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# The Florida Sports Economy

**Economic Impacts** 

FY19/20 - FY20/21

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# INTRODUCTION RESEARCH OVERVIEW

Sports are an important driver of visitation and economic activity in the State of Florida that supports local jobs and income.

The Florida Sports Foundation (FSF) commissioned Tourism Economics to conduct a comprehensive economic impact analysis to quantify the significant contribution of the Florida sports economy, which includes the following segments:

- Amateur and leisure sports
- Professional sports
- Collegiate athleticsEquine industry
- Retail sales

The study calculates the impacts for FY19/20 and FY20/21 (a fiscal year runs from July 1 through June 30).

To quantify the economic impacts, Tourism Economics prepared a comprehensive model using multiple primary and secondary data sources to quantify the impacts arising from the spending at sports venues and at off-site establishments by visitors attending a sporting event in Florida, as well

as the operational expenditures by teams, venues, tournament operators, and event organizers.

Impact modeling is based on an IMPLAN Input-Output (I-O) model for the State of Florida. The results of this study show the scope of the Florida sport's industry impact in terms of direct visitor spending, as well as total economic impacts, including employment, household income, and fiscal (tax) impacts.

# **TERMS & DEFINITIONS**

The following terms were used in the report to define the Florida Sports Economy and its visitor patterns:

- · Non-resident Visitors: visitors to Florida who are not residents of Florida
- Resident Visitors: visitors to a region in Florida who are from another Florida region (typically more than 50 miles away)
- Non-Resident Sports Traveler Spending: spending in the State of Florida by sports travelers who are not residents of Florida
- Sports Economic Footprint: spending in the State of Florida by resident and non-resident sports travelers, as well as operational spending by teams, sports venues, and event organizers.



# INTRODUCTION SUMMARY IMPACTS

# THE FLORIDA SPORTS ECONOMY

SUMMARY ECONOMIC IMPACTS



28.1M

non-resident visitors

Florida's sports industry accounted for nearly 28.1 million non-resident visitors to the state of Florida, representing 14% of all Florida tourism



purchases

Attracted \$25.2 billion in purchases of goods and services from out-of-state buyers and visitors



\$71.7B

direct sales

Generated \$71.7 billion in direct sales across the Florida economy



\$146.5B

total sales

Generated \$146.5 billion in total sales across the Florida economy, including indirect and induced



978,200

average annualized statewide jobs

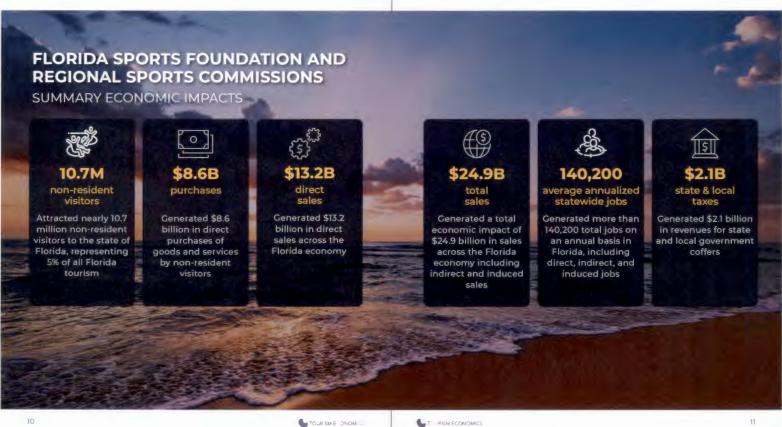
Accounted for 978,200 jobs on an annual basis in Florida, including direct, indirect, and induced jobs



state & local taxes

Generated \$13.9 billion in revenues for state and local government coffers

# INTRODUCTION **SUMMARY IMPACTS**





The Florida Sports Foundation is a 501(c)3 not-for-profit corporation serving as the states lead sports development and promotional organization.

The mission of the Florida Sports Foundation is to:

- Assist Florida's communities with securing, hosting and retaining sporting events and sports related business that generate significant economic impact and sports-related tourism for the state of Florida through the Foundation's grant programs, legislative initiatives and Industry Partner service, recognition and development.
- Provide the citizens of Florida with participation opportunities in Florida's Sunshine State Games and Florida Senior Games events.
- Serve as Florida's leading resource for Sports Tourism research and facts.
- Assist in the promotion of targeted leisure sport industries in Florida.
- Assist National and Florida State Governing Bodies to promote amateur sport development through Florida's Sunshine State Games and hosting events in Florida.





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# RESEARCH APPROACH DIRECT IMPACTS

### **Direct Impact Approach**

The first step in economic impact analysis is to estimate direct spending impacts for each of the segments of the Florida sports economy. The direct spending impacts were divided into the following two types:

- 1. Non-Resident Sports Traveler Spending, spending by visitors to Florida who are not residents of Florida
- Sports Economic Footprint: spending by resident and non-resident sports travelers, as well as operational spending Resident visitors are visitors to a region in Florida who are from another Florida region (typically more than 50 miles away)

These direct impacts ultimately serve as the inputs for the economic impact model

	Non-Resident Sports Traveler Spending	Sports Economic Footprint
Florida sports economy	\$25.2	\$71.7
Amateur and leisure sports	\$23.3	\$57.2
Professional sports	\$1.0	\$4.7
Collegiate athletics	\$0.5	\$2.5
Equine industry	\$0.4	\$2.5
Retail sales		\$4.7



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# **RESEARCH APPROACH** ECONOMIC IMPACT METHODOLOGY

Our analysis of economic impacts begins with direct spending (including local operating investment and resident and non-resident sports traveler spending) and also considers the downstream effects of this injection of spending into the local economy. To determine Florida sports' total economic impact, we input direct spending into a model of the state economy of Florida created in IMPLAN, which traces the full extent of industry impacts. 3MPLAN is recognized as an industry standard in local-level input-output

An I-O model represents a profile of an economy by measuring the relationships among industries and consumers and produces estimates of the following components

- 1. Direct impacts Local operational spending by sports organizations and teams and off-site spending by resident and non-resident visitors create direct economic value within a discreet group of sectors (e.g. recreation, transportation). This supports a relative proportion of spending, jobs, wages, and taxes within each sector.
- 2. Indirect impacts Each directly affected sector also purchases goods and services as inputs (e.g. food wholesalers, utilities) into production. These impacts are called indirect impacts
- 3. Induced impacts Lastly, the induced impact is generated when employees whose wages are generated either directly or indirectly by off-site spending and local operating investment, spend those wages in the local economy.

IMPLAN calculates three levels of impact - direct, indirect and induced - for a broad set of indicators These include the following

- Spending
- · Federal Taxes
- Wages
- · State Taxes
- · Employment
- Local Taxes

TOURISM ECONOMICS



# ECONOMIC IMPACT SUMMARY

# The Florida sports economy generated \$146.5 billion in total output.

The total economic impact of the Florida sports economy amounted to \$146.5 billion in FY19/20 and FY20/21, including spending by resident and non-resident sport travelers, as well as operational spending. This total economic impact of \$146.5 billion supported 978,200 part-time and full-time jobs on an annual basis and generated \$13.9 billion in state and local taxes. The table on the accompanying page outlines the summary economic impacts of the Florida sports economy for FY19/20 and FY20/21.

# Summary Economic Impacts: Florida Sports Economy

\$ billions and jobs

	Total Output	Annualized Jobs	Total State & Local Taxes
Sports economic footprint	\$146.5	978,200	\$13.9
Amateur and leisure sports	\$113.6	716,300	\$10.5
Professional sports	\$10.2	74,200	\$1.0
Collegiate athletics	\$5.5	41,500	\$0.6
Equine industry	\$6.1	51,600	\$0.7
Retail sales	\$11.2	94,700	\$1.2

Source Tourism Economics Note sums may not total due to rounding Summary Economic Impacts: Florida Sports Economy FY19/20 to FY20/21

Millions of sports travelers, \$ billions, and jobs

	FY19/20	FY20/21
Total economic footprint		
Direct output (\$ billions)	\$35.6	\$36.1
Amateur and leisure sports	\$27.8	\$29.4
Professional sports	\$2.7	\$2.0
Collegiate athletics	\$1.6	\$0.9
Equine industry	\$1.2	\$1.4
Retail sales	\$2.3	\$2.4
Total output (\$ billions)	\$72.8	\$73.7
Amateur and leisure sports	\$55.4	\$58.2
Professional sports	\$5.7	\$4 5
Collegiate ethletics	53.4	\$2.1
Equine industry	\$2.8	\$3.3
Retail sales	\$5.4	\$5.7
Total jobs	963,600	992,700
Amateur and leisure sports	695,400	737,200
Professional sports	80,600	67,700
Collegiate athletics	48,900	34,100
Equine industry	47,300	55,80
Retail sales	91,400	97,90
Total state & local taxes (\$ billions)	\$6.9	\$7.0
Amateur and leisure sports	\$5.1	\$5.4
Professional sports	\$0.6	\$0.5
Collegiate athletics	\$0.3	\$0.
Equine industry	\$0.3	SO.4
Retail sales	\$0.6	\$0.6
	FY19/20	FY20/21
Total sports travelers (millions of travelers)	36.8	33.3
Non-resident sports travelers	14.3	13.6
(millions of travelers)		
Amateur and leisure sports	12.6	13.1
Professional sports	0.9	0.0
Collegiate athletics	0.8	
Resident sports travelers	22.4	19.5
(millions of travelers)	17.7	18.
Amateur and leisure sports	3.0:	10.
Professional sports		0.0
Collegiate athletics		

Note: sums may not total due to rounding

TOURISM ECONOMICS

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# FLORIDA SPORTS INDUSTRY SUMMARY ECONOMIC IMPACTS

### DIRECT SPENDING IMPACTS

Sports generated significant economic impacts in the State of Florida as teams, venues, and event operators spent money in the Florida economy to sustain operations, including spending on payroll, marketing, and general and administrative expenses.

In addition, resident and non-resident visitors that attended or participated in a sporting event in Florida spent money while at the sporting event and at off-site establishments during their stay, including at local restaurants, hotels, retailers, and recreation/entertainment venues.

Total direct spending associated with the sports economy in Florida amounted to \$71.7 billion.

## **SUMMARY DIRECT IMPACTS**



\$28.5B

Florida Sports Industry Local Operational Spending



\$43.2B

Off-Site Spending by Florida Sports Industry Participants and Attendees



\$71.7B

Direct Sports Economic Footprint of Florida Sports Industry

### TOTAL ECONOMIC IMPACTS

The Florida sports industry's direct spending impact of \$71.7 billion generated a total economic impact of \$146.5 billion in the Florida economy, which supported 978,200 part-time and full-time jobs on an annual basis and generated \$13.9 billion in state and local taxes.



# \$146.5 BILLION

Total Economic Impact of Florida Sports Industry





# AMATEUR & LEISURE SPORTS SUMMARY ECONOMIC IMPACTS

### **DIRECT SPENDING IMPACTS**

Amateur and leisure sports generated significant economic impacts in the State of Florida as venues and event operators spent money in the Florida economy to sustain operations, including spending on payroll, marketing, and general and administrative expenses.

