

Riding the Slippery Slope of Deferred Maintenance



Results

"It ain't bragging if you've done it."



Results
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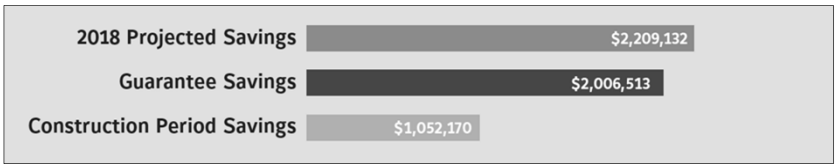
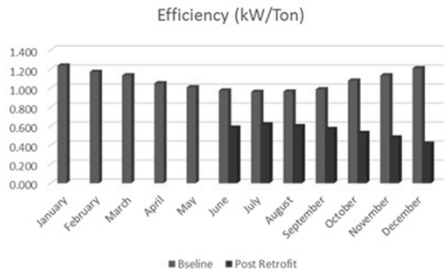


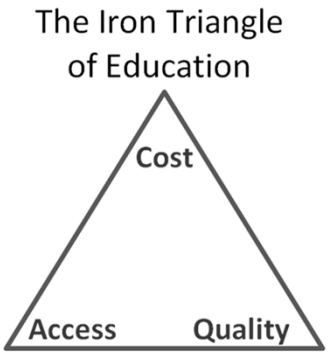


41

The Samford Story:
Lens 2 – Considering Long-Term Retention Patterns

42

False Choices:
Breaking the Iron Triangle



43

Principal or Purposeful Values:
The Meaning of Our Life

Value	Sample Definition
Achievement	*Career and personal accomplishments*
Adventurous	*Stimulating, challenging, and adventurous lifestyle*
Animal Protection	*Caring and protection of animals (endangered species, veterinary, etc.)*
Cultural and Artistic Appreciation and Expression	*Theatre, art, music, opera, etc.*
Enjoy Life / Pleasure	*Active, fun, enjoyable lifestyle*
Environmental Protection	*Protetion of the earth's natural resources*
Finanical Freedom	*Financial security, financial success*
Health and Energy	*Physical health and vitality*
Healthy Relationships	*Close and fulfilling relationships, true friendship*
Intelligence / Intellectual	*Well-studied, educated, knowledgeable*
Mature Love	*Deep, intimate connection and maturity*
Meaningful Life	*Making a difference in the world*
National Security	*Defense of one's country, way of life, and ideals*
Peace of Mind	*Inner harmony, at peace with one's self*
Personal Freedom	*Life free from inner fear and inner conflict*
Power / Control	*Ability to exert one's will to influence or drive outcomes*
Public Service	*Government work, ambassador, politics, United Nations, etc.*
Salvation / Enlightenment	*Being saved / spiritual enlightenment*
Scientific Pursuit	*Research and discovery*
Self-Acceptance	*Self-esteem, self-respect, self-worth*
Social Service	*Working for the welfare of others, serving humanity*
Wisdom	*Mature understanding of Life and Self*
Work-Life Balance	*Balancing quality time between career, personal time, and family*
Other	

