The Florida Senate

COMMITTEE MEETING EXPANDED AGENDA

EDUCATION
Senator Legg, Chair
Senator Montford, Vice Chair

MEETING DATE: Wednesday, January 23, 2013
TIME: 8:30 —10:30 a.m.
PLACE: *Pat Thomas Committee Room,* 412 Knott Building

MEMBERS: Senator Legg, Chair; Senator Montford, Vice Chair; Senators Benacquisto, Brandes, Bullard, Galvano, Sachs, Simmons, and Stargel

TAB	BILL NO. and INTRODUCER	BILL DESCRIPTION and SENATE COMMITTEE ACTIONS	COMMITTEE ACTION
1	Welcome Governor Rick Scott		
2	Introduction of Florida Commissioner of Education Tony Bennett		Presented
3	Presentation of the Florida State University System Online University Study		Presented
4	State University System Supply/Demand Gap Analysis Discussion		Presented
	Other Related Meeting Documents		

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

1/23/13
Meeting Date

Topic Introduction

Bill Number N/A *(if applicable)*

Name Tony Bennett

Amendment Barcode N/A *(if applicable)*

Job Title Commissioner

Address 325 W. Gaines Street
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Tallahassee FL 32399
City *State* *Zip*

Phone 850-245-9663

E-mail Tony.Bennett@FLdoe.org

Speaking: ☐ For ☐ Against ☐ Information

Representing DOE

Appearing at request of Chair: ☒ Yes ☐ No

Lobbyist registered with Legislature: ☒ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

Strategy Retreat: Online University Study Summary

January, 2013

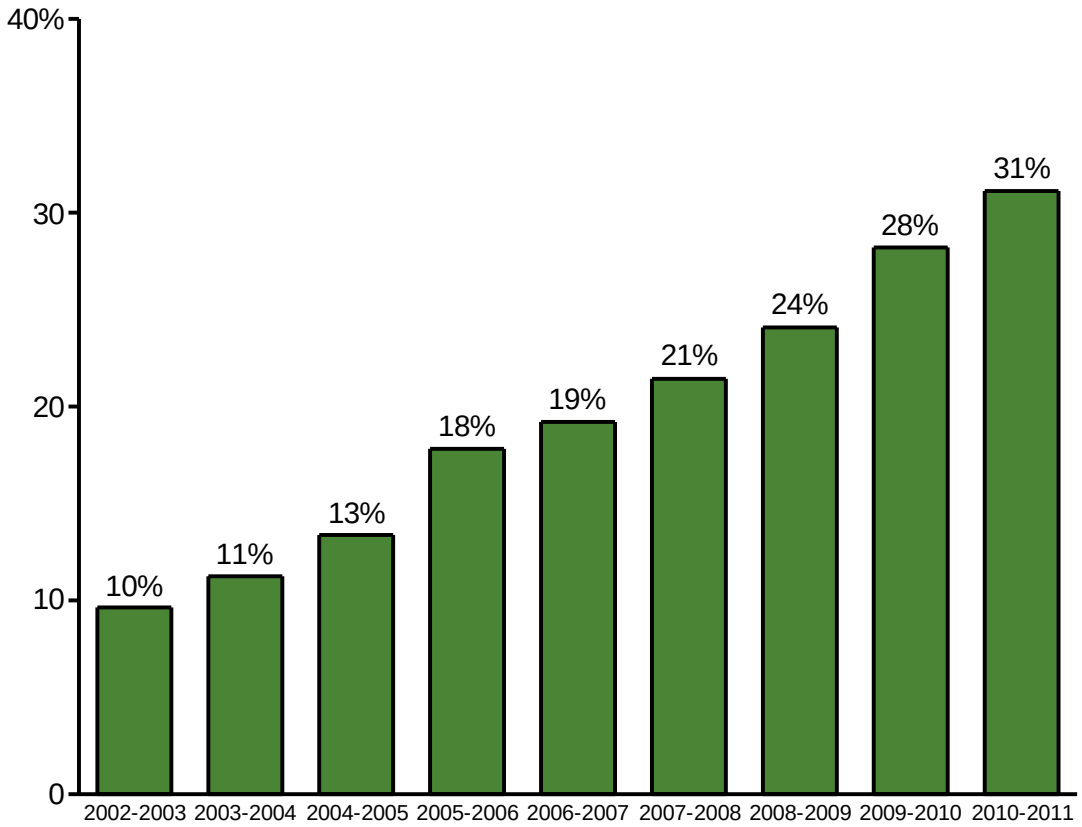
THE PARTHENON GROUP

Introduction

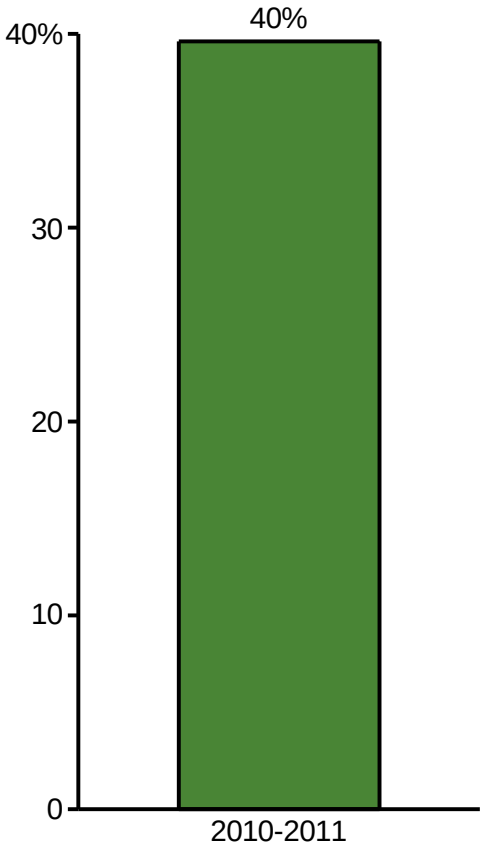
- There are differing views as to the primary objectives for online post-secondary education in Florida. The strategies presented here attempt to encompass this spectrum of objectives
- This is a long-term post-secondary online strategy; it is not meant to focus on any specific degree level or industry
- Any strategy adopted should exhibit outstanding offerings and best practices for post-secondary online learning, such as best-in-class course and program design, top faculty, highly efficient course scheduling, analytically advanced marketing efforts, and data-driven student supports
- Any adopted strategy must include comprehensive tracking of online outcomes. Online learning is an evolving method of delivery – constant evaluation is critical to drive further innovations and improvements; daily, weekly, and monthly monitoring of online students is critical
- The National Center for Educational Statistics (NCES) is the source of the expenditure data in this report. This data is submitted to IPEDS by all Title IV eligible institutions
- Online learning is not a “silver bullet”: Different learners are suited to different ways of learning. Online learning allows Florida to expand its portfolio of offerings to meet the needs of its diverse constituent base
- The strategies presented here have been described, modeled, and evaluated one at a time. A combination of the strategies could also be adopted
- The accompanying detailed fact-base provides both background and further detail behind the materials presented in this summary

In Florida and across the nation, students are taking advantage of online learning opportunities

Percent of Nationwide Students Taking at Least One Course Online, 2002-2003 to 2010-2011



Percent of Florida SUS and FCS Students Taking at Least One Course Online, 2010-2011



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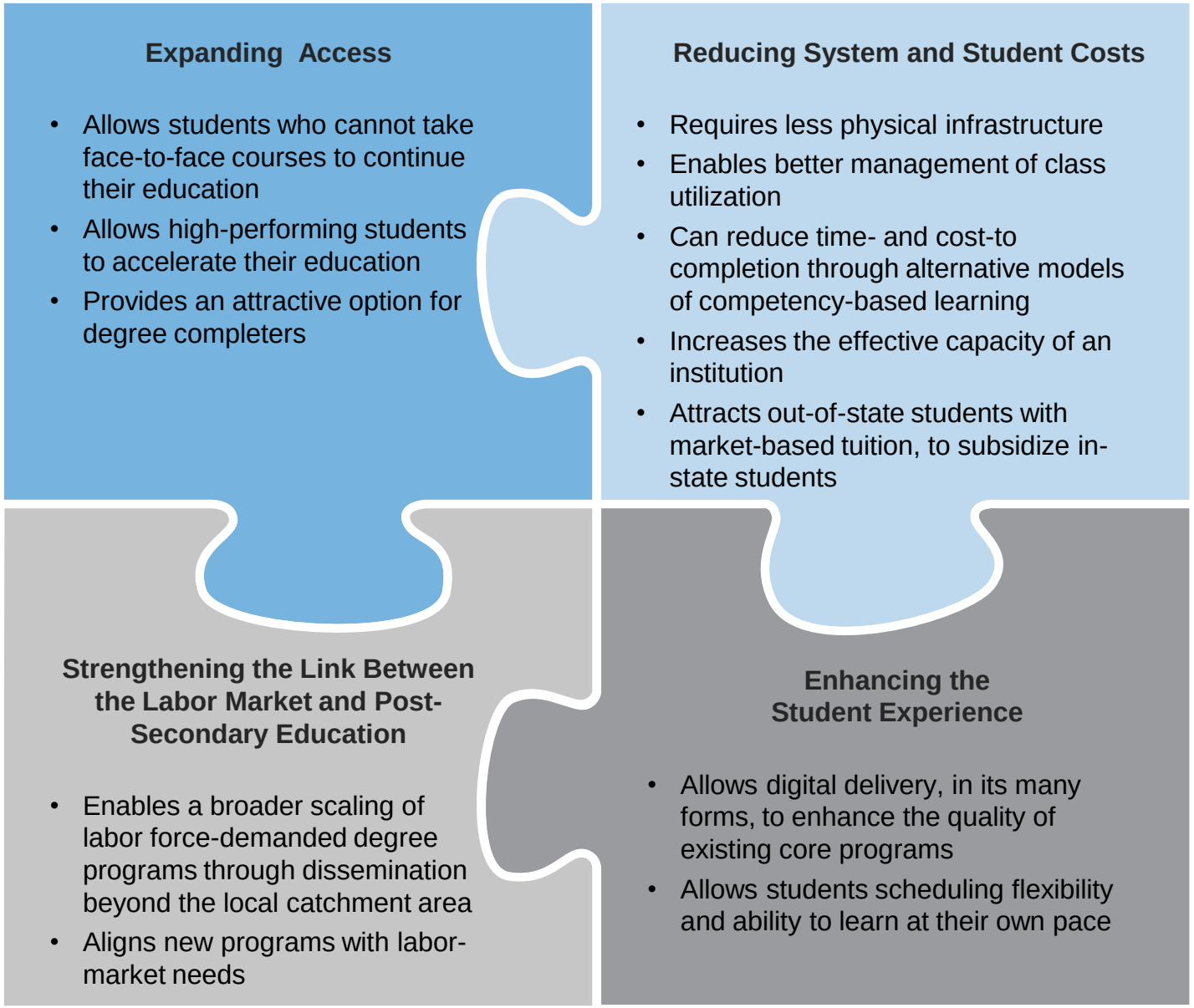
Note: Students taking at least one online class is defined as students taking at least one course where 80% or more of the content is delivered online
Source: Babson Survey Research Group; SUS Board of Governors; FL DOE