In addition, resident and non-resident visitors that attended or participated in amateur and leisure sports in Florida spent money while at the sporting event and at off-site establishments during their stay, including at local restaurants, hotels, retailers, and recreation/entertainment venues.

Total direct spending associated with amateur and leisure sports in Florida amounted to \$57.2 billion.

## **SUMMARY DIRECT IMPACTS**



\$16.9B

Amatuer & Leisure Sports Local Operational Spending



\$40.3B =

Off-Site Spending by Amateur & Leisure Sports Participants and Attendees



\$57.2B

Direct Sports Economic Footprint of Amateur & Leisure Sports

# TOTAL ECONOMIC IMPACTS

Amateur and leisure sports' direct spending impact of \$57.2 billion generated a total economic impact of \$113.6 billion in the Florida economy, which supported 716,300 part-time and full-time jobs on an annual basis and generated \$10.5 billion in state and local taxes.



\$113.6 BILLION

Total Economic Impact of Amateur & Leisure Sports



In FY19/20 and FY20/21, amateur and leisure sports had a direct sports economic footprint of \$57.2 billion, including off-site spending by resident and non-resident visitors and local operational spending. This spending generated a total statewide economic impact of \$113.6 billion and supported 716,300 total jobs on an annual basis in Florida. The total economic impact of \$113.6 billion generated approximately \$10.5 billion in total state and local tax revenues.



\$57.2B

Direct Sports Economic Footprint



\$113.6B

Total Economic



716,300

Average Annualized Jobs Generated



Total State & Local Tax Revenues



# PROFESSIONAL SPORTS SUMMARY ECONOMIC IMPACTS

### DIRECT SPENDING IMPACTS

Professional sports generated significant economic impacts in the State of Florida as teams and venues spent money in the Florida economy to sustain operations, including spending on payroll, marketing, and general and administrative expenses.

In addition, resident and non-resident visitors that attended a professional sporting event in Florida spent money while at the sporting event and at off-site establishments during their stay, including at local restaurants, hotels, retailers, and recreation/entertainment venues.

Total direct spending associated with professional sports in Florida amounted to \$4.7 billion.

# SUMMARY DIRECT IMPACTS



\$2.7B

Professional Sports Local Operational Spending



\$2.1B

Off-Site Spending by Professional Sports Attendees



\$4.7B

Direct Sports Economic Footprint of Professional Sports

# TOTAL ECONOMIC IMPACTS

Professional sports' direct spending impact of \$4.7 billion generated a total economic impact of \$10.2 billion in the Florida economy, which supported 74,200 part-time and full-time jobs on an annual basis and generated \$1.0 billion in state and local taxes.



\$10.2 BILLION

Total Economic Impact of Professional Sports



# COLLEGIATE ATHLETICS SUMMARY ECONOMIC IMPACTS

## **DIRECT SPENDING IMPACTS**

Collegiate athletics generated significant economic impacts in the State of Florida as collegiate athletic departments spent money in the Florida economy to sustain operations, including spending on payroll, marketing, and general and administrative expenses.

In addition, resident and non-resident visitors that attended a collegiate sporting event in Florida spent money while at the sporting event and at off-site establishments during their stay, including at local restaurants, hotels, retailers, and recreation/entertainment venues.

Total direct spending associated with collegiate athletics in Florida amounted to \$2.5 billion.

# SUMMARY DIRECT IMPACTS



\$1.7B

Collegiate Athletics Local Operational Spending



\$810M

Off-Site Spending by Collegiate Athletics Attendees



\$2.5B

Direct Sports Economic Footprint of Collegiate Athletics

# TOTAL ECONOMIC IMPACTS

Collegiate athletics' direct spending impact of \$2.5 billion generated a total economic impact of \$5.5 billion in the Florida economy, which supported 41,500 part-time and full-time jobs on an annual basis and generated \$559 million in state and local taxes.



\$5.5 BILLION

Total Economic Impact of Collegiate Athletics



# **EQUINE INDUSTRY**SUMMARY ECONOMIC IMPACTS

## **DIRECT SPENDING IMPACTS**

The equine industry generated significant economic impacts in the State of Florida as breeders, horse parks, and farms spent money in the Florida economy to sustain operations, including spending on payroll, marketing, and general and administrative expenses.

In addition, resident and non-resident visitors that attended an equine event in Florida spent money while at the equine event and at off-site establishments during their stay, including at local restaurants, hotels, retailers, and recreation/entertainment venues.

Total direct spending associated with the equine industry in Florida amounted to \$2.5 billion.

# SUMMARY DIRECT IMPACTS



\$2.5B

Direct Sports Economic Footprint of the Equine Industry



# TOTAL ECONOMIC IMPACTS

The equine industry's direct spending impact of \$2.5 billion generated a total economic impact of \$6.1 billion in the Florida economy, which supported \$1,600 part-time and full-time jobs on an annual basis and generated \$673 million in state and local taxes.



# \$6.1 BILLION

Total Economic Impact of the Equine Industry



# RETAIL SALES SUMMARY ECONOMIC IMPACTS

## **DIRECT SPENDING IMPACTS**

The sports retail industry generated significant economic impacts in the State of Florida as resident and non-resident visitors spent substantial amounts of money on sports clothing, footwear, and equipment.

Total direct spending associated with retail sales in Florida amounted to \$4.7 billion.

# **SUMMARY DIRECT IMPACTS**



\$4.7B

Direct Sports Economic Footprint of Retail Sales

### TOTAL ECONOMIC IMPACTS

The direct spending impact of \$4.7 billion generated a total economic impact of \$11.2 billion in the Florida economy, which supported 94,700 part-time and full-time jobs on an annual basis and generated \$1.2 billion in state and local taxes.



• \$11.2 BILLION

Total Economic Impact of Retail Sales





# AMATEUR & LEISURE SPORTS

The amateur and leisure sports component of the Florida sports economy generated \$113.6 billion in total output.

The amateur and leisure sports segment of the Florida sports economy is composed of the following six sub-segments:

- Florida Sports Foundation and regional commissions
- · Golf
- Hunting
- Fishing
- Wildlife viewing
- · Parks and recreation

# DETAILED ECONOMIC IMPACTS: AMATEUR & LEISURE SPORTS

\$ millions and jobs

	Out	put	Jo	bs	State & Loc	cal Taxes
	Direct	Total	Direct	Total	Direct	Total
Sports Economic Footprint	\$57,227	\$113,580	524,200	716,300	\$6,719	\$10,468
FSF and regional commissions	\$13,176	\$24,944	103,200	140,200	\$1,355	\$2,142
Golf	S21, <b>2</b> 71	\$44,167	221,300	303,300	\$2,756	\$4,274
Hunting	\$610	\$1,038	3,400	4,700	\$58	\$86
Fishing	\$9,237	\$16,414	59,800	81,200	\$872	\$1,354
Wildlife viewing	\$7,015	\$12,885	49,600	67,000	\$656	\$1,048
Parks and recreation	\$5,917	\$14,132	86,900	119,800	\$1,022	\$1,565

### **SUMMARY ECONOMIC IMPACTS: AMATEUR & LEISURE SPORTS**

In FY19/20 and FY20/21, amateur and leisure sports had a direct sports economic footprint of \$57.2 billion, including off-site spending by resident and non-resident visitors and local operational spending. This spending generated a total statewide economic impact of \$113.6 billion and supported 716,300 total jobs on an annual basis in Florida. The total economic impact of \$113.6 billion generated approximately \$10.5 billion in total state and local tax



Direct Sports
Economic

25

Total Economic Impact

Average Annualized Jobs Generated



\$10.5B Total State & Local





# AMATEUR & LEISURE SPORTS FSF AND REGIONAL COMMISSIONS

### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 25.7 million resident and non-resident sports travelers attended a sporting event in Florida promoted or developed by FSF or a regional commission.

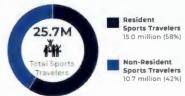
There are more than 30 regional sports commissions in Florida responsible for promoting and marketing their community as a sports tourism destination Each of these destinations host, and in some cases develops, amateur and leisure sporting events

In addition to the regional sports commissions, the FSF promotes and develops sporting events for the State of Florida The FSF offers a grant program that supports sporting events in Florida and also is responsible for the Sunshine State Games and the Florida Senior Games

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# Sports Travelers by Type: FSF & Regional Commissions

Number of travelers and percentage share



In FY19/20 and FY20/21, 25.7 million resident and non-resident sports travelers attended (either as a participant or spectator) a sporting event promoted or developed by FSF or a regional commission – 10.7 million or 42% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for the sporting events.

# AMATEUR & LEISURE SPORTS FSF AND REGIONAL COMMISSIONS

Non-resident sports travelers spent \$8.6 billion across a wide range of sectors in Florida in FY19/20 and FY20/21.

Non-Resident Sports

Traveler Spending

The 10.7 million non-resident sports travelers spent \$8.6 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues.

The off-site spending by non-resident sports travelers attending a sporting event promoted or developed by FSF or a regional commission was spread across a number of industries, including \$2.3 billion in spending in the food and beverage industry, \$2.2 billion in the lodging industry, \$1.6 billion in the recreation and entertainment industry, \$1.4 billion in retail, and \$1.1 billion in local transportation.



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# AMATEUR & LEISURE SPORTS FSF AND REGIONAL COMMISSIONS

### **Sports Economic Footprint**

Resident and non-resident sports travelers, event organizers, and venues across Florida spent \$13.2 billion across a wide range of sectors in FY19/20 and FY20/21.

The 25.7 million resident and nonresident sports travelers, event organizers, and venues spent \$13.2 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at sports facilities during the sporting events.

The spending by resident and nonresident sports travelers, event organizers, and venues was spread across a number of industries, including \$3.2 billion in the lodging industry, \$3.1 billion in spending in the food and beverage industry, \$2.1 billion in the recreation and entertainment industry, \$1.8 billion in retail, \$1.5 billion in loost a transportation, and \$1.4 billion in operational spending.



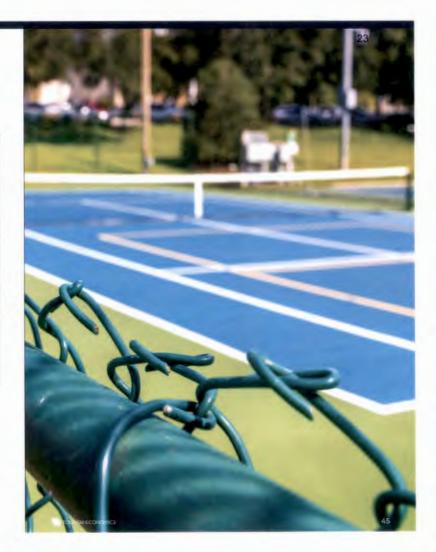
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# AMATEUR & LEISURE SPORTS FSF AND REGIONAL COMMISSIONS

# **Economic Impact Summary: FSF & Regional Commissions**

	FY19/20	FY20/21
ports travelers nillions of travelers)	12.5	13.2
Non-Resident	5.1	5.6
Resident	7.4	7.6
ports economic footprint 6 millions and jobs)		
Direct output	\$6,165	\$7,012
Total output	\$11,721	\$13,223
Total jobs	131,420	149,070
Total state & local taxes	\$1,005	\$1,137





# **AMATEUR & LEISURE SPORTS** GOLF

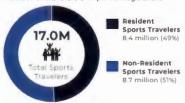
### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 17.0 million resident and non-resident sports travelers played golf or attended a professional golf tournament in Florida.