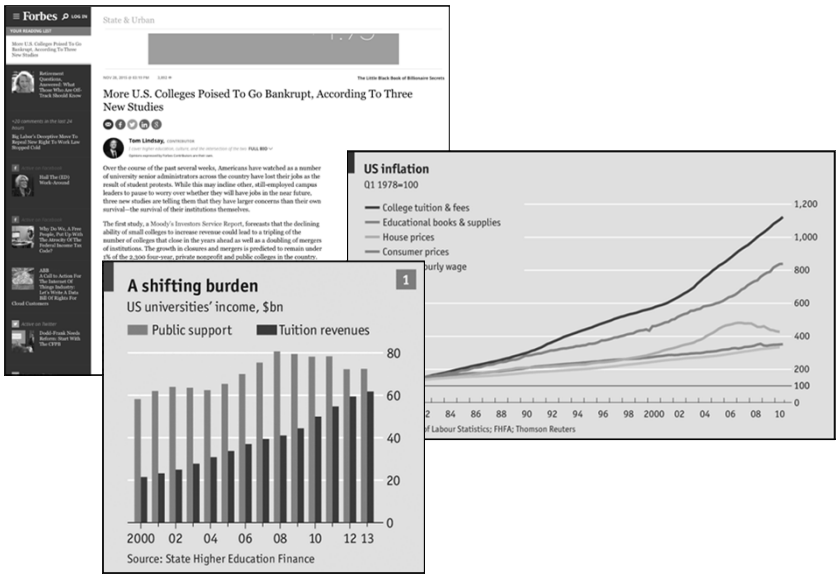
44

Supporting Values:
The Way We Live to Obtain our Principals

Value	Sample Definition
Ambitious and Aspiring	*Dedication, work ethic, hardworking*
Assertiveness	*Being proactive, having an impact*
Being True to Self	*Believing in one's self, following one's truth, and living accordingly*
Charitable Contribution	*Volunteering, supporting charitable organizations*
Competent	*Capable, efficient, knowledgeable*
Continuous Learning	*Academic pursuits, reading, seminars*
Courageous	*Standing up for your beliefs*
Disciplined	*Consistent, diligent, follow through on commitments*
Emotional Health	*releasing emotions for mental well-being*
Empathic / Caring	*Sensitive, supporting, accomodating needs of others*
Fairness	*Balanced judgement and decision making*
Forgiving	*Forgiveness of others and self*
Happiness	*Consistently having a positive mental state*
Honesty and Intetrity	*Honest with Self and Others*
Independent	*Self-sufficient, autonomous*
Innovative	*Imaginative, Creative, Inspiring*
Loyal	*Faithful and committed to self, family, others*
Nutritional Fitness	*Balanced diet, vitamins, etc.*
Objective	*Logical and rational*
Open-Minded	*Open to differing views and opinions*
Physical Fitness	*Exercising to promote healthy lifestyle*
Prayer / Meditation	*Connecting to a higher power*
Responsible	*Taking responsibility for your life's choices and their consequences*
Risk Taking	*Creating and accepting difficult challenges*
Sharing	*Open and forthcoming with others, intimate*
Taking Care of One's Self	*Relaxation, rejuvenation, nurturing, self-care*
Trustworthy	*Striving to achieve the trust of others*
Other	