The online offerings that students seek come in a number of forms, targeting different students with different requirements for success

		Target Students	Requirements for Success
Online/Hybrid Courses for Campus-Based Students *~1/3 of students are already taking an online course*		• Residential and commuter students • Can be campus-based or remote	• Coordination on degree program design and supplemental services to achieve best-in-class offerings, scale efficiencies and lower costs across the system
Fully Online Degree Programs *~50% of institutions are offering online degree programs*	**Undergraduate Certificate/ Associate Degree Completion**	• Adults looking to enhance their employment prospects or transition professions	• Incoming students have 20+ credits • Continuous starts, competency options • Highly aligned with labor market needs
	Bachelor Degree Completion	• Working adults looking to complete bachelor's degrees • Typically employed and/or with families	• Incoming students have 40+ credits • Continuous starts, competency options • Highly aligned with labor market needs
	Graduate Degree	• Employed working adults typically intending to remain in their current career field	• Self-directed study often possible and preferred • Highly aligned with labor market needs
Self-Directed Courses (MOOC-Inspired) *Nascent offering*		• Wide age range of students (e.g., high school through adult) seeking to accelerate credit accumulation at a very low cost • Self-directed students, who require no instructor contact	• Quality evaluation frameworks and testing policies to allow for awarding of credits

Source: Babson Survey Research Group; Parthenon Online Survey; Peterson's Database

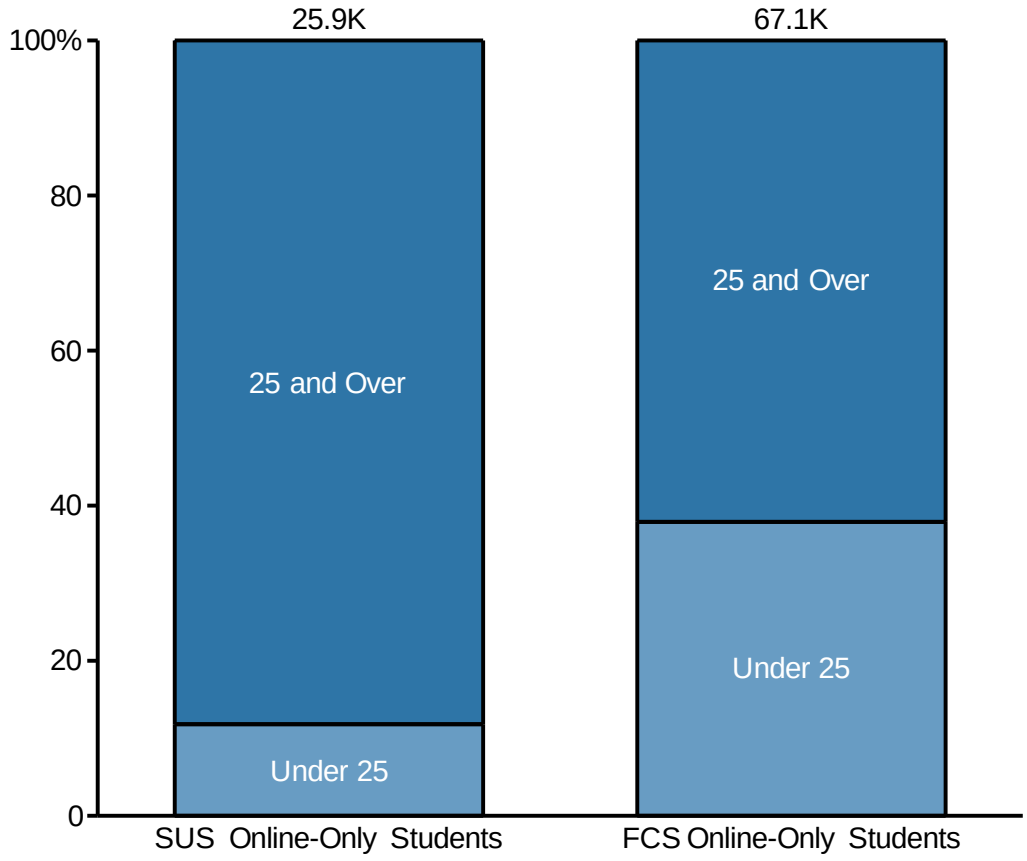
Stakeholders across Florida have conveyed four primary objectives for post-secondary online learning



Online degree programs are expanding access to adult and non-traditional learners

Expanding Access

SUS and FCS Online-Only Students Enrollment by Age, 2010-2011



Florida Today

- Students are enrolling in online programs at all degree levels; the demographics of these students are similar across degree levels
- The SUS and FCS currently offer ~700 online programs; ICUF (~220) and for-profit institutions (~850) also offer many online programs
- Online courses within the SUS and FCS are primarily focused on providing multiple modality options for the same target student
- The Florida Virtual Campus (FLVC) allows students to more easily access courses from other institutions
- Florida's common course numbering and articulation agreements promote easy transfer of course credit between Florida's institutions
- UF has recently announced it will post non-credit MOOCs on Coursera

Opportunities for Further Innovation Within the SUS/FCS

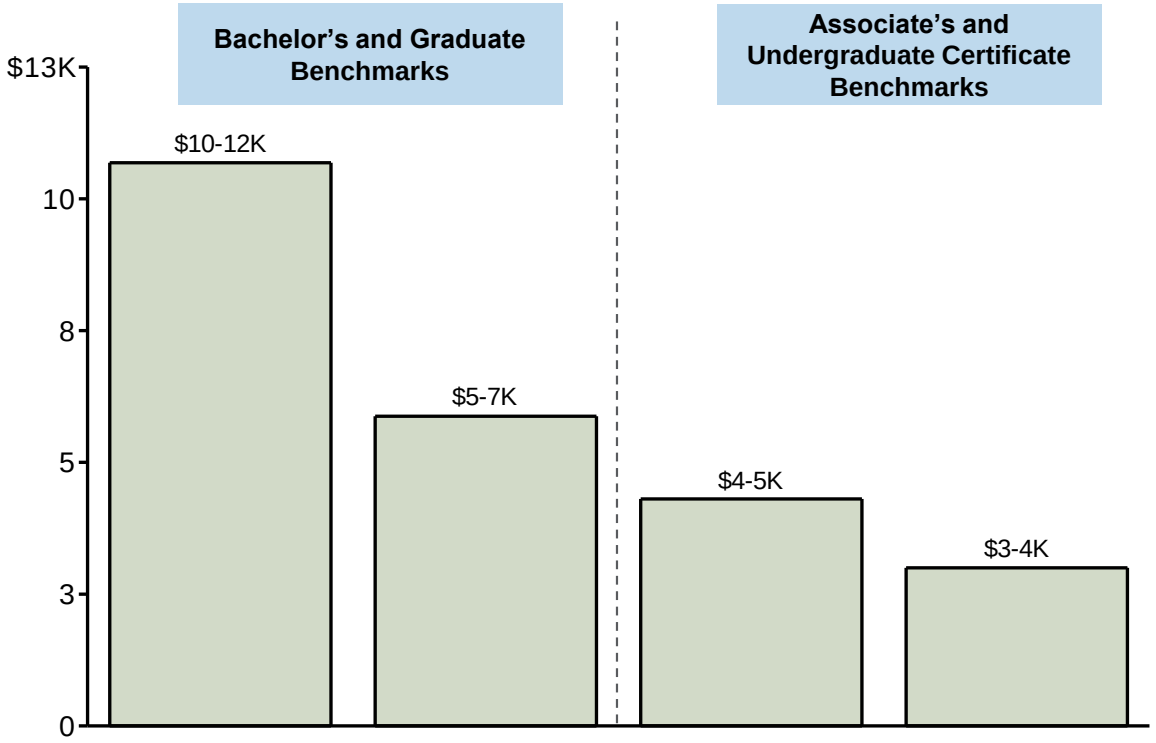
- Develop robust onboarding/ support services and data tracking capabilities across the SUS and FCS
- Develop MOOCs and proctored exams for high demand courses