Golf, which includes both leisure and professional golf, is a major contributor to the Florida economy. The state's subtropical climate allows golfers to play year-round In addition to paying to play golf or to attend a professional golf tournament, golf visitors also spent money on golf supplies as well as tourism related expenditures (i e lodging, food and beverage, retail, entertainment, and transportation) Golf courses and tournament operators also spent money on operating the facilities and



Sports Travelers by Type: Golf



In FY19/20 and FY20/21, 17.0 million resident and non-resident sports travelers played golf or attended a professional golf tournament in Florida – 8.7 million or 51% of which originated from outside the State of Florida These visitors generated incremental spending in the host market economies that would not have occurred but for golf

# **AMATEUR & LEISURE SPORTS** GOLF

### **Non-Resident Sports Traveler Impacts**

Non-resident golf travelers spent \$7.0 billion across a wide range of sectors in Florida in FY19/20 and FY20/21.

The 8.7 million non-resident golf travelers spent \$7.0 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues.

The off-site spending by non-resident golf travelers was spread across a number of industries, including \$1.9 billion in the lodging industry, \$1.7 billion in spending in the food and beverage industry, \$1.3 billion in retail, \$1.2 billion in the recreation and entertainment industry, and \$842 million in local transportation.



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# AMATEUR & LEISURE SPORTS GOLF

### **Sports Economic Footprint**

Resident and non-resident golf travelers, golf tournament operators, and golf courses across Florida spent \$21.3 billion across a wide range of sectors in FY19/20 and FY20/21.

The 17.0 million resident and nonresident golf travelers, golf tournament operators, and golf courses spent \$21.3 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at golf courses and golf tournaments.

The spending by resident and nonresident golf travelers, golf tournament operators, and golf courses was spread across a number of industries, including \$9.6 billion in operational spending, \$3.0 billion in the lodging industry, \$2.9 billion in spending in the food and beverage industry, \$2.3 billion in retail, \$2.1 billion in the recreation and entertainment industry, and \$1.4 billion in local transportation.





# AMATEUR & LEISURE SPORTS GOLF

	FY19/20	FY20/21	
Sports travelers (millions of travelers)	8.5	8.5	
Non-Resident	44	4.3	
Resident		4.2	
Sports economic footprint (\$ millions and jobs)			
Direct output	\$10,526	\$10,745	
Total output	\$21,923	\$22,244	
Total jobs	299,170	307,430	
Total state & local taxes	\$2,122	\$2,152	





# AMATEUR & LEISURE SPORTS HUNTING

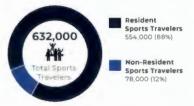
# **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 632,000 resident and non-resident sports travelers hunted in Florida.

Hunting is a popular fall and winter sport in Florida, particularly in the Northwest part of the state, for both Florida residents and visitors. Visitors that traveled to Florida or within Florida to hunt spent money on hunting supplies and tourism related expenditures (i.e. lodging, food and beverage, retail, entertainment, and transportation).

In FY19/20 and FY20/21, 632,000 resident and nonresident sports travelers hunted in Florida – 78,000 or 12% of which originated from outside the State of Florida These visitors generated incrementa spending in the host market economies that would not have occurred but for hunting

# **Sports Travelers by Type: Hunting**Number of travelers and percentage share



# AMATEUR & LEISURE SPORTS HUNTING

### Non-Resident Sports Traveler Spending

Non-resident hunters spent \$99.6 million across a wide range of sectors in Florida in FY19/20 and FY20/21.

The 78,000 non-resident hunters spent \$99.6 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident hunters was spread across a number of industries, including \$42.9 million in retail, \$20.1 million in the lodging industry, \$17.7 million in spending in the food and beverage industry, \$10.3 million in the recreation and entertainment industry, and \$8.5 million in local transportation.



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# AMATEUR & LEISURE SPORTS HUNTING

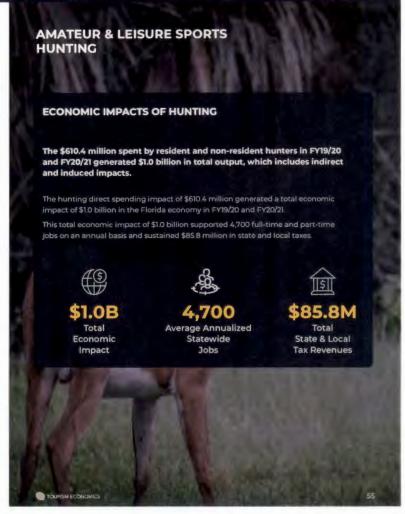
### **Sports Economic Footprint**

Resident and non-resident hunters spent \$610.4 million across a wide range of sectors in FY19/20 and FY20/21.

The 632,000 resident and non-resident hunters spent \$610.4 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

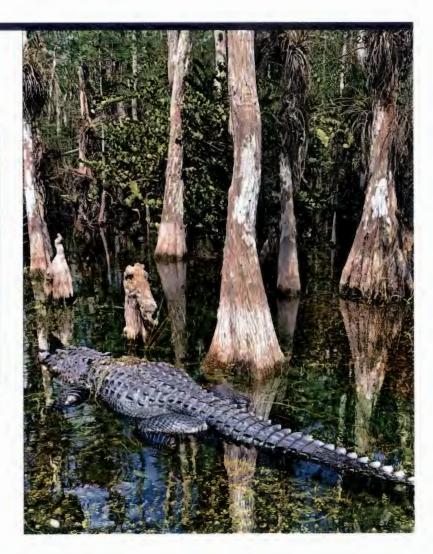
The spending by resident and nonresident hunters was spread across a number of industries, including \$260.9 million in retail, \$148.4 million in the lodging industry, \$97.5 million in spending in the food and beverage industry, \$56.8 million in the recreation and entertainment industry, and \$46.8 million in local transportation





# AMATEUR & LEISURE SPORTS HUNTING

	FY19/20	FY20/21
Sports travelers thousands of travelers)	321.3	310.7
Non-Resident	37.9	39.8
Resident	283 4	
Sports economic footprint (\$ millions and jobs)		
Direct output		\$304
Total output	\$521	\$517
Total jobs	4,660	4,680
Total state & local taxes	\$43	\$43





# **AMATEUR & LEISURE SPORTS FISHING**

# **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 13.7 million resident and non-resident sports travelers fished in Florida.

Florida's endless coastline and numerous freshwater lakes make fishing a popular year-round sport for both Florida residents and visitors. Visitors that traveled to Florida or within Florida to fish spent money on fishing supplies and tourism related expenditures (i.e. lodging, food and beverage, retail, entertainment, and

In FY19/20 and FY20/21, 13 7 million resident and non-resident sports travelers fished in Florida - 3.9 million or 28% of which originated from outside the State of Florida These visitors generated incremental spending in the host market economies that would not have occurred but for fishing

### Sports Travelers by Type: Fishing Number of travelers and percentage share



# **AMATEUR & LEISURE SPORTS FISHING**

### **Non-Resident Sports Traveler Spending**

Non-resident fishers spent \$3.6 billion across a wide range of sectors in Florida in FY19/20 and FY20/21.

The 3.9 million non-resident fishers spent \$3.6 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues.

The off-site spending by non-resident fishers was spread across a number of industries, including \$1.0 billion in retail, \$907.2 million in the lodging industry, \$792.6 million in spending in the food and beverage industry, \$490.7 million in the recreation and entertainment industry, and \$436.2 million in local transportation.



# AMATEUR & LEISURE SPORTS FISHING

### **Sports Economic Footprint**

Resident and non-resident fishers spent \$9.2 billion across a wide range of sectors in FY19/20 and FY20/21.

The 13.7 million resident and nonresident fishers spent \$9.2 billion in the Florida economy in FY19/20 and FY20/21. This includes offsite spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The spending by resident and nonresident fishers was spread across a number of industries, including \$2.5 billion in the lodging industry, \$2.5 billion in retail, \$2.0 billion in spending in the food and beverage industry, \$1.2 billion in the recreation and entertainment industry, and \$1.1 billion in local transportation.





# AMATEUR & LEISURE SPORTS FISHING

	FY19/20	FY20/21	
Sports travelers (millions of travelers)	6.8	6.9	
Non-Resident	1.9	1.9	
Resident	4.8	5.0	
Sports economic footprint (\$ millions and jobs)			
Direct output	\$4,507	\$4,731	
Total output	\$8,027	\$8,387	
Total jobs	78,880	83,550	
Total state & local taxes	\$662	\$692	







# AMATEUR & LEISURE SPORTS WILDLIFE VIEWING

# **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 4.5 million resident and non-resident sports travelers participated in wildlife viewing in Florida.

Florida's climate and diverse array of natural resources provides a habitat for many types of wildlife for locals and visitors to admire. Visitors that traveled to Florida or within Florida to view wildlife spent money on lodging, food and beverage, retail, entertainment, and transportation.

in FY19/20 and FY20/21, 45 million resident and non-resident sports travelers participated in wildlife viewing in Florida – 2.4 million or 55% of which originated from outside the State of Florida These visitors generated incremental spending in the host market economies that would not have occurred but for wildlife viewing

### Sports Travelers by Type: Wildlife Viewing Number of travelers and percentage share



# AMATEUR & LEISURE SPORTS WILDLIFE VIEWING

## Non-Resident Sports Traveler Spending

Non-resident wildlife viewers spent \$4.1 billion across a wide range of sectors in Florida in FY19/20 and FY20/21.

The 2.4 million non-resident wildlife viewers spent \$4.1 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues.

The off-site spending by non-resident wildlife viewers was spread across a number of industries, including \$1.1 billion in spending in the food and beverage industry, \$1.0 billion in the lodging industry, \$758.6 million in the recreation and entertainment industry, \$649.0 million in retail, and \$534.6 million in local transportation.



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TOURISM ECONOMICS

# AMATEUR & LEISURE SPORTS WILDLIFE VIEWING

### **Sports Economic Footprint**

Resident and non-resident wildlife viewers spent \$7.0 billion across a wide range of sectors in FY19/20 and FY20/21.

The 4.5 million resident and non-resident wildlife viewers spent \$7.0 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The spending by resident and nonresident wildlife viewers was spread across a number of industries, including \$1.9 billion in spending in the food and beverage industry, \$1.8 billion in the lodging industry, \$1.8 billion in the recreation and entertainment industry, \$1.1 billion in retail, and \$904.8 million in local transportation.