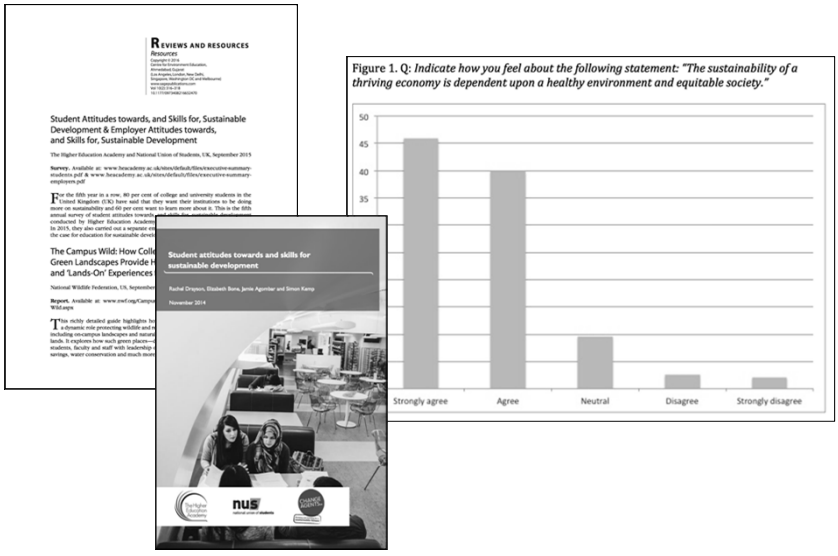
45

The Business Model:
Valuing Profit: No Money, No Mission



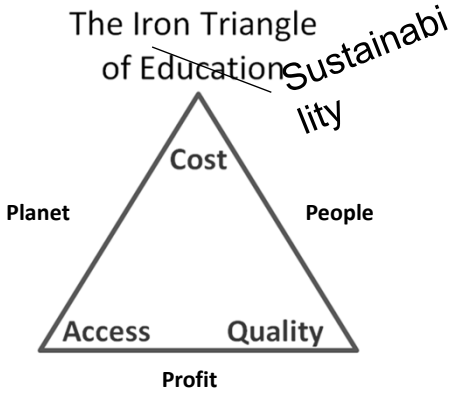
46

Subsumed Values:
We Don't Just Project, We Take On



47

False Choices:
Breaking the Iron Triangle



48

American Association of University Administrators
Donald A. Gatzke Outstanding Dissertation Award 2018

An Explanatory Model of First Year Retention:

Application and Adaptation of Braxton, Doyle, Hartley, Hirschy, Jones & McLendon's *Rethinking College Student Retention*

Colin M. Coyne, Ed.D., M.M.
Alexis J. Stokes, Ed.D., M.E.

Question 2:
Driving Retention

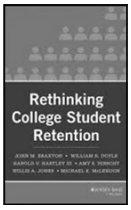
After **removing co-curricular** activities of any type, what factors most influence and/are most **predictive of first year to second year persistence**?

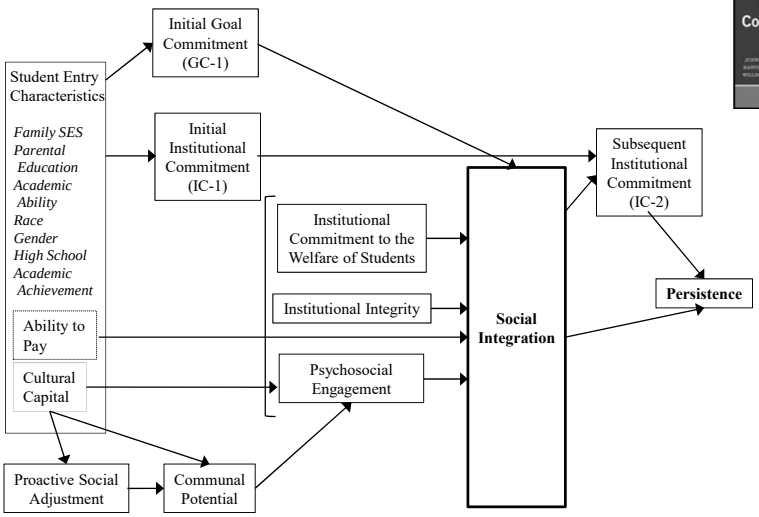
a) Specifically, what factors most **influence social integration**?

b) Specifically, what differences (if any) exist between **a Low Retention Institution and a High Retention Institution**?

51

Conceptual Framework for Study Questions
Braxton, et al. (2014): *Rethinking College Student Retention*