Note: Additional breakdown by degree level can be found in the detailed fact base; SUS and FCS online-only defined as students who only took online courses in 2010-2011
Source: SUS Board of Governors; FL DOE, Interviews with SUS and FCS institutions

Online-focused institutions are developing fundamentally different expenditure models

Reducing System and Student Costs

Benchmarked Online Institutional Expenditures per FTE, 2010-2011



Degree Program Model	Credit-Based	Competency-Based	Credit-Based	Competency-Based
Instructional touch	High	Low	Low	Very Low
Student-faculty ratio	18:1	30:1	39:1	N/A

Florida Today

- Online courses within the SUS and FCS are offered at the same tuition levels as comparable face-to-face courses
- The addition of the distance learning fee increases the total cost per credit hour for most distance learning students in SUS and FCS institutions
- Most SUS and FCS institutions believe online and onsite costs are comparable
- The costs of their online-only courses and degree programs cannot easily be separated from other institutional costs
- ICUF and for-profit online offerings are typically offered at lower tuition levels than onsite

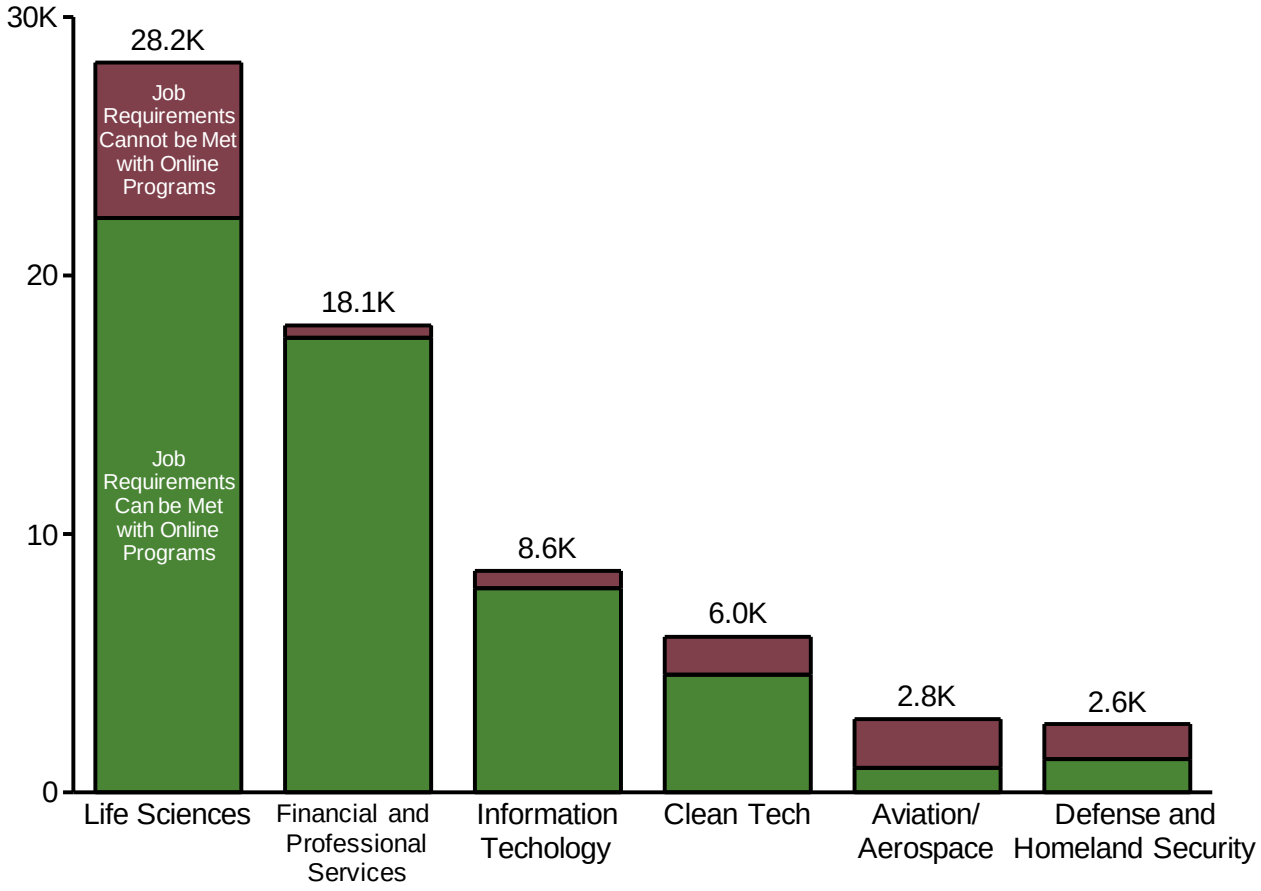
Opportunities for Further Innovation Within the SUS/FCS

- Develop lower-expenditure and lower-tuition models to expand the portfolio of offerings available to students, while maintaining commitment to performance
- Closely identify and track online course costs

Note: Competency programs award credit based on mastery of material rather than on seat time. These programs minimize instructional costs by utilizing student mentors and allowing students to complete courses at their own pace; Expenditures include academic support expenditures, student service expenditures, institutional support expenditures, and instruction expenditures
Source: IPEDS; ~85+ Institution and expert interviews were conducted by Parthenon for the Florida engagement as well as multiple proprietary projects, from July – November 2012

Nationally, online degree programs can meet post-secondary requirements for ~80% of job openings in target clusters

EFI Target Industry Job Openings (2020 Projected) that Can Be Satisfied with Current National Online Degree Program Offerings



Florida Today

- Institutions are offering online courses and degree programs with career-focused options at every degree level
- Of the EFI Target Industry Job Openings (2020 Projected), ~30% can be satisfied with SUS or FCS online programs

Opportunities for Further Innovation Within the SUS/FCS

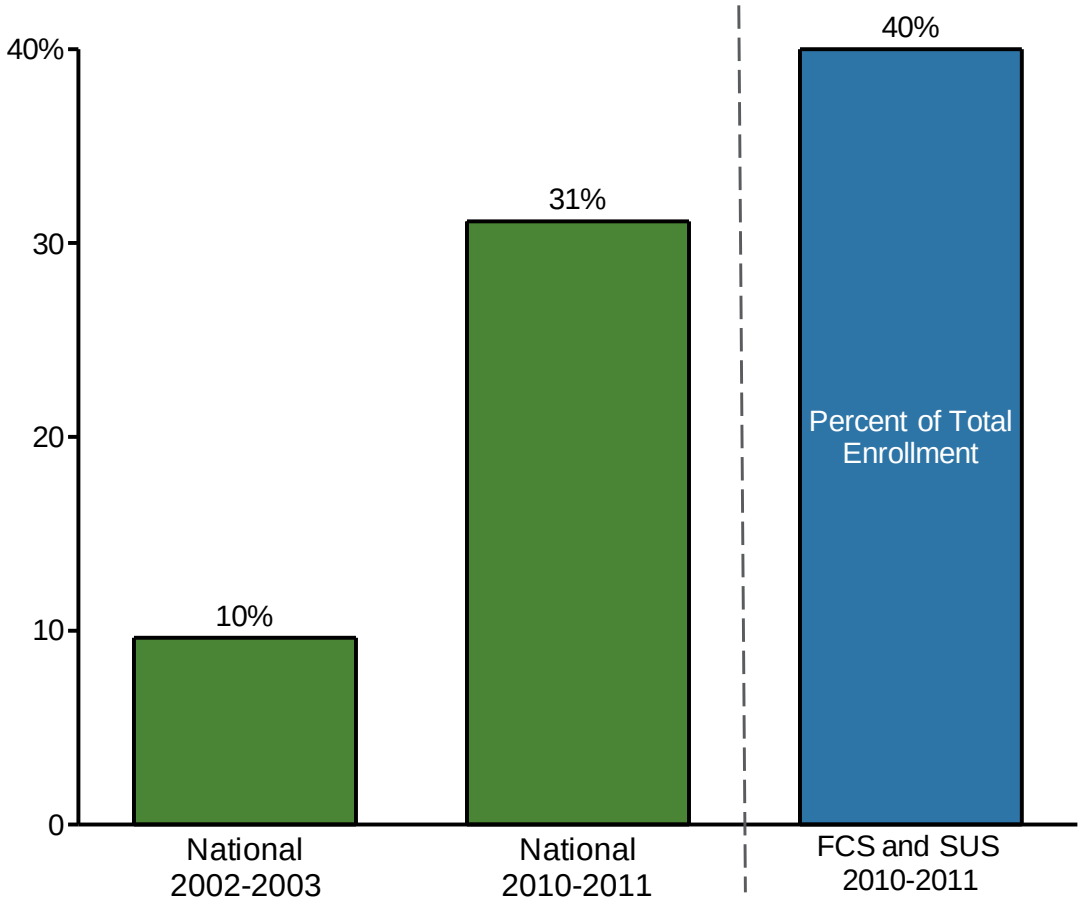
- Increase the focus on online-only students through a broader portfolio of more flexible offerings, while maintaining high standards of academic quality
- Better alignment between industry and post-secondary education through state-level "Industry Councils" and Florida Department of Economic Opportunity, who would provide input on new degree programs and curriculum

Note: SOC codes are manually mapped to Florida's 6 target clusters, identified by Enterprise Florida Inc; Job openings in positions with SOC codes are mapped to a program CIP code; it is then determined which program CIP codes map to DL courses offered nationally (green); Some occupations fell into more than one job cluster and are therefore duplicated within appropriate industry clusters
Source: BLS; Florida Department of Economic Opportunity's 2012-2020 Projections Statewide (FL DEO); 2010-2015 Strategic Plan for Economic Development, from Enterprise Florida Inc. (EFI); Peterson's Distance Learning Database; IPEDS; SUS Board of Governors; FL DOE