# AMATEUR & LEISURE SPORTS WILDLIFE VIEWING

	FY19/20	FY20/21
ports travelers thousands of travelers)	2,204.2	2,258.9
Non-Resident	1,224.9	1,224.8
Resident	979.3	1,034.0
ports economic footprint \$ millions and jobs)		
Direct output	\$3,453	\$3,563
Total output	\$6,357	\$6,528
Total jobs	65,680	68,410
Total state & local taxes	\$517	\$531



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# AMATEUR & LEISURE SPORTS PARKS AND RECREATION

millions and jobs		
	FY19/20	FY20/21
Sports economic footprint \$ millions and jobs)		
Direct output	\$2,866	\$3,052
Total output	\$6,865	\$7,268
Total jobs	115,540	124,060
Total state & local taxes	\$760	\$805

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The professional sports component of the Florida sports economy generated \$10.2 billion in total output.

The professional sports segment of the Florida sports economy is composed of the following five sub-segments:

- Major league sports
- Spring training
- · Minor league sports
- Motorsports
- Tennis

#### DETAILED ECONOMIC IMPACTS: PROFESSIONAL SPORTS

\$ millions and jobs

	Out	put	Jol	bs	State & Loc	al Taxes
	Direct	Total	Direct	Total	Direct	Total
Sports Economic Footprint	\$4,748	\$10,198	54,100	74,200	\$647	\$1,005
Major league sports	\$3,249	\$7,204	40,100	55,100	\$477	\$738
Spring training	\$339	\$680	3,200	4,300	\$40	\$62
Minor league sports	\$350	\$691	3,200	4,300	\$37	\$59
Motorsports	\$769	\$1,536	7,200	9,800	\$87	\$138
Tennis	\$41	\$86	400	600	\$5	\$8

### SUMMARY ECONOMIC IMPACTS: PROFESSIONAL SPORTS

In FY19/20 and FY20/21, professional sports had a direct sports economic footprint of \$4.7 billion, including off-site spending by resident and non-resident visitors and local operational spending. This spending generated a total statewide economic impact of \$10.2 billion and supported 74,200 total jobs on an annual basis in Florida. The total economic impact of \$10.2 billion generated approximately \$1.0 billion in total state and local tax revenues.



\$4.7B

Direct Sports Economic Footprint



\$10.2B

Total Economic Impact



Average Annualized Jobs



Total State & Local Tax Revenues



75



### **PROFESSIONAL SPORTS MAJOR LEAGUE SPORTS**

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 3.4 million resident and non-resident sports travelers attended a major league sporting event in Florida.

Florida is home to the following 12 major league teams

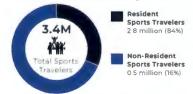
- · Florida Panthers Inter Miami CF
- Jacksonville Jaguars
- Miami Dolphins Miami Heat
- Miami Marlins
- Orlando City SC
  - Orlando Magic
- Orlando Pride Tampa Bay Buccaneers
- Tampa Bay Lightning
- Tampa Bay Rays

Each of these teams generated significant economic impacts as they spent money in the local economy to sustain operations of the team. In addition, resident and nonresident sports travelers that attended a major league game spent money while attending games and frequenting offsite establishments in the local economy. including local restaurants, hotels, retailers, and recreation/entertainment venues

### In FY19/20 and FY20/21, 3 4 million resident

and non-resident sports travelers attended a major league game - 547,000 or 16% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for the major league sports

#### Sports Travelers by Type: Major League Sports Number of travelers and percentage share



### **PROFESSIONAL SPORTS** MAJOR LEAGUE SPORTS

#### **Non-Resident Sports Traveler Spending**

Non-resident sports travelers that attended a major league game in Florida spent \$241.3 million across a wide range of sectors in FY19/20 and FY20/21.

The 547,000 non-resident sports travelers spent \$241.3 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment

The off-site spending by non-resident sports travelers that attended a major league game was spread across a number of industries, including \$63.9 million in the lodging industry, \$53.9 million in the recreation and entertainment industry, \$49.4 million in spending in the food and beverage industry, \$42.2 million in retail, and \$31.9 million in local transportation.



#### **PROFESSIONAL SPORTS** MAJOR LEAGUE SPORTS

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and major league teams across Florida spent \$3.2 billion across a wide range of sectors in FY19/20 and FY20/21.

The 3.4 million resident and non-resident sports travelers and major league teams spent \$3.2 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues, as well as on-site spending at sports facilities during the major league games.

The spending by resident and nonresident sports travelers and major league teams was spread across a number of industries, including \$2.2 billion in operational spending, \$245 million in the recreation and entertainment industry, \$226 million in spending in the food and beverage industry, \$203 million in the lodging industry, \$192 million in retail, and \$146 million in local transportation.





# PROFESSIONAL SPORTS MAJOR LEAGUE SPORTS

	FY19/20	FY20/21
ports travelers nillions of travelers)	2.6	0.7
Non-Resident	0.4	
		0.6
ports economic footprint millions and jobs)		
Direct output		\$1,327
Total output	\$4,169	\$3,035
Total jobs		49,150
Total state & local taxes	\$415	\$323





### PROFESSIONAL SPORTS SPRING TRAINING

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 351,000 resident and non-resident sports travelers attended Spring Training in Florida.

Florida hosts 15 MLB teams each February and March for Spring Training, known as the Grapefruit League. The teams are located throughout Florida, primarily along the Gulf Coast. Treasure Coast, and Tampa Bay area

Each of these MLB teams generated significant economic impacts as they spent money in the local economy to sustain operations of the team and Spring Training complex in addition, resident and non-resident sports travelers that attended Spring Training spent money while at the game and frequenting off-

Resident Sports Travelers 126,000 (36%)

Non-Resident Sports Travelers 225,000 (64%)

**Sports Travelers by Type: Spring Training** Number of travelers and percentage share

site establishments in the local economy, including local restaurants, hotels, retailers, and recreation/entertainment venues

In FY19/20 and FY20/21, 351,000 unique resident and non-resident sports travelers attended at least one Spring Training game – 225,000 or 64% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for Spring Training.

### PROFESSIONAL SPORTS SPRING TRAINING

#### Non-Resident Sports Traveler Spending

Non-resident sports travelers that attended Spring Training in Florida spent \$190.4 million across a wide range of sectors in FY19/20 and FY20/21.

The 225,000 non-resident sports travelers that attended Spring Training spent \$190.4 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident sports travelers that attended Spring Training was spread across a number of industries, including \$52.2 million in spending in the food and beverage industry, \$47.3 million in the lodging industry, \$35.5 million in the recreation and entertainment industry, \$30.4 million in retail, and \$25.0 million in local transportation.



TOURISM ECONOMICS

OURISM ECONOM

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### PROFESSIONAL SPORTS SPRING TRAINING

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and Grapefruit League teams across Fiorida spent \$338.7 million across a wide range of sectors in FY19/20 and FY20/21.

The 351,000 resident and non-resident sports travelers and Grapefruit League teams spent \$338.7 million in the Florida economy in FY19/20 and FY20/21. This includes offsite spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at Spring Training complexes.

The spending by resident and nonresident sports travelers and Grapefruit League teams was spread across a number of industries, including \$103.2 million in operational spending, \$64.2 million in spending in the food and beverage industry, \$59.4 million in the lodging industry, \$43.7 million in the recreation and entertainment industry, \$37.4 million in retail, and \$30.8 million in local transportation.





# PROFESSIONAL SPORTS SPRING TRAINING

	FY19/20	FY20/21
Sports travelers (thousands of travelers)	257.1	94.1
Non-Resident	166.3	58.4
Resident	90.8	35.7
Sports economic footprint \$ millions and jobs)		
Direct output		\$113
Total output	\$445	\$234
Total jobs	5,440	3,240
Total state & local taxes	\$40	\$22







### PROFESSIONAL SPORTS MINOR LEAGUE SPORTS

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 1.0 million resident and non-resident sports travelers attended a minor league sporting event in Florida

During the three fiscal years analyzed, Florida was home to a myriad of minor league teams – the majority of which were associated with baseball. The minor league teams played in the following leagues (some of which have since changed names or folded). Arena Football League, East Coast Hockey. League, Florida State League, National Arena League, NBA G League, Southern League, and United Soccer League

Sports Travelers by Type: Minor League Sports Number of travelers and percentage share



Each of these minor league teams

generated significant economic impacts as they spent money in the local economy to sustain operations. In addition, resident and non-resident sports travelers that attended a minor league game spent money while attending games and frequenting off-site establishments in the local economy, including local restaurants, hotels, retailers, and recreation/entertainment venues.

In FY19/20 and FY20/21, 1.0 million resident and non-resident sports travelers attended a minor league game – 94,000 or 9% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for the minor league sports.

### PROFESSIONAL SPORTS MINOR LEAGUE SPORTS

#### Non-Resident Sports Traveler Spending

Non-resident sports travelers that attended a minor league game in Florida spent \$57.4 million across a wide range of sectors in FY19/20 and FY20/21.

The 94,000 non-resident sports travelers spent \$57.4 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident sports travelers that attended a minor league game was spread across a number of industries, including \$17.6 million in the lodging industry, \$14.5 million in spending in the food and beverage industry, \$9.9 million in the recreation and entertainment industry, \$8.5 million in retail, and \$7.0 million in local transportation.



TOURISM ECONOMICS

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#### **PROFESSIONAL SPORTS** MINOR LEAGUE SPORTS

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and minor league teams across Florida spent \$349.9 million across a wide range of sectors in FY19/20 and FY20/21.

The 1.0 million resident and nonresident sports travelers and minor league teams spent \$349.9 million in the Florida economy in FY19/20 and FY20/21. This includes offsite spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at sports facilities during the minor league games.

The spending by resident and nonresident sports travelers and minor league teams was spread across a number of industries, including \$82.3 million in operational spending, \$80.1 million in spending in the food and beverage industry, \$54.5 million in the recreation and entertainment industry, \$48.1 million in the lodging industry, \$46.6 million in retail, and \$38.4 million in local transportation.





# PROFESSIONAL SPORTS MINOR LEAGUE SPORTS

### Economic Impact Summary: Minor League Sports Thousands of sports travelers, \$ millions, and jobs

	FY19/20	FY20/21
Sports travelers (thousands of travelers)	646.0	366.7
Non-Resident	60.4	33.7
Resident	585.6	333.0
Sports economic footprint \$ millions and jobs)		
Direct output	\$211	\$138
Total output	\$414	\$277
Total jobs	5,020	3,580
Total state & local taxes	\$35	\$24



OURISM ECONOM



### PROFESSIONAL SPORTS MOTORSPORTS

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 949,000 resident and non-resident sports travelers attended a NASCAR race in Florida or the Firestone Grand Prix of St. Petersburg.

Sports Travelers by Type: Motorsports

949,000

Number of travelers and percentage share

Florida is home to two major NASCAR tracks (Daytona international Speedway and Homestead-Miami Speedway) and the Firestone Grand Prix of St Petersburg, an IndyCar Series race

Each of these venues and events generated significant economic impacts as they spent money in the local economy to sustain operations. In addition, resident and non-resident sports travelers that attended a motorsports race spent money while at the race and frequenting off-site establishments in the local economy, including local.

restaurants, hotels, retailers, and recreation/entertainment venues

In FY19/20 and FY20/21, 949,000 resident and non-resident sports travelers attended a race = 595,000 or 63% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for motorsports.