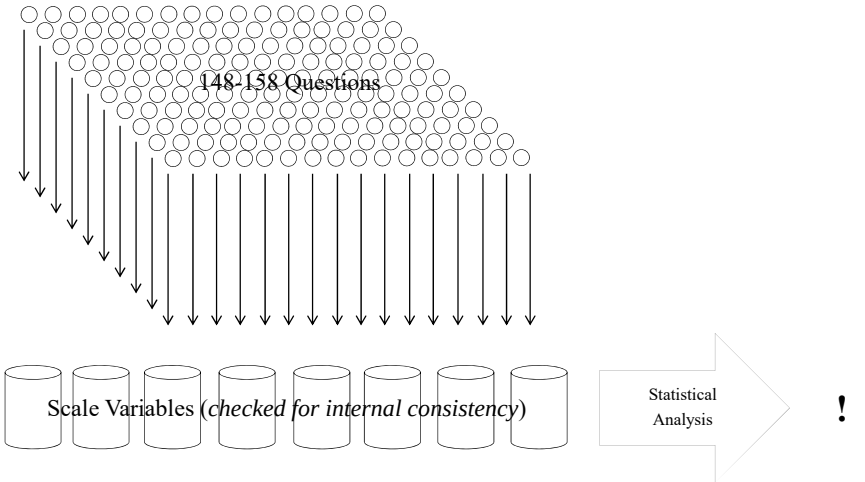
52

Explaining the Gap:
A Colloquial Guide to Terminology

Variable Name	Description	Might Say…
Psychosocial Engagement	Self-reported estimates of how frequently during the course of the school year the student has engaged in activities outside of class	*Sign me up!*
Social Integration	Degree of student's integration into the campus social system	*"I love you man!"*
Communal Potential	Student's perception of the potential for community among peers on campus	*"We are family!"*
Institutional Integrity	Student's perception that the institution acts in a manner consistent with its stated values and espoused mission	*"Show me the money!"*
Commitment of the Institution to Student Welfare	Student's perception that the institution genuinely supports the well-being of students	*"You love me; you really love me!"*
Faith Engagement*	Extent to which student exhibits or engages in faith related activities	*"Lord, just get me through this and I'll never…"*
Diversity Climate*	Student perceptions of campus tolerance for diversity	*"You say tomAto, I say tomAHto."*
Faculty Engagement *	Influence of faculty interactions on student experience	*"Yes, Obi Wan."*

53

Input:
Data Organization



54

Driving Persistence:
Factors Influencing Social Integration

	Model 1		Model 2		Model 3		Model 4	
Variables	Standardized Coefficients	*Un-Standardized*	Standardized Coefficients	*Un-Standardized*	Standardized Coefficients	*Un-Standardized*	Standardized Coefficients	*Un-Standard*
(Constant)		0.179		0.155		0.146		0.184
High School GPA+	-0.032	-0.01	-0.03	-0.01	-0.024	-0.007	-0.032	-0.01
On-Campus Residence++	0.015	0.019	0.014	0.018	0.009	0.011	0.003	0.004
Inistinal Institutional Commitment++	-0.058	-0.039	-0.054	-0.036	-0.031	-0.021	-0.06	-0.04
Ability to Pay++	-0.015	-0.012	-0.017	-0.013	-0.014	-0.01	-0.016	-0.012
Psychosocial Engagement	0.184**	0.166	0.185**	0.168	0.169**	0.151	0.172**	0.156
Communal Potential	0.521***	0.507	0.525***	0.512	0.535***	0.51	0.531***	0.517
Institutional Integrity	0.056	0.044	0.054	0.042	0.057	0.044	0.061	0.048
Commitment to Student Welfare	0.201*	0.18	0.207*	0.187	0.213*	0.187	0.226**	0.203
Faculty Engagement	-0.007	-0.007	-0.013	-0.013	-0.019	-0.018	-0.029	-0.029
Athletic Status			0.016	0.016	0.013	0.013		
Co-Curricular Participation					-0.022	-0.023		
First Year Class Status							0.062	0.065
Adjusted R-Squared	0.636***		0.634***		0.619***		0.637***	
N	183		182		181		183	

**p<0.05, **p<.01, ***p<.001*

++ Bivariate analysis on numaric variable indicates significant correlation with Social Integration at the .01 Level
+ Bivariate analysis on numeric variable indicates significant correlation with Social Integration at the .05 Level