Students are increasingly seeking online options

Enhancing the Student Experience

Percent of Students Taking at Least One Course Online, National 2002-2003 and 2010-2011, SUS and FCS 2010-11



Percent of Students Taking Fully Online Degree Programs	N/A	12%-14%	<10%*

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- Online courses often fill first
- A small subset of students within the SUS and FCS take fully online degree programs*
- ICUF institutions have ~30K students enrolled in online-only programs
- Professors are adding online components to core onsite courses to enhance the student experience
- Program design, marketing, and support service capabilities differ across the 38 FCS and SUS institutions that offer online courses

Opportunities for Further Innovation Within the SUS/FCS

- Ensure all students have access to best-in-class online offerings and supports
- Robust ongoing analysis on a daily and weekly basis will be critical to improving online outcomes

Note: Students taking at least one course online refers to any student taking at least one course where 80% or more of the content is delivered online;
*There is no designation within SUS/FCS for online-only students; The number of students taking online-only courses in 2010-2011 is 93K; It appears that the actual number of online-only students is lower as only 19K of those same students were enrolled in online-only courses in 2011-12
Source: Babson Survey Research Group; Deutsche Bank Report; Eduventures Online Higher Education Update 2011; School websites; IPEDS; SUS Board of Governors; ~85+ Institution and expert interviews were conducted by Parthenon for the Florida engagement as well as multiple proprietary projects, from July – November 2012

Institutions are developing best practices in online post-secondary education, with a focus on high quality program development, delivery and support

	Program Design	Marketing and Inquiry	Onboarding/ Student Support	Course Scheduling	Instruction	IT and Data Analytics
	How do best practices in online learning help satisfy online objectives across the value chain?					
Expanding Access	Students can access a portfolio of offerings	State, regional, and national marketing efforts to ensure coverage of all target students	Multi-modal support services (in-person, online, phone), responsive 24/7	Increased frequency of start dates offer greater flexibility to nontraditional students	Asynchronous and synchronous modalities	-
Reducing System and Student Costs	Studio space, technology, and faculty serve multiple institutions	Large-scale data-driven marketing that drives economies of scale	-	Coordinated scheduling that allows for optimization of student-teacher ratios	Greater instructor utilization possible	Early-warning systems tied to intervention to reduce attrition
Strengthening the Link Between the Labor Market and Post-Secondary Education	Industry collaboration on program offerings	Private partners utilized to target offerings to student segments with in-demand program offerings	Career service and job placement teams	-	-	Job placement tracking linked to other performance metrics
Enhancing the Student Experience	State of the art technology and best-in-class design teams serve multiple institutions	Private partners utilized to target offerings to student segments best matching student need	Data-driven at-risk identification and proactive intervention strategies Assigned success mentors and guidance counselors	Virtual campuses allowing students to leverage course offerings across a system Common course numbering	Embedded value-added digital learning solutions Leverage star faculty	Dedicated analytics teams tracking real-time student performance Common LMS and student information system

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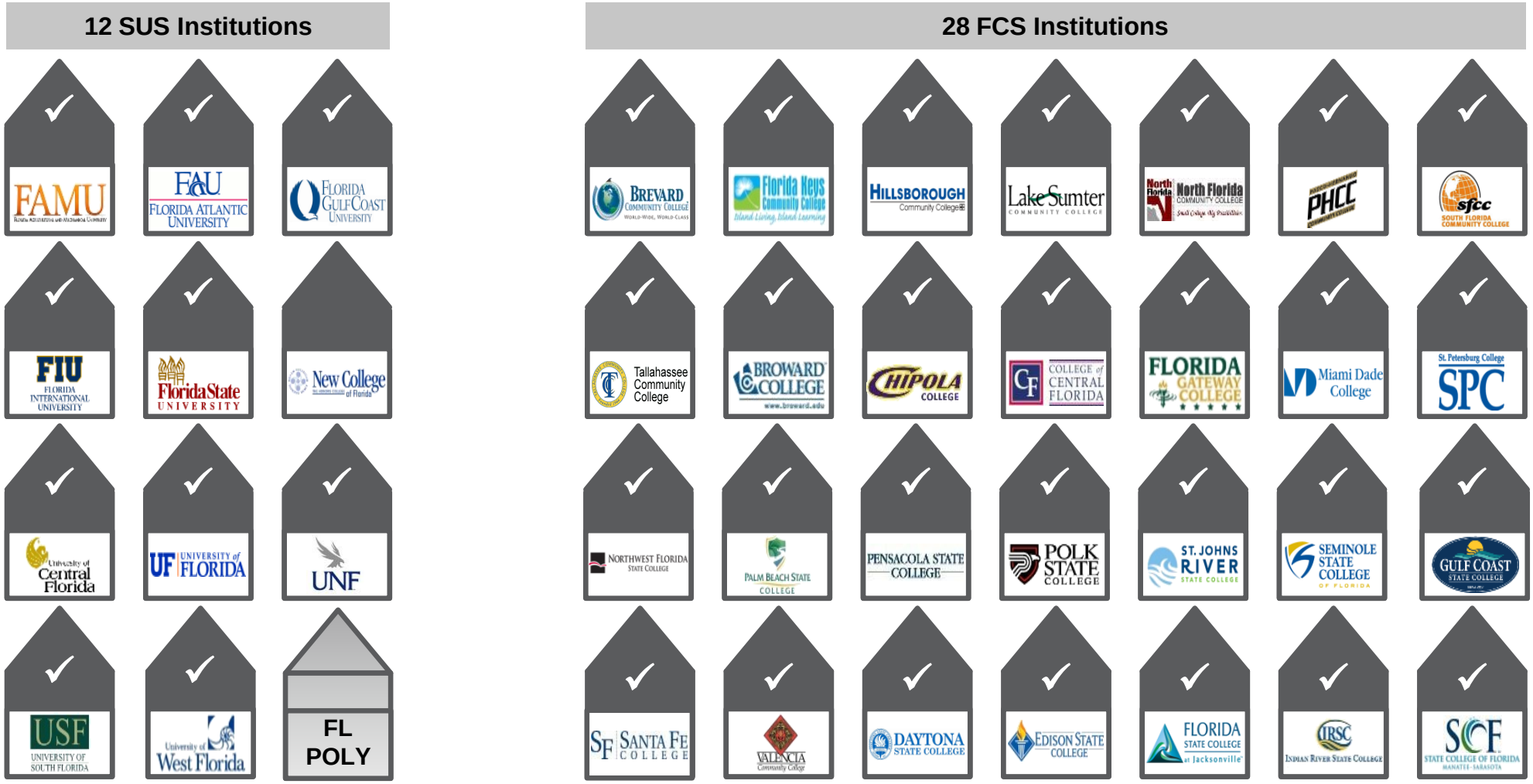
Source: ~85+ Institution and expert interviews were conducted by Parthenon for the Florida engagement as well as multiple proprietary projects, from July – November 2012

These activities are currently being developed independently across the 38 institutions that offer online courses



Each institution within the SUS and FCS with an online program (✓) has an independent online strategy, with its own marketing, course design, instruction, support services, and IT capabilities

1211SUFL_01

Source: FLVC

Florida could consider four strategies to drive the development and expansion of high quality new program offerings

1	2	3	4
Institution by Institution	**Institutional Collaboration**	**Lead Institution(s)**	**New Online Institution**
Description:			
• Institutions develop online offerings on their own, driving innovation in a way that best fits each school's mission	• System-wide online degree program offerings are developed under the direction of a coordinating body (e.g., FLVC, BoG, FL DOE)	• One (or a few) institution(s) is selected by RFP process to drive the development of new online offerings in target degree levels and disciplines	• An online institution is launched to drive portfolio expansion of lower cost models

Across all 4 strategies, programs will:

1. Increase student access to a **portfolio of offerings**
2. Be delivered at a **lower cost to the student** and/or the state
3. Align to **statewide labor force needs**
4. Ensure a **high quality student experience** for all students

Considered strategies could be evaluated for each type of online offering – the new, fully online degree programs were evaluated

		Target Students	Requirements for Success
Online/Hybrid Courses for Campus-Based Students		• Residential and commuter students • Can be campus-based or remote	• Coordination on degree program design and supplemental services to achieve best-in-class offerings, scale efficiencies and lower costs across the system
Fully Online Degree Programs	**Undergraduate Certificate/ Associate Degree Completion**	• Adults looking to enhance their employment prospects or transition professions	• Incoming students have 20+ credits • Continuous starts, competency options • Highly aligned with labor market needs
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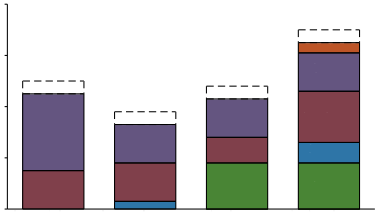
Source: Babson Survey Research Group; Parthenon Online Survey; Peterson's Database

Benefits and potential draw-backs differ across the 4 strategies

	1 Institution by Institution	2 Institutional Collaboration	3 Lead Institution(s)	4 New Online Institution
Benefits	• Allows institutions to drive their own online strategy in accordance with their missions • Fosters local innovation	• Reduces duplication of efforts across institutions • Allows all students to benefit from the same high quality processes and offerings • Inclusive but coordinated: many institutions can be selected to participate	• Scale efficiencies can be developed • There is a designated "owner" of the strategy in the lead institution • Existing brand strengths can be leveraged	• Fewer institutional barriers to developing new models and processes • Ability to design and implement best practices from the start • Systems and infrastructure designed specifically for the online student
Potential Drawbacks	• Economies of scale and best-in-class processes are harder to achieve consistently • Lack of centralized or coordinated program aligned to changing needs of state labor markets	• No clear "owner" of the results • Difficult to make adjustments to processes quickly with multiple stakeholders involved	• Participation of non-selected institutions could be limited • Innovation is potentially stifled through focus on one institution instead of many	• Lacks the brand equity of an existing institution • Complexity and cost of creating new institution