# PROFESSIONAL SPORTS MOTORSPORTS

#### Non-Resident Sports Traveler Spending

Non-resident sports travelers that attended motorsports race in Florida spent \$463.5 million across a wide range of sectors in FY19/20 and FY20/21.

The 595,000 non-resident sports travelers spent \$463.5 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident sports travelers that attended a motorsports race was spread across a number of industries, including \$127.9 million in spending in the food and beverage industry, \$112.7 million in the lodging industry, \$87.0 million in the recreation and entertainment industry, \$74.5 million in retail, and \$61.3 million in local transportation.

ECONOMICS



GURISM ECONOM:

Resident Sports Travelers

354,000 (37%)

Non-Resident

595,000 (63%)

Sports Travelers

9

### PROFESSIONAL SPORTS MOTORSPORTS

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and motorsport venues and events across Florida spent \$769.0 million across a wide range of sectors in FY19/20 and FY20/21.

The 949,000 resident and non-resident sports travelers and motorsport venues and events spent \$769.0 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at motorsport races.

The spending by resident and nonresident sports travelers and motorsport venues and events was spread across a number of industries, including \$221.5 million in operational spending, \$153.8 million in spending in the food and beverage industry, \$125.7 million in the lodging industry, \$104.7 million in the recreation and entertainment industry, \$89.6 million in retail, and \$73.8 million in local transportation.





# PROFESSIONAL SPORTS MOTORSPORTS

Total state & local taxes

**Economic Impact Summary: Motorsports** 

	FY19/20	FY20/21
Sports travelers (thousands of tra <del>velers</del> )	387.7	561.4
Non-Resident	242.8	352 4
Resident	144.9	209 0
Sports economic footprint (\$ millions and jobs)		
Direct output	\$323	\$446
Total output	\$653	\$882
Total jobe	6 200	11 10/







### PROFESSIONAL SPORTS TENNIS

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 54,000 resident and non-resident sports travelers attended the Delray Beach Open and the Miami Open.

Florida is home to two ATP and WTA tournaments each year: the Delray Beach Open and the Miami Open.

Each of these tournaments generated significant economic impacts as the tournament operators spent money in the local economy to sustain tournament operations. In addition, resident and non-resident sports travelers that attended a tennis tournament spent money while at the tournament and frequenting off-site establishments in the local economy, including local restaurants, hotels, retailers, and recreation/entertainment venues

**Sports Travelers by Type: Tennis** Number of travelers and percentage share



In FY19/20 and FY20/21, 54,000 resident and non-resident sports travelers attended a professional tennis tournament – 9,000 or 16% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for professional tennis.

### PROFESSIONAL SPORTS TENNIS

#### Non-Resident Sports Traveler Spending

Non-resident sports travelers that attended the Delray Beach Open and the Miami Open spent \$6.0 million across a wide range of sectors in FY19/20 and FY20/21.

The 9,000 non-resident sports travelers spent \$6.0 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/ entertainment venues.

The off-site spending by non-resident sports travelers that attended a tennis tournament was spread across a number of industries, including \$1.6 million in spending in the food and beverage industry, \$1.5 million in the lodging industry, \$1.1 million in the recreation and entertainment industry, \$942,000 in retail, and \$776,000 in local transportation.



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### PROFESSIONAL SPORTS TENNIS

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and professional tennis tournament operators spent \$40.9 million across a wide range of sectors in FY19/20 and FY20/21.

The 54,000 resident and non-resident sports travelers and professional tennis tournament operators spent \$40.9 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at the Delray Beach Open and Miami Open.

The spending by resident and non-resident sports travelers and professional tennis tournaments was spread across a number of industries, including \$20.0 million in operational spending, \$6.0 million in spending in the food and beverage industry, \$4.3 million in the lodging industry, \$4.1 million in the recreation and entertainment industry, \$3.5 million in retail, and \$2.9 million in local transportation.



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# PROFESSIONAL SPORTS TENNIS

Economic	Impact	Summary	: Tennis		
Thousands	of sports	travelers, \$	millions,	and	job

	FY19/20	FY20/21
Sports travelers (thousands of travelers)	38.8	15.3
Non-Resident	6.2	2.4
Resident	32.6	12.9
Sports economic footprint \$ millions and jobs)		
Direct output	\$24	\$17
Total output	\$48	\$38
Total jobs	640	580
Total state & local taxes	\$4	Se



TOURISM ECONOMICS





The collegiate athletics component of the Florida sports economy generated \$5.5 billion in total output in FY19/20 and FY20/21.

The collegiate athletics segment of the Florida sports economy is composed of the following sub-segments:

- Collegiate sports
- Collegiate bowl games

#### DETAILED ECONOMIC IMPACTS: COLLEGIATE ATHLETICS

\$ millions and jobs

	Outp	ut	Jol	os	State & Loc	al Taxes
	Direct	Total	Direct	Total	Direct	Total
Sports Economic Footprint	\$2,480	\$5,478	30,200	41,500	\$362	\$559
Collegiate sports	\$2,230	\$4,955	27,500	37,900	\$329	\$509
Collegiate bowl games	\$250	\$523	2,600	3,600	\$32	\$50

### SUMMARY ECONOMIC IMPACTS: COLLEGIATE ATHLETICS

In FY19/20 and FY20/21, collegiate athletics had a direct sports economic footprint of \$2.5 billion, including off-site spending by resident and non-resident visitors and local operational spending. This spending generated a total statewide economic impact of \$5.5 billion and supported 41,500 total jobs on an annual basis in Florida. The total economic impact of \$5.5 billion generated approximately \$559.4 million in total state and local tax revenues.



\$2.5B

Direct Sports Economic Footprint



\$5.5E

Total Economic Impact



Average Annualized Jobs Generated



Total State & Local Tax Revenues

80

TOURISM ECONOMIC

TOURISM ECONOMICS

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### COLLEGIATE ATHLETICS

#### **COLLEGIATE SPORTS**

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 2.6 million resident and non-resident sports travelers attended a collegiate sports game in Florida.

Florida is home to more than 60 public and private colleges and universities, all of which offer and fund collegiate athletic departments

Each of these schools generated significant economic impacts as they spent money in the local economy to sustain operations of the athletic programs. In addition, resident and non-resident sports travelers that attended a collegiate athletic game spent money while attending games and frequenting off-site establishments in the local

**Sports Travelers by Type: Collegiate Sports** Number of travelers and percentage share



economy, including local restaurants, hotels, retailers, and recreation entertainment venues

In FY19/20 and FY20/21, 2.6 million resident and non-resident sports travelers attended a collegiate sports game – 753,000 or 29% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for collegiate sports.

### COLLEGIATE ATHLETICS COLLEGIATE SPORTS

#### Non-Resident Sports Traveler Spending

Non-resident sports travelers that attended a collegiate sports game in Florida spent \$350.6 million across a wide range of sectors in FY19/20 and FY20/21.

The 753,000 non-resident sports travelers spent \$350.6 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident sports travelers that attended a collegiate sports game was spread across a number of industries, including \$97.5 million in spending in the food and beverage industry, \$83.2 million in the lodging industry, \$66.4 million in the recreation and entertainment industry, \$56.8 million in retail, and \$46.8 million in local transportation.



TOURISM ECONOM:

### COLLEGIATE ATHLETICS COLLEGIATE SPORTS

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and collegiate athletic programs across Florida spent \$2.2 billion across a wide range of sectors in FY19/20 and FY20/21.

The 2.6 million resident and nonresident sports travelers and collegiate athletic departments spent \$2.2 billion in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at collegiate sports facilities during games.

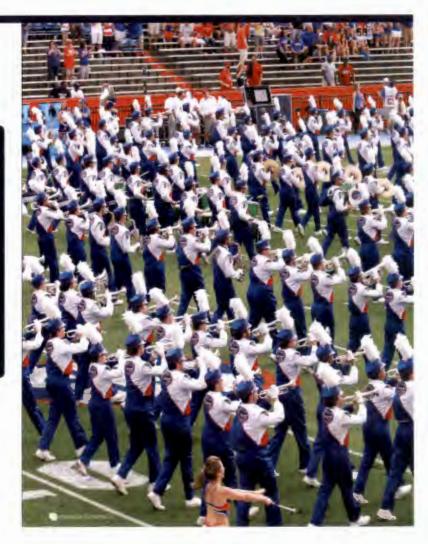
The spending by resident and nonresident sports travelers and collegiate athletic departments was spread across a number of industries, including \$1.5 billion in operational spending, \$191 million in spending in the food and beverage industry, \$160 million in the lodging industry, \$130 million in the recreation and entertainment industry, \$111 million in retail, and \$91 million in local transportation.





# COLLEGIATE ATHLETICS COLLEGIATE SPORTS

	FY19/20	FY20/21
ports travelers nillions of travelers)	2.3	0.3
Non-Resident	0.7	0.1
Resident	1.6	0.2
ports economic footprint 5 millions and jobs)		
Direct output	\$1,419	\$812
Total output	\$3,066	\$1,889
Total jobs	44,490	31,280
Total state & local taxes	\$305	\$204



URISM ECONOL



#### **COLLEGIATE ATHLETICS COLLEGIATE BOWL GAMES**

#### **Resident & Non-Resident Sports Travelers**

In FY19/20 and FY20/21, 300,000 resident and non-resident sports travelers attended a collegiate bowl game in Florida.

During the three fiscal years analyzed, Florida was home to the following eight annual collegiate bowl games (some of which changed title sponsors) Boca Raton Bowl, Cheez-It Bowl, Citrus Bowl, Cure Bowl, Gasparılla Bowl, Orange Bowl, Outback Bowl, and TaxSlayer Gator Bowl Each of these bowl games generated significant economic impacts as the event operators spent money in the local economy to sustain operations of the games. In addition, resident and non-resident sports travelers that attended a bowl game spent money while attending the game and frequenting

Sports Travelers by Type: Collegiate Bowl Number of travelers and percentage share

Resident



off-site establishments in the local economy, including local restaurants, hotels, retailers, and recreation/ entertainment venues In FY19/20 and FY20/21, 300,000 resident and non-resident sports travelers attended a bowl game - 180,000 or 60% of which originated from outside the State of Florida. These visitors generated incremental spending in the host market economies that would not have occurred but for the

#### **COLLEGIATE ATHLETICS COLLEGIATE BOWL GAMES**

#### **Non-Resident Sports Traveler Spending**

Non-resident sports travelers that attended a bowl game in Florida spent \$106.2 million across a wide range of sectors in FY19/20 and FY20/21.

The 180,000 non-resident sports travelers spent \$106.2 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues.

The off-site spending by non-resident sports travelers that attended a bowl game was spread across a number of industries, including \$28.8 million in spending in the food and beverage industry, \$27.1 million in the lodging industry, \$19.6 million in the recreation and entertainment industry, \$16.8 million in retail, and \$13.8 million in local transportation.



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### COLLEGIATE ATHLETICS COLLEGIATE BOWL GAMES

#### **Sports Economic Footprint**

Resident and non-resident sports travelers and bowl game operators across Florida spent \$250.3 million across a wide range of sectors in FY19/20 and FY20/21.