55

Driving Persistence:
Low Retention Institution vs. High Retention Institution

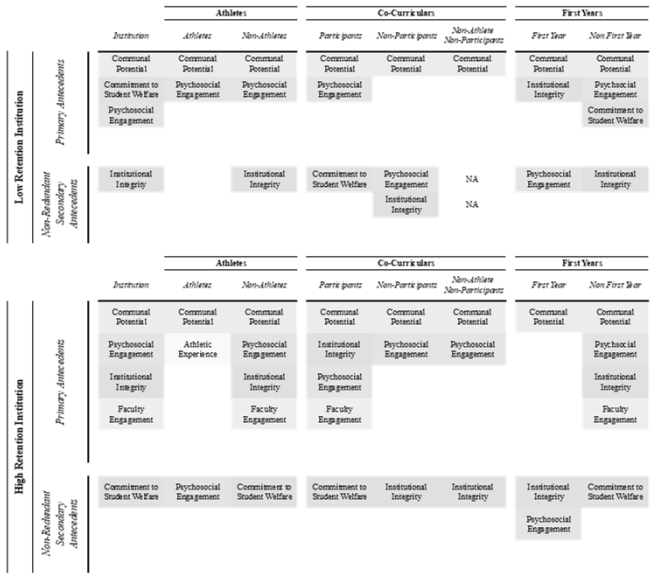
	Low Retention Institution		**High** Resolution Institution	
Variables	Standardized Coefficients	*Un-Standardized*	Standardized Coefficients	*Un-Standardized*
(Constant)		0.179		-0.348
High School GPA+	-0.032	-0.01	0.005	0.002
On-Campus Residence++	0.015	0.019	0.013	0.023
Inistinal Institutional Commitment++	-0.058	-0.039	-0.035	-0.027
Ability to Pay++	-0.015	-0.012	-0.004	-0.003
Psychosocial Engagement	0.184**	0.166	0.198***	0.224
Communal Potential	0.521***	0.507	0.543***	0.557
Institutional Integrity	0.056	0.044	0.147***	0.134
Commitment to Student Welfare	0.201*	0.18	-0.004	-0.004
Faculty Engagement	-0.007	-0.007	0.103**	0.127
Athletic Status				
Co-Curricular Participation				
Adjusted R-Squared	0.636***		0.604***	
N	183		550	

**p<0.05, **p<.01, ***p<.001*

++ Bivariate analysis on numaric variable indicates significant correlation with Social Integration at the .01 Level
+ Bivariate analysis on numeric variable indicates significant correlation with Social Integration at the .05 Level

56

Driving Persistence:
Social Integration Map



		Athletes		Co-Curriculars			First Years	
	Institution	*Athletes*	*Non-Athletes*	*Participants*	*Non-Participants*	*Non-Athlete Non-Participants*	*First Year*	*Non First Year*
Low Retention Institution	*Primary Antecedents*	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential
		Commitment to Student Welfare	Psychosocial Engagement	Psychosocial Engagement			Institutional Integrity	Psychosocial Engagement
		Psychosocial Engagement						Commitment to Student Welfare
	Non-Redundant Secondary Antecedents	Institutional Integrity		Commitment to Student Welfare	Psychosocial Engagement	NA	Psychosocial Engagement	Institutional Integrity
					Institutional Integrity	NA		

		Athletes		Co-Curriculars			First Years	
	Institution	*Athletes*	*Non-Athletes*	*Participants*	*Non-Participants*	*Non-Athlete Non-Participants*	*First Year*	*Non First Year*
High Retention Institution	*Primary Antecedents*	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential	Communal Potential
		Psychosocial Engagement	Athletic Experience	Psychosocial Engagement	Institutional Integrity	Psychosocial Engagement	Psychosocial Engagement	Psychosocial Engagement
		Institutional Integrity	Institutional Integrity	Psychosocial Engagement				Institutional Integrity
		Faculty Engagement	Faculty Engagement	Faculty Engagement				Faculty Engagement
	Non-Redundant Secondary Antecedents	Commitment to Student Welfare	Psychosocial Engagement	Commitment to Student Welfare	Institutional Integrity	Institutional Integrity	Institutional Integrity	Commitment to Student Welfare
							Psychosocial Engagement	

57

Driving Retention:
Persistence and Retention at the LRI

- Regression tells us what *is* present; not what *isn't or should be*
- Stated Intent to Reenroll (**Persistence**) = **80-90%**
- Actual retention is **66%**

?