Strategies will necessitate levels of initial investment ranging from ~$30-70M



Start-Up Expenditures Associated with Each Approach to Online Expansion

$70M

$65M

$50M

$45M

$48M

$43M

$38M

$33M

* Program design will take place over the 10-year time period

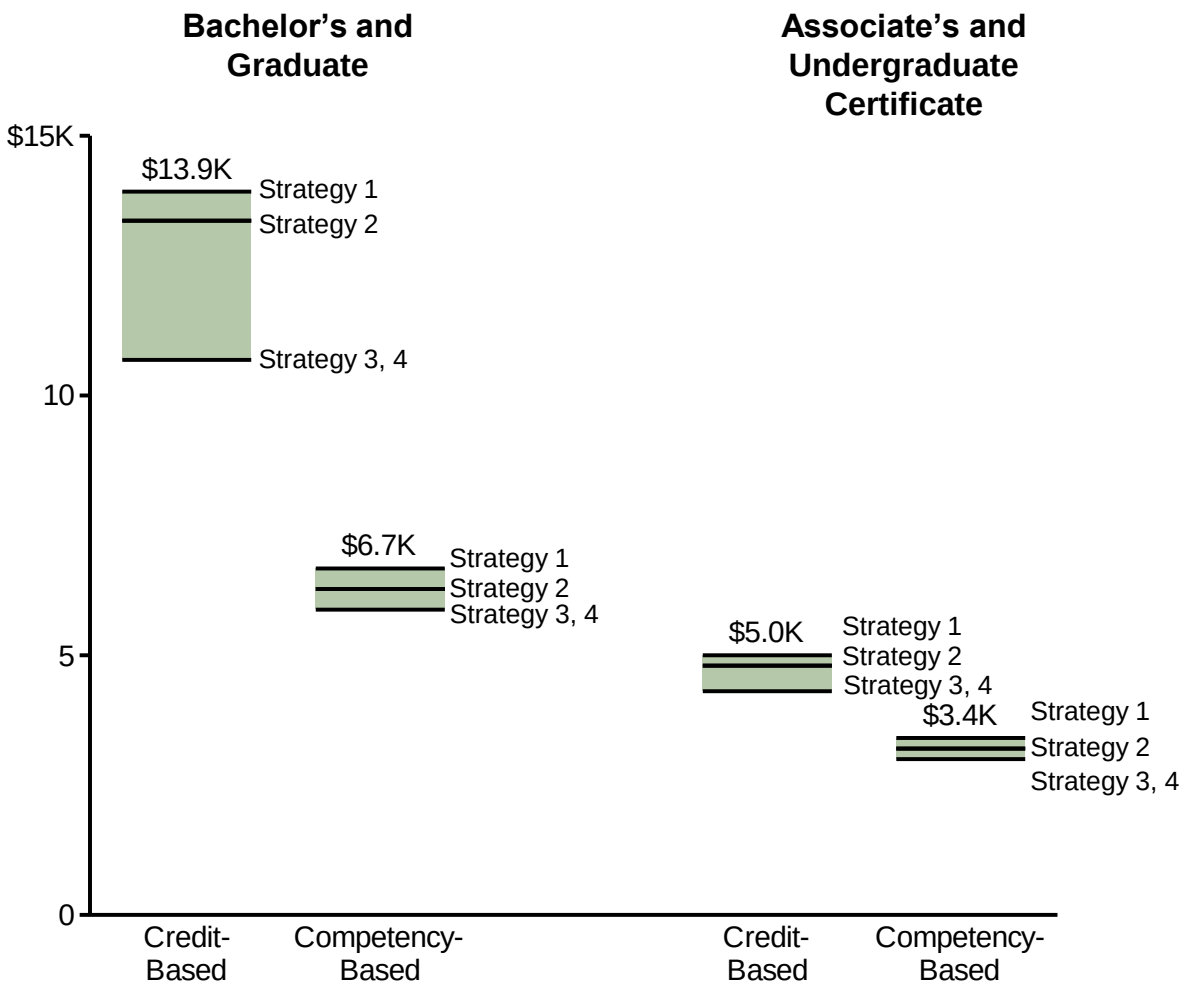
Note: Dotted lines represent range of total start-up expenditure; Facility needs benchmarked off of WGU infrastructure needs; Technology assumes: $5M for LMS (learning management system), $2M for ERP (enterprise resource planning), $1M for SIS (student information system), benchmarked off of multiple institution interviews; Brand building benchmarked off of SNHU's $15M brand building initiative and WGU's brand building spend when entering Texas, Indiana and Washington; Program design assumes $10K per course and an average of 30 unique courses per program; Institutional leadership becomes a recurring cost as FTEs begin to enroll

Source: ~85+ Institution and expert interviews were conducted by Parthenon for the Florida engagement as well as multiple proprietary projects, from July-November 2012

Strategies for Consideration

Recurring expenditures per FTE vary across models due to structural efficiencies

Recurring Expenditures per FTE for Online Instruction, by Strategy, Program and Degree Type



Recurring Expenditure Drivers

1 Institution by Institution

- Duplicative processes result in inefficiencies across support services provided to new fully-online students

2 Institutional Collaboration

- Instructional models move towards best practices, but coordination difficulties across participating institutions prevent institutions from matching best practice cost structures

3 Lead Institution

- Centralized processes allow the system to eliminate inefficiencies, achieve scale and match best-in-class support service cost structures

4 New Online Institution

- Centralized processes allow the system to eliminate inefficiencies, achieve scale and match best-in-class support service cost structures

Source: IPEDS; ~85+ Institution and expert interviews were conducted by Parthenon for the Florida engagement as well as multiple proprietary projects, from July – November 2012

Effectiveness of educational investment should be measured by students served and cost of successful outcomes

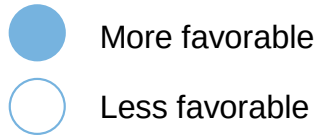
	1 Institution by Institution	2 Institutional Collaboration	3 Lead Institution(s)	4 New Online Institution
Total Completions (Over 10 Years)	25K	48K	77K	41K
Total Expenditure (Over 10 Years)	$0.9B	$1.4B	$1.9B	$1.1B
Expenditure Per Completion = Expenditure per Credit x (Credits Needed / Graduation Rate)				
Example				
Expenditure per BA Credit (in Year 10)	$416	$395	$332	$335
Graduation Rate (in Year 10)	42%	49%	57%	57%
Expenditure per BA Completion (in Year 10)	$79K	$64K	$47K	$47K

Note: Expenditure per credit is calculated by dividing expenditure per FTE by 30 credits; Expenditure per completion assumes students are enrolling with 40 credits and need 120 to completes; Expenditures include instruction, academic support, student support, and institutional support expenditures; Included in Year 10 costs are an annual 2% inflation assumption
Source: 10 Year Financial Model

Partners could be considered across each strategy

Private Providers	Description of Services
Online Enablers	• Provide expertise in areas where an institution or system may lack a core competency (e.g., marketing, support services, data tracking) • Can help defray start-up costs and ongoing capital required; flat fee or revenue share is the typical business model
Competency Program Providers	• Provide a lower-tuition postsecondary alternative, typically to degree completers and working adults • Partnership could speed learning curve of the internal development and execution of competency programs
Other Program Providers	• Provide labor-focused, flexible (e.g., more start dates, modularized) course offerings • Can defray development costs; revenue share model would likely need to be developed
Marketing Services Providers	• Provide expertise in outsourced marketing services (e.g., SEO, web marketing, TV, etc.), which is typically not a core competency of public institutions • Flat fee or revenue share is the typical business model
Testing Providers	• Provide proctored examination facilities; can also partner to develop tests • Can defray the cost of developing a more comprehensive exam proctoring operation; given testing providers' scale, they could likely offer the exam at a lower cost to the student

Prioritization of strategies may differ based on the prioritization of stakeholders and by type of online offering



	Potential Considerations		1 Institution by Institution	2 Institutional Collaboration	3 Lead Institution	4 New Institution
Objectives For Online Learning	Expanding Access					
	Reducing System and Student Costs	Start-Up Costs				
		Recurring Costs				
	Strengthening the Link Between the Labor Market and Post-Secondary Education					
	Enhancing the Student Experience					
Other Practical Considerations	Additional Accreditation Processes Required					
	Degree of Implementation Difficulty					
	Brand Strength					
	Developing Best-in-Class Business Processes					
	Start-Up Time Required					

Stakeholder priorities should determine the relative weighting of these considerations

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

1/23/2013
Meeting Date

Topic Online University Study

Bill Number _____ *(if applicable)*

Name Dr. Nancy McKee

Amendment Barcode _____ *(if applicable)*

Job Title Associate Vice Chancellor, Board of Governors

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Tallahassee FL 323
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E-mail _____

Speaking: ☐ For ☐ Against ☑ Information

Representing _____

Appearing at request of Chair: ☑ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☐ No

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23 Jan 2012
Meeting Date

Topic Online university study

Bill Number _____ *(if applicable)*

Name Robert S Lytle

Amendment Barcode _____ *(if applicable)*

Job Title Partner, The Parthenon Group

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Phone 617 818 4507

E-mail roble@partheon.com

Speaking: ☐ For ☐ Against ☐ Information

Representing _____

Appearing at request of Chair: ☒ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☐ No