The 300,000 resident and nonresident sports travelers and bowl game operators spent \$250.3 million in the Florida economy in FY19/20 and FY20/21. This includes off-site spending at local restaurants, hotels, retailers, and recreation/entertainment venues, as well as on-site spending at sports facilities during the bowl games.

The spending by resident and nonresident sports travelers and bowl game operators was spread across a number of industries, including \$113.5 million in operational spending, \$37.1 million in spending in the food and beverage industry, \$35.1 million in the lodging industry, \$25.2 million in the recreation and entertainment industry, \$21.6 million in retail, and \$17.8 million in local transportation.





### **COLLEGIATE ATHLETICS COLLEGIATE BOWL GAMES**

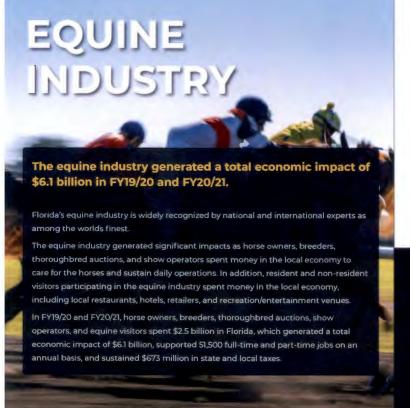
# Economic Impact Summary: Collegiate Bowl Games Thousands of sports travelers, \$ millions, and jobs

	FY19/20	FY20/21
Sports travelers (thousands of tra <del>velers</del> )	248.4	51.6
Non-Resident	149.2	31.0
Resident	99.2	20.6
Sports economic footprint (\$ millions and jobs)		
Direct output	\$169	\$81
Total output	\$344	\$179
Total jobs	4.440	2,770
Total state & local taxes	\$32	\$19



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#### **DETAILED ECONOMIC IMPACTS: EQUINE INDUSTRY**

\$ millions and jobs

	FY19/20	FY20/21
Sports economic footprint (\$ millions and jobs)		
Direct output	\$1,172	\$1,372
Total output	\$2,807	\$3,268
Total jobs	47,250	55,790
Total state & local taxes	\$311	\$362

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### SUMMARY ECONOMIC IMPACTS: EQUINE INDUSTRY

In FY19/20 and FY20/21, the equine industry had a direct sports economic footprint of \$2.5 billion. This spending generated a total statewide economic impact of \$6.1 billion and supported 51,500 total jobs on an annual basis in Florida. The total economic impact of \$6.1 billion generated approximately \$672.8 million in total state and local tax revenues



\$2.5B

**Direct Sports** Economic Footprint



Total Economic



Average Annualized



\$672.8M

Total State & Local Tax Revenues

TOURISM ECONOMICS







#### **DETAILED ECONOMIC IMPACTS: RETAIL SALES**

\$ millions and jobs

	FY19/20	FY20/21
Sports economic footprint (\$ millions and jobs)		
Direct output	\$2,267	\$2,408
Total output	\$5,431	\$5,736
Total jobs	91,420	97,910
Total state & local taxes	\$601	\$635

### SUMMARY ECONOMIC IMPACTS: RETAIL SALES

In FY19/20 and FY20/21, the sports retail industry had a direct sports economic footprint of \$4.7 billion. This spending generated a total statewide economic impact of \$11.2 billion and supported 94,700 total jobs on an annual basis in Florida. The total economic impact of \$11.2 billion generated approximately \$1.2 billion in total state and local tax revenues.



\$4.7B

Direct Sports Economic Footprint



\$11.2B

Total Economic Impact



94,700

Average Annualized Jobs



Total State & Local Tax Revenues

TOURISM ECONOMICS

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#### **ABOUT THE RESEARCH TEAM**



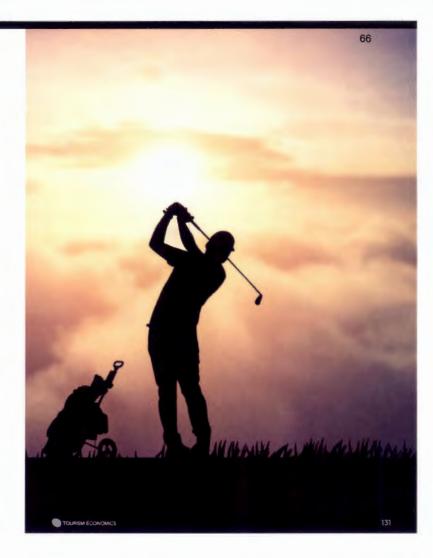


Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts and analytical tools on 200 countries, 100 industrial sectors and over 3,000 cities. Our best-of-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social and business impact.

Oxford Economics is an adviser to corporate, financial and government decision-makers and thought leaders. Our worldwide client base comprises over 2,000 international organizations, including leading multinational companies and financial institutions; key government bodies and trade associations; and top universities, consultancies, and think tanks.

This study was conducted by the Tourism Economics group within Oxford Economics. Tourism Economics combines an understanding of traveler dynamics with rigorous economics in order to answer the most important questions facing destinations, investors, and strategic planners. By combining quantitative methods with industry knowledge, Tourism Economics designs custom market strategies, destination recovery plans, forecasting models, policy analysis, and economic impact studies.

Oxford Eceonomics employes 400 full-time staff, including 250 professional economists and analysts. Headquartered in Oxford, England, with regional centers in London, New York, and Singapore, Oxford Economics has offices across the globe in Belfast, Chicago, Dubai, Miami, Milan, Paris, Philadelphia, San Francisco, and Washington DC.



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# Economic Contributions of the State University System of Florida in 2009-10

Sponsored Project Report to the Board of Governors of the State University System of Florida

Alan W. Hodges, PhD, Thomas J. Stevens, PhD, and Rodney L. Clouser, PhD University of Florida, Food & Resource Economics Department

Julie Harrington, PhD, Martijn Niekus, Drs, and Keith Baker, PhD Florida State University, Center for Economic Forecasting and Analysis





# **State University System of Florida**



- 11 institutions, 30 branch campuses
- 80 million square feet of buildings, 40,533 acres land
- 312,216 students (209,309 FTE)
- 73,579 degrees awarded in 2009-10
- 58,000 employees





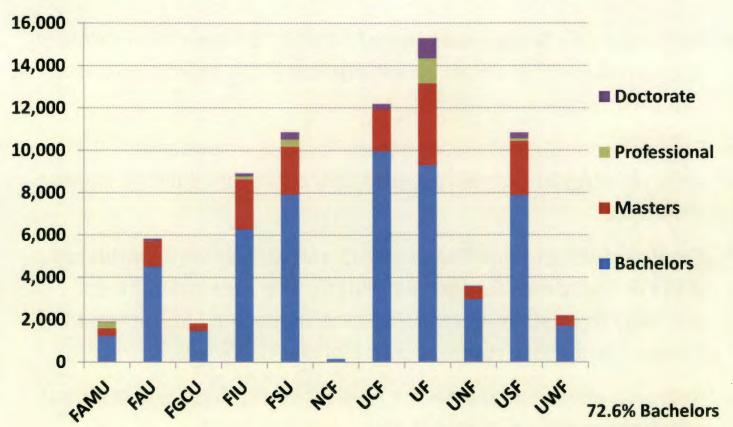
# **Sources and Methods**

- SUS revenues & expenses from FY 2009-10 financial statement, and supplemental detail on expenditures for operations, payroll, capital improvement (BOG).
- Student spending estimated from "cost of attendance", undergrad/graduate enrollment, on/off-campus living, home residence.
- Employment and earnings for SUS and high school graduates (FETPIP Outcomes Report, Fall 2010), and present value of earnings over 30-year worklife based on age (U.S. Bureau of Census) and share remaining in Florida (OPPAGA).
- Regional economic model for Florida, multipliers and regional purchase coefficients (IMPLAN).





# Degrees Awarded by Florida SUS Institutions, 2009-10







21.7% Masters
2.8% Professional
3.0% Doctorate

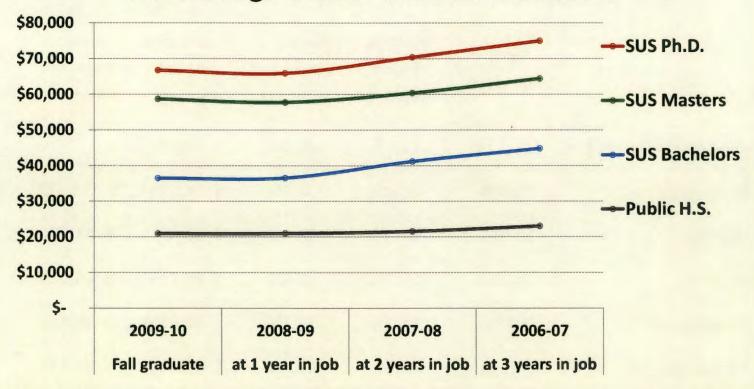
# Average Annual Per Capita Earnings and Earnings Differentials for Florida High School and SUS Degree Graduates in FY 2009-10

Education level	Total individuals	Percent found employed	Percent of employed fulltime	Equivalent annual earnings	Annual earnings differential
High School (public)	118,679	43.6%	44.7%	\$ 20,924	
Bachelors	55,089	60.4%	74.8%	\$ 36,520	\$ 15,596
Masters	15,034	58.8%	91.0%	\$ 58,698	\$ 37,774
Ph.D.	2,165	34.3%	92.1%	\$ 66,743	\$ 45,819
Professional	2,305	54.4%	91.0%	\$ 70,716	\$ 49,792
All SUS Degrees	74,593	59.1%	78.8%	\$ 42,656	\$ 21,732

Annual earnings differential compared to high school graduates in same year.

Source: Annual Outcomes Report, Florida Education & Training Placement Information Program (FETPIP), Division of Accountability, Research and Measurement, Fall 2010.