- **Institutional Integrity** and **Faculty Engagement** are missing as antecedents at Low Retention Institution
- Low cultural capital

58

Unpacking Institutional Integrity:
If it's the big driver, what drives it?

Variables	HRI Institutional Integrity Standardized Coefficients	*Un-Standardized*
(Constant)		0.648
Gender	-0.084	-0.109
Race/Ethnicity	0.002	0.003
Parental Education Level	0.063	0.013
Parental Income	-0.018	-0.003
Average Grades in High School	0.023	0.01
On-Campus Residence	-0.02	-0.037
Initial Institutional Commitment	-0.068	-0.056
Ability to Pay	0.021	0.018
Psychosocial Engagement	-0.136**	-0.167
Social Integration	0.148**	0.162
Communal Potential	0.102**	0.112
Commitment of the Institution to Student Welfare	0.487***	0.491
Faith Engagement	0.062	0.045
Diversity Climate	-0.089*	-0.075
Faculty Engagement	0.072	0.095

59

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Braxton, et al. (2014): *Rethinking College Student Retention* revised by Coyne & Stokes

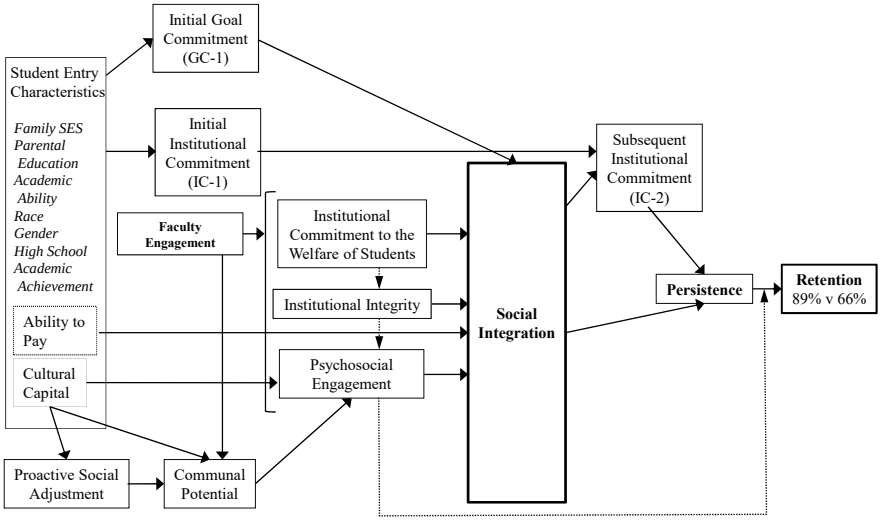
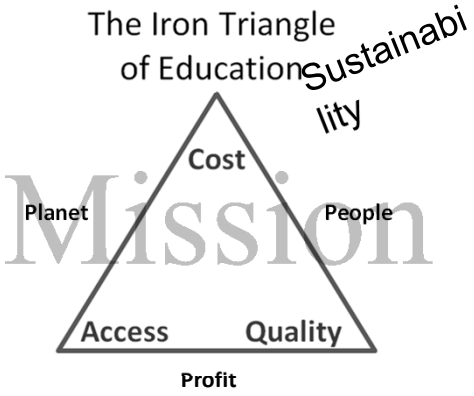


Figure 1: Toward a revision of the theory of student persistence in residential colleges and universities.

60

Bottom Line:
Dare we say it?? A new paradigm! (ugh).



61

The Samford Story:
Lens 3 – Are Infrastructure Improvements a Good Retention Bet?

62

Explaining the Gap:
Recommendations of Policy and Practice

Time to talk…

Samford University