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1/23/13
Meeting Date

Topic Online University Study

Bill Number _____ *(if applicable)*

Name Haven Ladd

Amendment Barcode _____ *(if applicable)*

Job Title Partner, Consulting

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Boston MA 02109
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Phone 617-478-7055

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Speaking: ☐ For ☐ Against ☐ Information

Representing _____

Appearing at request of Chair: ☐ Yes ☐ No

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Gap Analysis
Board of Governors' Commission on Higher Education Access and Attainment

Presentation to the Florida Senate Education Committee
January 23, 2013

Jan Ignash, Vice Chancellor for Academic & Student Affairs
State University System, Florida Board of Governors

Committee Membership

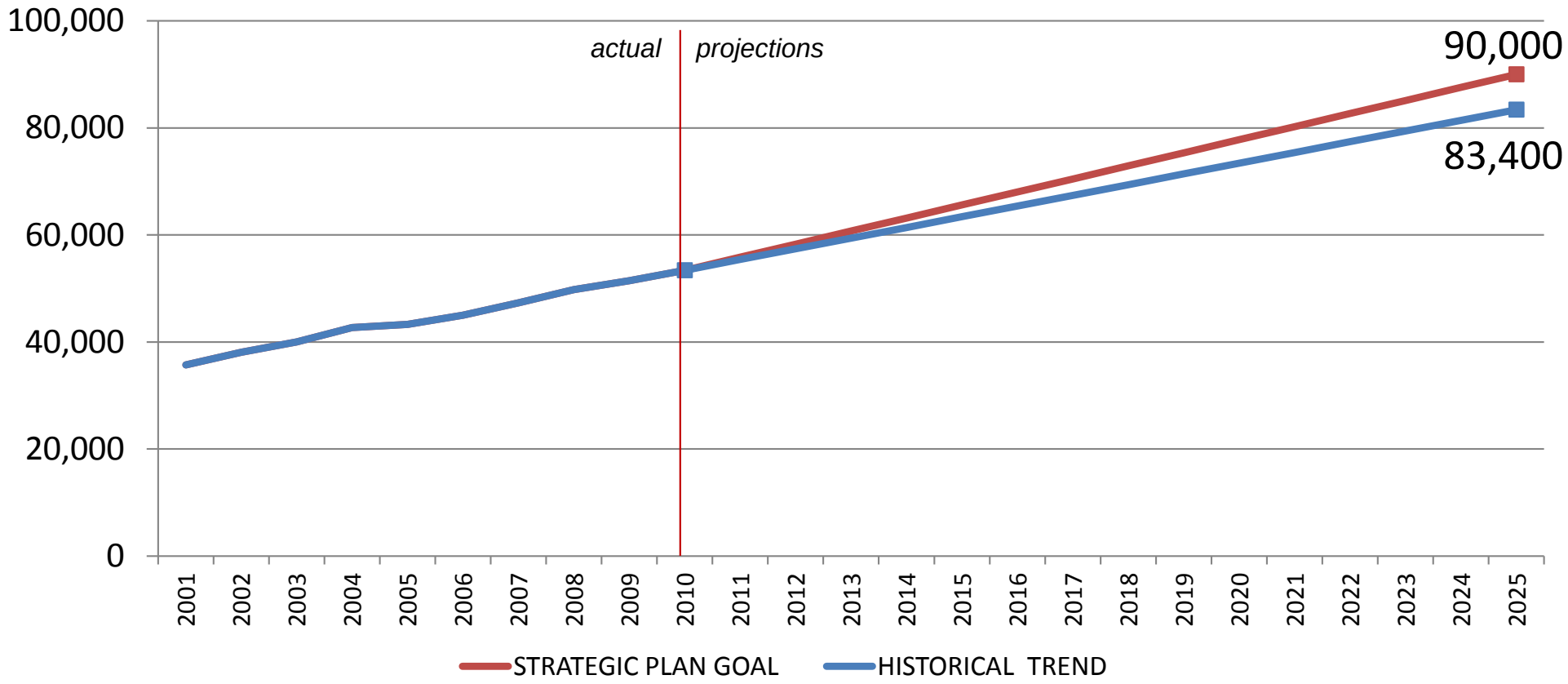
Dean Colson	Chair, Bd. of Governors
Marshall Criser III	Higher Education Coordinating Council and AT&T Florida
Mortez “Mori” Hosseini	Vice Chair, Board of Governors
Thomas G. Kuntz	Member, Bd. of Governors
Susan Pareigis	Florida Council of 100
Former Rep. William L. “Bill” Proctor	Flagler College
Kathleen Shanahan	State Board of Education

Purpose of the Commission

1. Are the Board of Governors' degree projections to the year 2025 the correct numbers?
2. If the numbers are correct, in what program areas and in which regions of the state do we need to grow?
3. Which educational sectors and institutions should grow?

State University System Strategic Plan Goal for Bachelor's Degrees

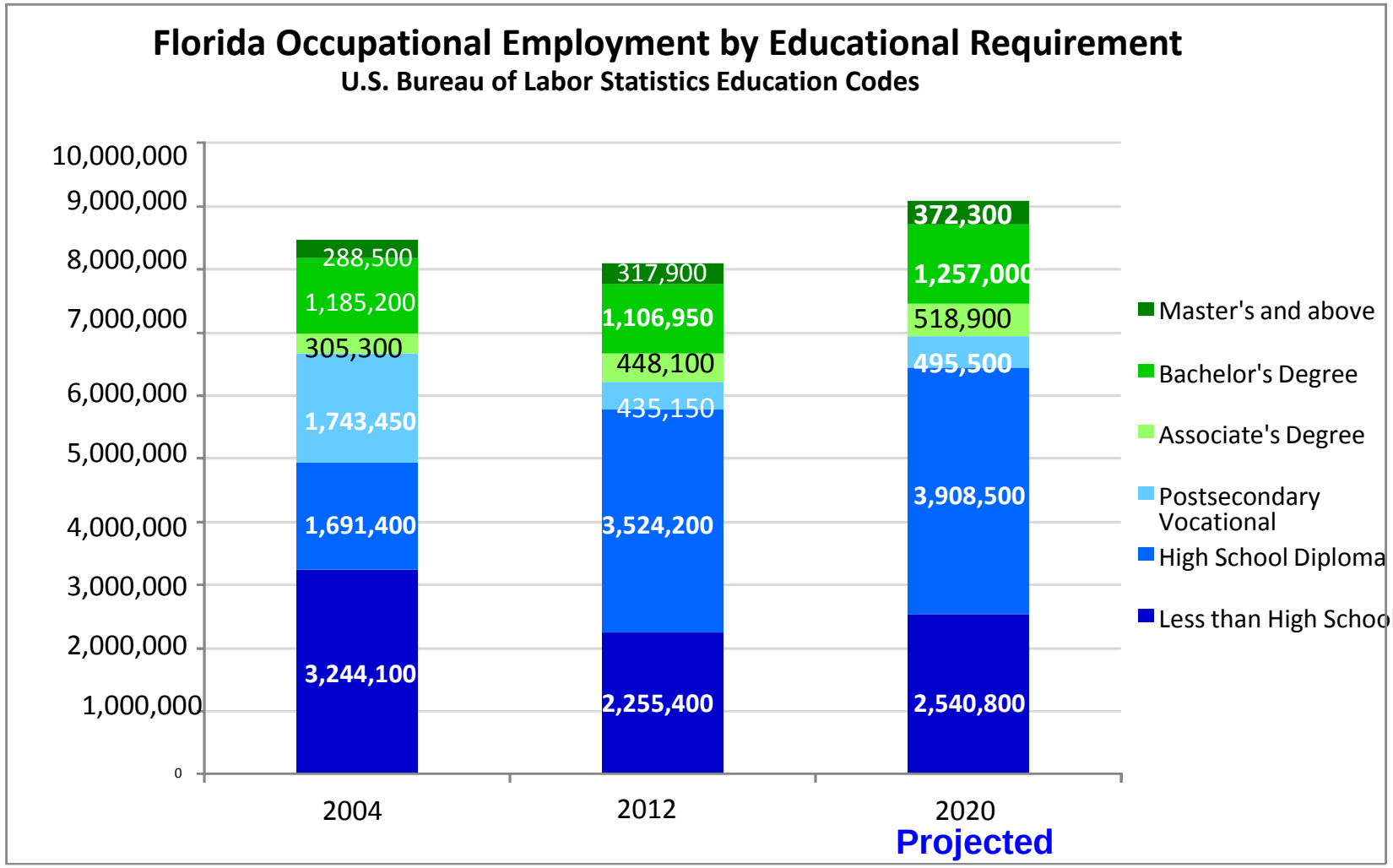
Goal to produce **90,000** bachelor's degrees by the year 2025,
is about 7,000 more than the projection based on the Historical Trend.