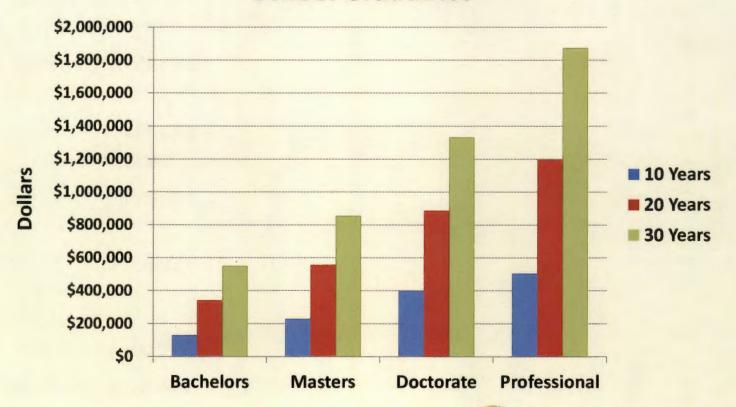
# Growth in Annual Average per Capita Earnings for Florida High School and SUS Graduates



Source: Florida Dept. Education, FETPIP outcomes reports (2009, 2010), and Calculations by FSU-CEFA



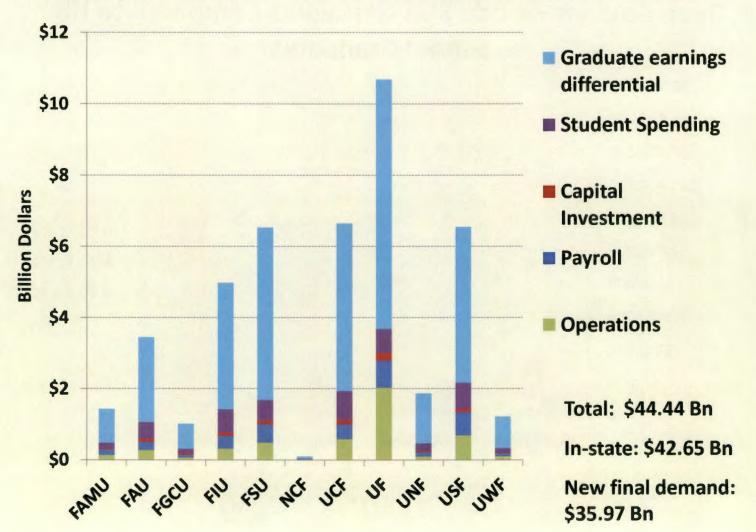
## Present Value of Average Individual Earnings Differential Over Time for Florida SUS Graduates Compared to High School Graduates







### **Summary of Expenditures for SUS Institutions, FY 2009-10**



# Summary of Total Economic Impacts of the State University System of Florida in FY 2009-10

Category	Output	Value Added	Labor Income	Other Property Income	Indirect Business Tax	Employ- ment
			Million \$		• • •	Jobs
Operations	\$6,528	\$4,258	\$2,452	\$1,453	\$353	53,519
Payroll	\$4,774	\$3,034	\$1,863	\$941	\$236	100,716
Capital	\$2,356	\$1,325	\$907	\$344	\$74	19,752
Student Spending	\$3,735	\$2,670	\$1,192	\$1,175	\$303	39,969
PV of Earnings Differential	\$62,518	\$40,613	\$24,811	\$12,654	\$3,147	557,290
Total	\$79,911	\$51,900	\$31,225	\$16,568	\$4,114	771,245

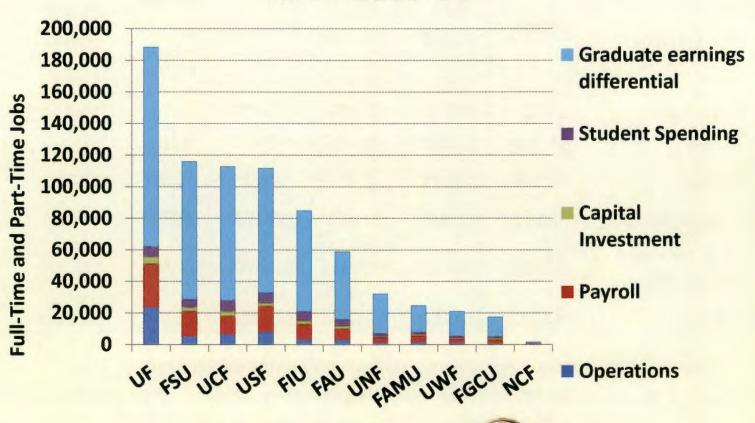
All values in 2010 dollars. Employment includes full-time and part-time jobs.

Impact estimates include IMPLAN regional multiplier effects of supply chain activity (indirect effect) and employee household and government spending (induced).

Employment impact is 7.89% of Florida workforce.

Value added impact is 7.27% of Florida GDP (2010).

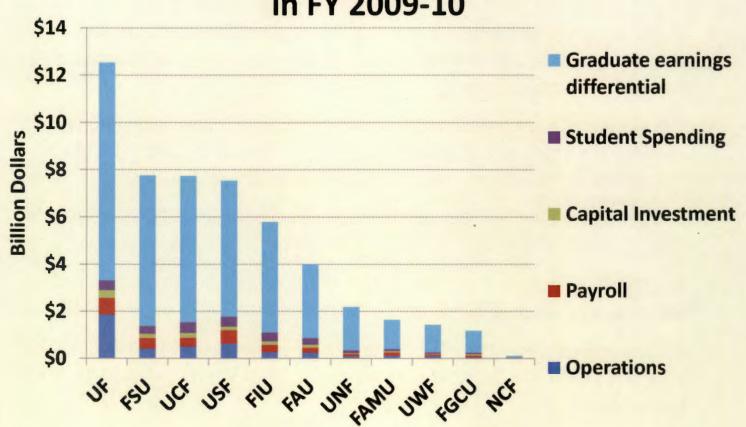
# Employment Impacts of Florida SUS Institutions in FY 2009-10







# Value Added Impacts of Florida SUS Institutions in FY 2009-10







## **Conclusions**

- Study captured impacts of Florida SUS operations, payroll, capital and student spending, and present value of graduate earnings differential, according to scope of work.
- SUS graduates have significantly higher employment rates and lifetime earnings than high school graduates: present value of degree \$550,00 (bachelors) to \$1.87 million (professional) over 30 years.
- SUS generates over 770,000 jobs annually and contributes 7.27% of Florida GDP.
- Employment impacts increased 2.72 fold since 1998-99, although earnings methodology differed (Lynch et al., 2001).
- Did not estimate impacts of visitor spending or technology transfer activities (3,852 and 8,098 jobs, respectively, in UF study)—should do so in future studies.





# 2022-2023 UCF Economic Impact Analysis Conducted by Greater Orlando Sports Commission

#### **Executive Summary**

The UCF Athletic Association recently retained the Greater Orlando Sports Commission (GO Sports) to conduct a study to project the economic impact the UCF Knights' athletics season would drive throughout the Central Florida region. GO Sports is a private, non-profit organization established to attract and manage sports-related events, conferences and activities that drive positive economic development in the City of Orlando, Lake County, Orange County, Osceola County, and Seminole County. To quantify the economic impact of the UCF Knights athletic season on our region, GO Sports prepared a comprehensive model using multiple primary and secondary data sources to quantify the impacts arising from the operations and visitor spending. The results of this study will show the scope of the UCF Knights' athletic season's impact on the community in terms of projected economic impact, along with visitation to the destination and room nights generated.

#### Methodology

When projecting economic impact for sports events, GO Sports will request event organizers provide multiple areas of data tied to their sports related activities. That data would include several categories of event attendee information such as the number of out of state, in state-nonlocal and local athletes, coaches, staff/production, officials, vendors, media, VIPs and spectators that attend an event, game or sports related activity. Along those lines, GO Sports will request how many attendees are typically adult vs. youth and work to determine the average length of stay for each of the attendees.

Industry recognized average daily spending figures are assigned for each category of attendee at the event. Average daily spending takes into account expenditures tied to local or in market accommodations, food/beverage, transportation, entertainment, shopping, etc. Local attendees (with 50 miles of the event location) are not typically assigned any average daily spending number, meaning no new spending is generally reported or included in our projected economic impact statement. Lastly, GO Sports requires the event organizer to share how much they will spend directly in the community for specific goods and services and that amount is factored into the calculations.

When evaluating the impact the UCF Knights' athletic season had on the region, GO Sports asked the Athletic Association to provide data to include the number of out of state, in state-nonlocal and local athletes, coaches, staff/production, officials, vendors, media, VIPs and spectators that attended their games, sponsored events and sports related activities from May 1, 2022 through April 30<sup>th</sup>, 2023. In addition, the UCF Athletics Association provided projections on the number of adult vs. youth attendees, projected average length of stay for each of the attendees and how much was spent locally to stage each activity. Outside of their regular games and sports related activities (i.e. student athlete camps and recruiting visits) tied to their athletic season, the Athletics Association will host and sponsor multiple non-recurring conference and/or NCAA sanctioned events annually so those were included in the projections.

#### **Projections:**

Based on the data provided by the UCF Athletics Association, and using industry standards for calculating economic impact, see the results of our analysis below:

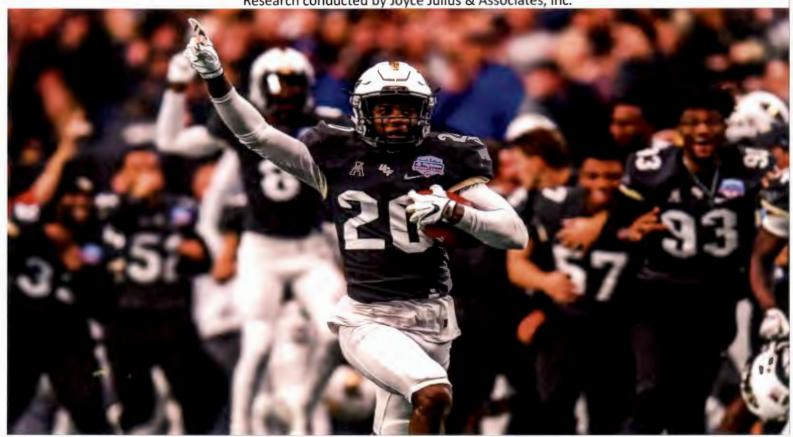
Sport/Activity	Projected Visitors	Projected Room Nights	Projected Economic  Impact
			-
Football	140,669	140,917	\$ 60,579,793.21
Women's Soccer	870	775	\$ 422,266.44
Men's Soccer	797	702	\$ 344,279.76
Women's Volleyball	1,915	1,499	\$ 801,606.43
Cross Country	184	178	\$ 62,392.44
Men's Basketball	21,148	16,201	\$ 8,615,756.60
Women's Basketball	6,441	4,712	\$ 2,517,647.42
Baseball	18,615	13,286	\$ 5,416,300.73
Softball	7,149	5,923	\$ 2,635,589.63
Track & Field	3,180	3,716	\$ 2,486,377.62
Women's Tennis	232	216	\$ 124,696.74
Men's Tennis	200	171	\$ 107,300.46
Women's Golf	265	503	\$ 336,247.86
Men's Golf	218	414	\$ 273,210.60
Rowing	348	261	\$ 169,861.20
Recruiting OV	560	560	\$ 574,218.75
Recruiting UOV	1,980	990	\$ 443,880.63
Camps	1,800	1,800	\$ 945,808.50
Hula Bowl	2,055	2,355	\$ 1,548,531.30
AAC Women's Soccer	1,294	1,423	\$ 728,852.63
AAC Men's Tennis	687	786	\$ 433,215.05
AAC Women's Tennis	978	1,128	\$ 622,783.92
NCAA Softball Regional	1,274	1,427	\$ 822,334.37
Totals	212,858	199,942	\$ 91,012,952.27





Aug. 25, 2018 – Jan. 31, 2019 Media Exposure Analysis

Research conducted by Joyce Julius & Associates, Inc.







#### Overview:

This report showcases the quantitative exposure the University of Central Florida received surrounding the college football season from August 25, 2018 through January 31, 2019.

Impressions and exposure values stemming from national television, television news, Internet news and print media are included within this report.

Joyce Julius and Associates, Inc. has provided independent sports, special event and entertainment program evaluation since 1985. In that time, Joyce Julius and Associates has developed and perfected fully-customizable products that have become the industry standard in exposure measurement.