Re-cap: Florida's National Rankings

- % of 18-24 yr. olds enrolled in college: 31st
- High school to college continuation rate: 38th
- % of 2010 population with a bachelor's or higher: 37th
- Bachelor's degrees per 18-24yr population: 34th
- Per capita gross domestic product: 40th
- Per capita net earnings: 45th
- Knowledge jobs in 2010 New Economy Index: 33rd

Occupational Employment by Educational Requirement (Projected to 2020)



Source: Florida Dept. of Economic Opportunity, Labor Market Statistics, Ctr., Employment Projections Program, Prepared Oct. 2012

What Program Areas Need Growth? Conducting the Gap Analysis

Key Gap Analysis Questions

Shorter-term

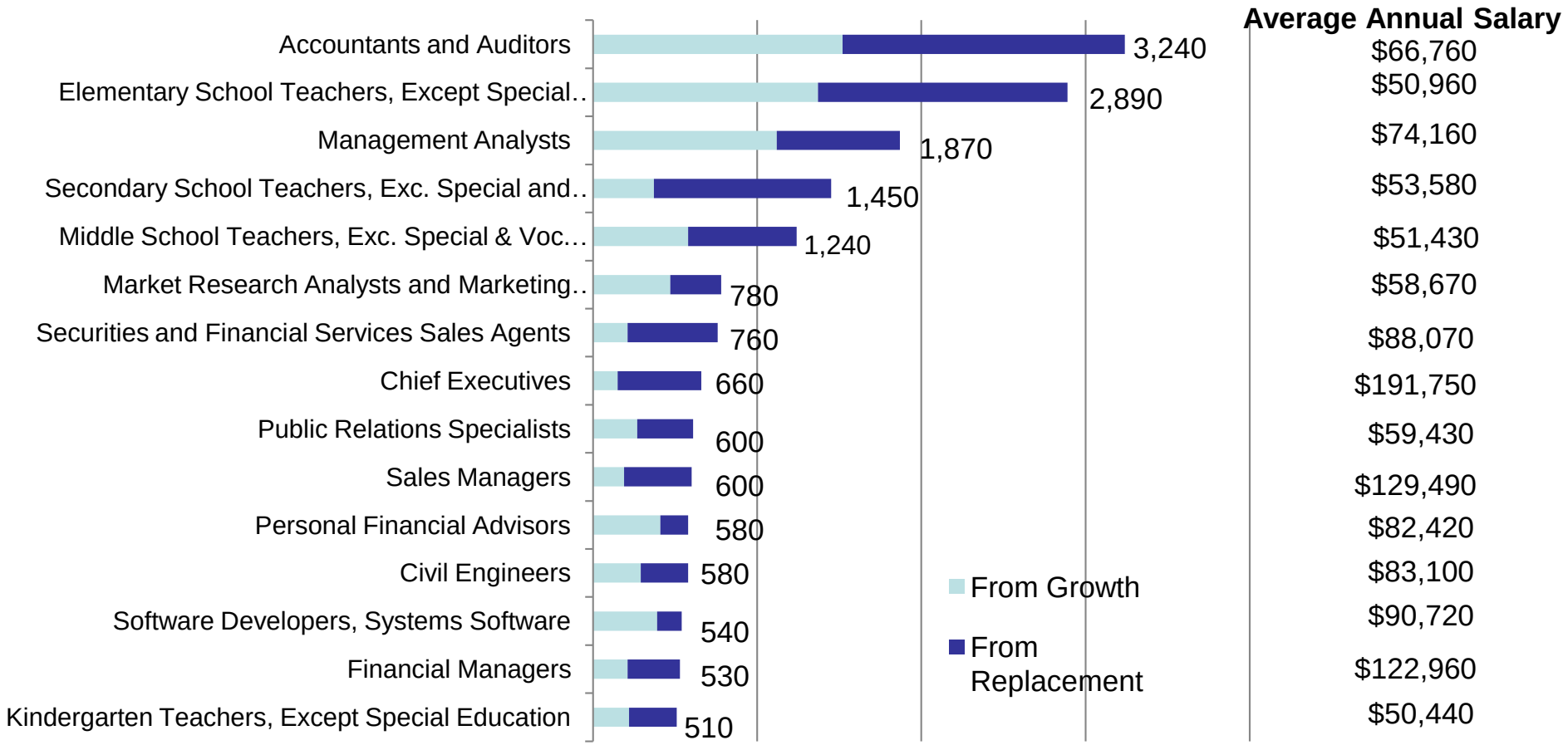
- What industries and occupations are projected to be in greatest demand in Florida through 2020—both statewide and by region?
- What is the gap between projected demand and potential supply for areas of under-supply, such as I.T.—both statewide and by region?
- If we accept BOG degree projections to 2020, what is the potential demand for graduates in top occupations?

Longer-term

- Does the Commission envision a more ambitious future for Florida – with demand for higher levels of education for future workers?

Annual Average Occupational Demand

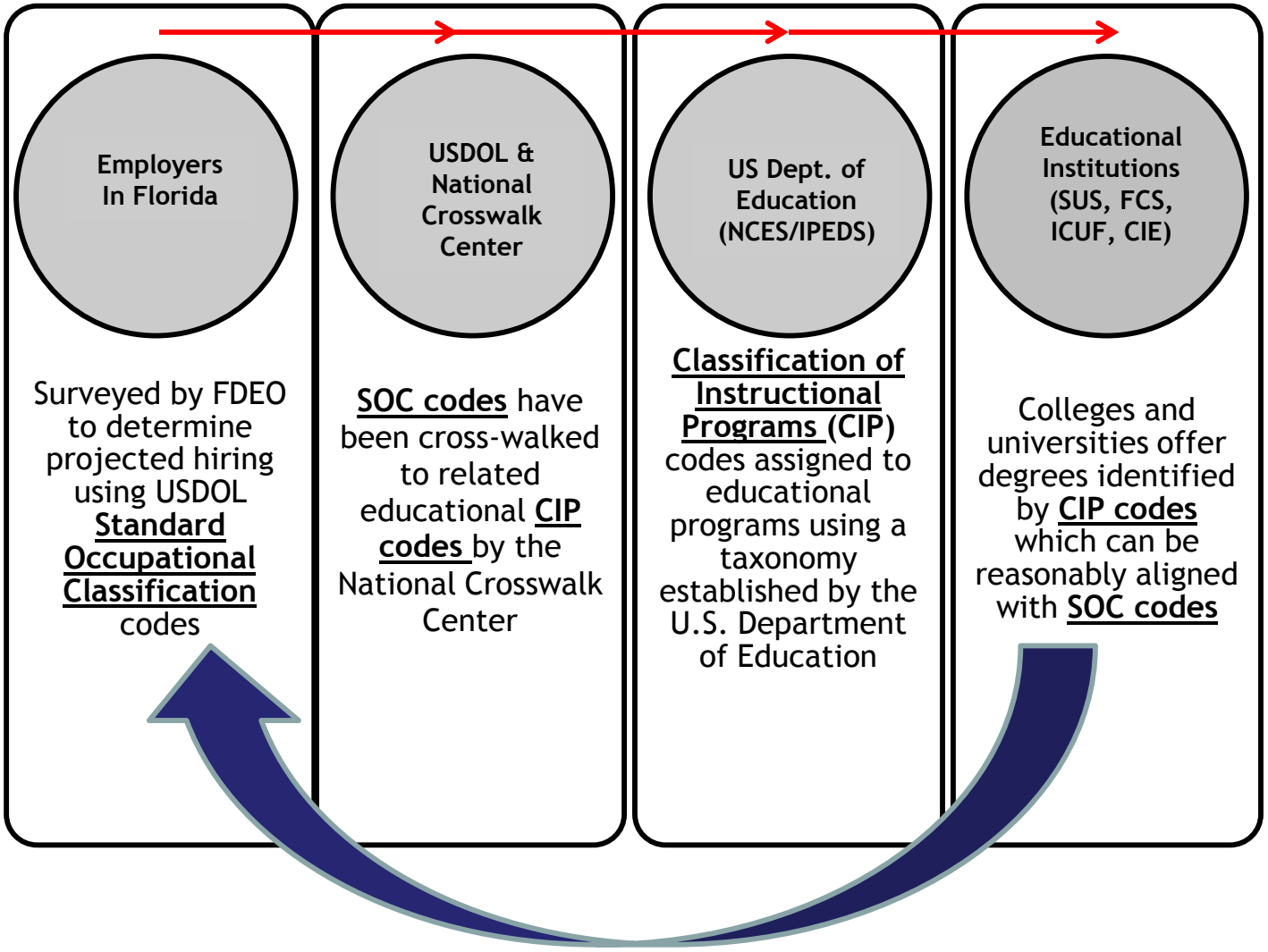
Growth by Specific Occupation (Baccalaureate Level)



Source: Dept. of Economic Opportunity, Labor Market Statistics Ctr., Employment Projections Program, Forecast to 2020, released Sept.2012. NOTE: Data rounded by FL Board of Governors.

Elements of a Demand-Supply Gap Analysis

DEMAND



SUPPLY

Step 1 of Supply-Demand 'Gap' Analysis for Computer Occupations, SOC 15-11 *(as an example)*

1st step: Identify the 6-Digit SOC/CIP relationships for Computer Occupations

SOC Titles & Codes → / Associated Degree CIP Codes ↓	Computer and Information Research Scientists (15-1111)	Computer Systems Analysts (15-1121)	Computer Programmers (15-1131)	Software Developers, Applications (15-1132)	Software Developers, Systems Software (15-1133)	Database Administrators (15-1141)	Network and Computer Systems Architects and Administrators (15-1142)	Computer Support Specialists (15-1150)	Information Security Analysts and Web Developers (15-1179, 15-1122)	Computer Occupations, All Other (15-1199)
	11.0101	11.0201	11.0102	11.0102	11.0101	11.0101	11.0103	11.0101	27.0301	14.3701
	11.0103	11.0202	11.0103	11.0103	11.0802	11.1001	11.0701	11.0301	27.0304	52.1301
	11.0501	11.0203	11.0104	11.0104	11.1003	11.1003	11.0901	11.0401	27.0501	
	11.0901	11.0299	11.0201	11.0201			11.1001	11.0701	27.0502	
		11.0701	11.0202	11.0202			11.1002	11.1005	27.0503	
		11.0803	11.0701	11.0401			11.1003	26.1103	27.0599	
		11.0804	11.0804	11.0701			11.1005	26.1104	52.1304	
		15.1204	14.0901	14.0901			43.0116	30.0801		
		51.0709	14.0903	14.0903				30.1601		
		52.1201	15.1204	15.1204				30.3001		
			26.1103					30.3101		
			51.2706					43.0116		
								51.2706		

CIP codes in RED are associated with more than one SOC code.

Step 2 of Supply-Demand 'Gap' Analysis for Computer Occupations *(as an example)*

2nd Step: Total Projected Demand and Determine Unduplicated Supply

6-DIGIT SOC CODE	6-DIGIT SOC TITLE	PROJECTED DEMAND	DUPLICATED SUPPLY*
15-1111	Computer and Information Research Scientists	18	1,160
15-1121	Computer Systems Analysts	865	1,157
15-1131	Computer Programmers	556	468
15-1132	Software Developers, Applications	651	1,112
15-1133	Software Developers, Systems Software	537	1,118
15-1141	Database Administrators	222	652
15-1142	Network and Computer Systems Architects and Administrators	629	652
15-1179	Information Security Analysts and Web Developers (15-1122)	800	457
15-1799	Computer Occupations, All Other (15-1199)	150	660
4-DIGIT SOC CODE	**4-DIGIT SOC TITLE**	**TOTAL DEMAND**	**UNDUPLICATED SUPPLY**
15-11	**COMPUTER OCCUPATIONS (SOC 15-1100)**	**4,428**	**2,330***

**Note: Due to individual CIP codes being associated with more than one SOC code, considerable duplication of degree graduate counts occur at the six-digit SOC/CIP level. Rolling the analysis up to the four-digit SOC level provides a more accurate Gap Analysis of Demand/Supply.*

Which Targeted Industries Should Be a First Priority for a Gap Analysis?

- Aviation & Aerospace
- Clean Technology
  - Solar
  - Biofuels
  - Storage
  - Ocean
  - Smart Grid
  - Advanced Materials & Products
  - Green Buildings
  - Water
  - Air & Environment
- Financial/Professional Services
- Homeland Security/Defense
- Information Technology
  - Modeling, Simulation, and Training
  - Photonics/Optics
  - Digital Media
  - Software & Computer System Design
  - Computer & Microelectronics
  - Telecommunications
- Life Sciences
  - Biotech
  - Medical Devices
  - Pharmaceuticals
  - Health Care

Workforce Demand

Is Florida's Projected Workforce Demand Competitive with Other States?

2008-2018 JOB PROJECTIONS BY STATE & BY EDUCATION LEVEL

Projected Total Job Openings (New & Replacement) as a Percentage of Total Jobs in 2008

Educational Levels	United States	BIG10	California	Florida	Georgia	Illinois	Michigan	New York	North Carolina	Ohio	Texas
Less than high school	38%	39%	40%	35%	45%	38%	35%	35%	39%	34%	46%
High school diploma or equivalent	29%	28%	28%	25%	33%	28%	26%	23%	28%	25%	35%
Some college, no degree	41%	38%	34%	34%	49%	38%	39%	30%	40%	36%	46%
Postsecondary non-degree award	35%	34%	34%	32%	40%	33%	29%	30%	33%	32%	40%
Associate's degree	33%	32%	30%	29%	34%	34%	30%	27%	33%	31%	36%
Bachelor's degree	38%	35%	36%	32%	41%	35%	32%	28%	35%	32%	45%
Master's degree	40%	39%	39%	38%	48%	38%	35%	34%	36%	34%	51%
Doctoral or professional degree	38%	35%	37%	33%	38%	34%	32%	27%	41%	32%	42%
ALL LEVELS	**34%**	**33%**	**34%**	**30%**	**38%**	**33%**	**30%**	**28%**	**33%**	**29%**	**40%**

More than 105% of BIG 10 | +/-5% of BIG 10 | Less than 95% of BIG 10

SOURCE: Projections Central - State Occupational Projections

Questions

<u>Contact Information</u>

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Board of Governors

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Web Link: http://flbog.edu/about/commission.php

THE FLORIDA SENATE

APPEARANCE RECORD

(Deliver BOTH copies of this form to the Senator or Senate Professional Staff conducting the meeting)

1/23/13
Meeting Date

Topic Gap Analysis – Higher Education Access + Attainment Commission Work of the BOG

Bill Number _____ *(if applicable)*

Name Jan Ignash

Amendment Barcode _____ *(if applicable)*

Job Title Vice Chancellor

Address 325 W. Gaines, Bd. of Governors, SUS *Street*

Phone 850-245-9716

Tallahassee *City* FL *State* 32399 *Zip*

E-mail jan.ignash@flbog.edu

Speaking: ☐ For ☐ Against ☑ Information

Representing Board of Governors

Appearing at request of Chair: ☑ Yes ☐ No

Lobbyist registered with Legislature: ☐ Yes ☐ No

While it is a Senate tradition to encourage public testimony, time may not permit all persons wishing to speak to be heard at this meeting. Those who do speak may be asked to limit their remarks so that as many persons as possible can be heard.

This form is part of the public record for this meeting.

S-001 (10/20/11)

CourtSmart Tag Report

Room: KN 412 **Case:** **Type:**
Caption: Senate Committee on Education **Judge:**

Started: 1/23/2013 8:33:32 AM
Ends: 1/23/2013 10:04:33 AM Length: 01:31:02

8:33:50 AM Administrative Assistant calls the roll
8:33:33 AM Chair introduces Dr. Jan Ignash
8:34:18 AM Chair introduces Commissioner Bennett
8:34:29 AM Chair welcomes Commissioner Bennett
8:34:49 AM Commissioner Bennett
8:36:05 AM Chair asks Commissioner Bennett to answer questions from committee
8:36:17 AM Chair recognizes Senator Bullard for question
8:36:20 AM Senator Bullard with comments and questions
8:37:04 AM Commissioner Bennett responding to questions
8:39:31 AM Senator Bullard with question
8:40:52 AM Commissioner Bennett responding to question
8:44:05 AM Chair comments about agenda
8:44:27 AM Commissioner Bennett responding with comments
8:47:10 AM Chair recognizes Senator Sachs for questions
8:47:12 AM Senator Sachs with comments and questions
8:48:40 AM Commissioner Bennett responding to questions
8:47:12 AM Senator Sachs with comments
8:48:40 AM Commissioner Bennett responding to comments
8:50:44 AM Senator Sachs with comments
8:51:35 AM Chair recognizes Senator Brandes for question
8:51:37 AM Senator Brandes with question
8:51:52 AM Commissioner Bennett responding to question
8:54:32 AM Chair recognizes Senator Montford for question
8:54:38 AM Senator Montford with comments and questions
8:56:03 AM Commissioner Bennett responding to question
9:01:05 AM Chair recognizes Senator Stargel for question
9:01:08 AM Senator Stargel for question
9:02:05 AM Commissioner Bennett responding to question
9:07:10 AM Chair comments and recognizes Sen. Montford for question
9:07:17 AM Senator Montford for question
9:07:37 AM Commissioner Bennett responding to question
9:09:00 AM Chair recognizes Sen. Bullard for question
9:09:07 AM Senator Bullard for question
9:11:08 AM Commissioner Bennett responding to question
9:13:08 AM Chair thanks Commissioner Bennett for speaking
9:13:42 AM Commissioner Bennett thanks the committee
9:13:53 AM Chair explaining the order of the agenda
9:14:01 AM Chair introduces Dr. Jan Ignash
9:14:24 AM Dr. Jan Ignash presentation
9:27:37 AM Chair ask Dr. Ignash to outline presentation and conclude
9:27:50 AM Dr. Ignash continues presentation
9:29:42 AM Chair recognizes Senator Bullard for question
9:29:48 AM Senator Bullard for question
9:30:46 AM Dr. Ignash responding to question
9:31:26 AM Chair asks if any further questions
9:31:46 AM Chair comments about online education
9:32:20 AM Chair introduces Vice Chancellor Nancy McKee
9:32:28 AM Nancy McKee presentation
9:34:43 AM Chair introduces Robert Lytle to proceed presentation
9:35:13 AM Robert Lytle presenation
9:48:06 AM Chair recognizes Sen. Montford for questions
9:48:12 AM Senator Montford for question

9:48:48 AM Robert Lytle responds to question
9:49:27 AM Senator Montford for question
9:49:48 AM Robert Lytle responds to question
9:49:52 AM Robert Lytle proceeds with presentation
9:51:30 AM Senator Montford for comment
9:52:07 AM Robert Lytle responds to question
9:53:18 AM Chair recognizes Senator Brandes for comments and questions
9:54:15 AM Robert Lytle responds to question
9:56:07 AM Senator Brandes for questions
9:56:27 AM Robert Lytle responds to question
9:57:18 AM Chair recognizes Senator Sachs for questions
9:57:20 AM Senator Sachs with question
9:58:34 AM Robert Lytle responds to question
9:59:43 AM Senator Sachs with question
10:00:15 AM Robert Lytle responds to question
10:00:22 AM Chair makes comments
10:00:45 AM Chair recognizes Senator Bullard for questions
10:00:46 AM Senator Bullard for question
10:01:04 AM Robert Lytle responds to question
10:01:15 AM Senator Bullard for question
10:01:44 AM Robert Lytle responds to question
10:02:00 AM Haven Ladd presenter w/ Parthenon Group makes comment
10:02:54 AM Chair Legg for comments
10:04:30 AM Senator Montford moves we rise