Joyce Julius and Associates is an independently owned and operated research company.





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#### Executive Summary - August 25, 2018 - January 31, 2019

Exposure Source	Exposure Time N	Mentions/Articles	Impressions	Exposure Value
National Television	28:36:32	2,094	28,389,452	\$71,710,121.07
Television News Coverage	N/A	7,617	278,183,840	\$7,675,092.15
Print Media	N/A	4,881	368,988,102	\$10,180,381.73
Internet News	N/A	36,710	3,018,026,727	\$81,816,675.81
Total	28:36:32	51,302	3,693,588,121	\$171,382,270.76

Note: National Television exposure value is based on Recognition Grade (RG) methodology, which takes into account elements such as size of the identity, screen position, brand clutter and any applicable brand integration. When directly comparing on-screen time and mentions to the program's 30-second commercial rate (without applying RG methodology), a National Television exposure value of \$135,560,893.47 is realized.





#### **Executive Summary, continued**

August 25, 2018 - December 1, 2018

Exposure Source	Exposure Time_Ment	ions/Articles	Impressions	Exposure Value
National Television	26:10:11	1,862	18,518,096	\$37,686,717.03
Television News Coverage	N/A	6,801	256,354,024	\$7,072,807.52
Print Media	N/A	2,702	217,913,487	\$6,012,233.11
Internet News	N/A	31,601	2,686,447,400	\$72,668,402.18
Total	26:10:11	42,966	3,179,233,007	\$123,440,159.84

#### December 2, 2018 - January 31, 2019

Exposure Source	Exposure Time	Mentions/Articles	Impressions	Exposure Value
National Television	2:26:21	232	9,871,356	\$34,023,404.04
Television News Coverage	N/A	816	21,829,816	\$602,284.62
Print Media	N/A	2,179	151,074,615	\$4,168,148.63
Internet News	N/A		331,579,327	\$9,148,273.63
Total	2:26:21	8,336	514,355,114	\$47,942,110.92





### **National Television**







#### 1) National Television

For this analysis, seven UCF home football telecasts, as well as ESPN College GameDay (Nov. 17), the AAC Championship Game (Dec. 1), the Bowl Selection Show (Dec. 2) and the Playstation Fiesta Bowl (Jan. 1) were monitored. In addition, exposure averages, garnered from the aforementioned telecasts, were applied to four UCF road games. Altogether, the broadcasts entertained 28,389,452 viewers.

Date	Broadcaster	Game	Impressions
8/30/2018	ESPNU	UCF AT UCONN	444,000
9/8/2018	ESPN3	SC State vs UCF	20,000
9/21/2018	ESPN	FAU vs UCF	1,295,000
9/29/2018	ESPNU	Pitt vs UCF	246,000
10/6/2018	ESPNU	SMU vs UCF	200,000
10/13/2018	ABC	UCF AT Memphis	2,990,000
10/20/2018	ESPN2	UCF AT ECU	486,000
11/1/2018	ESPN	Temple vs UCF	1,191,000
11/10/2018	ESPN2	Navy AT UCF	385,000
11/17/2018	ESPN	College GameDay	1,817,096
11/17/2018	ABC	Cincinnati vs UCF	3,124,000
11/23/2018	ABC/E2	UCF AT USF	2,999,000
12/1/2018	ABC	Memphis vs UCF	3,321,000
12/2/2018	ESPN	Selection Show	1,400,356
1/1/2019	ESPN	LSU vs UCF	8,471,000





#### **National Television, continued**

#### **University of Central Florida**

Exposure Source	Exposure Time	Exposure Value
College Id. Graphics	21:16:52	\$35,408,784.20
Mentions	N/A	\$24,115,878.66
Helmets	1:51:16	\$2,359,339.77
Midfield Identity	2:15:39	\$3,064,726.26
End Zone Identity	1:03:43	\$2,742,749.65
Banners	0:28:46	\$1,342,364.25
Spectator Signs	0:15:17	\$389,049.00
Spectator Apparel	0:13:39	\$338,779.66
Cheerleader Apparel	0:10:00	\$266,832.95
Highlight Clip	0:07:17	\$385,248.80
Commercial	0:06:30	\$406,283.00
Coach Apparel	0:03:35	\$102,872.60
Jersey Identity	0:06:38	\$56,115.41
Mascot	0:06:18	\$216,584.64
End Zone Banners	0:07:55	\$79,285.62
Jackets	0:00:19	\$42,262.52
Flags	0:01:19	\$68,432.60

Exposure Source	Exposure Time	Exposure Value
Goal Post Padding	0:02:32	\$27,413.92
Drums	0:00:50	\$37,629.10
Stadium Signs	0:01:37	\$25,569.20
Hats	0:01:04	\$21,290.46
Vehicles	0:00:34	\$37,662.75
Sideline Banners	0:02:13	\$17,542.27
Sideline Equipment	0:00:45	\$23,165.77
Wall Decal	0:01:21	\$19,265.00
Scoring Pylon	0:00:36	\$2,307.51
Misc. On-Site Exposure	0:00:25	\$11,550.00
Ring	0:00:10	\$8,877.75
Tunnel Signs	0:00:21	\$4,708.35
Statue	0:00:18	\$9,819.53
Upper-Level LED	0:00:21	\$1,196.92
Belt	0:00:07	\$7,381.50
Band Apparel	0:00:20	\$1,442.83
Total: 2,094 Mentions	28:28:37	\$71,642,412.45





#### National Television, continued

#### #ChargeOn

Exposure Source	Exposure Time	Exposure Value
Tunnel Signs	0:00:19	\$2,163.44
Total:	0:00:19	\$2,163.44

#### #CINvsUCF

Exposure Source	Exposure Time	Exposure Value	
Social Media Graphics	0:00:07	\$1,005.06	
Total:	0:00:07	\$1,005.06	

#### #FAUvsUCF

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:11	\$1,530.00
Total:	0:00:11	\$1,530.00

#### **#LSUvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:23	\$26,056.64
Total:	0:00:23	\$26,056.64





#### National Television, continued

#### **#MEMvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:05	\$2,799.85
Total:	0:00:05	\$2,799.85

#### **#NAVYvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:11	\$359.33
Total:	0:00:11	\$359.33

#### **#PITTvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:18	\$649.85
Total:	0:00:18	\$649.85

#### **#SCSUvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:06	\$6.00
Total:	0:00:06	\$6.00





#### **National Television, continued**

#### **#SMUvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:27	\$315.09
Total:	0:00:27	\$315.09

#### **#UCF\_Football**

Exposure Source	Exposure Time	Exposure Value
Sideline Banners	0:00:03	\$157.54
Total:	0:00:03	\$157.54

#### **#TEMvsUCF**

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:23	\$2,289.39
Total:	0:00:23	\$2,289.39

#### @UCF\_Football\_Twitter

Exposure Source	Exposure Time	Exposure Value
Social Media Graphics	0:00:11	\$6,113.25
Total:	0:00:11	\$6,113.25





#### National Television, continued

#### @UCF\_SVA

Exposure Source	Exposure Time	Exposure Value
Spectator Signs	0:00:06	\$2,679.00
Total:	0:00:06	\$2,679.00

#### UCFKnights.com

Exposure Source	Exposure Time	Exposure Value
Sideline Banners	0:03:08	\$11,440.74
Total:	0:03:08	\$11,440.74

#### GetKnightPass.com

Exposure Source	Exposure Time	Exposure Value
Sideline Banners	0:01:48	\$9,038.56
Upper-Level LED	0:00:09	\$1,104.88
Total:	0:01:57	\$10,143.44





#### National Television, continued



College Id. Graphics



Helmets



**End Zone Identity** 



Midfield Identity





#### National Television, continued



Mascot



Flags



**Stadium Signs** 



**Goal Post Padding** 





### **Television News Coverage**

Cision, Inc., which reviews news programming appearing in all 210 U.S. markets, was contracted to monitor closed-captioning exposure appearing on broadcasts throughout the country surrounding University of Central Florida from August 25, 2018 to January 31, 2019.

Timeframe	Programs	Impressions	Exposure Value
Aug. 25 – Dec. 1	6,801	256,354,024	\$7,072,807.52
Dec. 2 – Jan. 31	816	21,829,816	\$602,284.62





### **Print Media**

Print media was monitored for exposure in conjunction with Nexis, which analyzes more than 3,000 U.S. and Canadian daily/weekly publications. Exposure was monitored from August 25, 2018 to January 31, 2019.

Timeframe	Articles	Impressions	Exposure Value
Aug. 25 – Dec. 1	2,702	217,913,487	\$6,012,233.11
Dec. 2 – Jan. 31	2,179	151,074,615	\$4,168,148.63





### **Internet News**

Internet news sites were monitored for exposure in conjunction with University of Central Florida. Exposure was monitored from November 17, 2017 to January 31, 2018.

Timeframe	Articles	Impressions	Exposure Value
Aug. 25 – Dec. 1	31,601	2,686,447,400	\$72,668,402.18
Dec. 2 – Jan. 31	5,109	331,579,327	\$9,148,273.63





#### Methodology

· National Television

#### **Value Calculation**

The cost per :30 (CP:30) commercial rate—which is the non-discounted or estimated cost to air a commercial in a 30-second time block during a specific event broadcast—is one method used for determining the value of a sponsor's exposure during the particular event broadcast or highlight show in question. The sponsor's exposure time and verbal references are compared to the cost of purchasing commercials during the particular broadcast.

Joyce Julius then scores each individual second of exposure based on its proprietary Recognition Grade (RG) weighting scale. The Recognition Grade is based on the following:

- Size of the identity within the particular camera angle
- •The amount of brand "clutter" surrounding the logo
- Screen position of the logo
- •The integration/activation level during the particular segment (When applicable)

Verbal references are valued at 1/3 (or :10) of a :30 commercial, based on historical research conducted by Joyce Julius, which concluded a brand is mentioned on average three times during a traditional :30 commercial.





#### Methodology

· National Television, continued

#### Impression (Viewership) Calculation

Impressions (viewers) are derived from the rating, the household reach of the network and a static 1.6 viewers-per-viewing household factor. For example, the following calculation would be utilized to determine impressions for a program with a 2.0 rating, which aired on a cable network with 80 million households:

 $2.0 \times (80,000,000/100) \times 1.6 = 2,560,000$  Impressions

Please note: Value calculations utilizing a CP:30 rate are not based upon the number of impressions received by telecast. Impressions are provided in these situations for comparison purposes only.





#### Methodology

- · On-Site
- · Advertising/Promotions
- · Television News
- · Print Media
- Internet News

The following lists a sampling of the television networks from which the NTIV® Factor is calculated each month:

ABC	FOX	NBCSN
CBC	FS1	NFL Net.
CBS	FS2	TBS
<b>CBSSN</b>	FSN	Tennis Ch.
<b>ESPN</b>	Golf Ch.	TNT
ESPN2	MavTV	Univision
ESPNU	NBC	USA

#### **Value Calculation**

Each month, Joyce Julius and Associates' proprietary NTIV® (National Television Impression Value) Factor is derived from the non-discounted or estimated CP:30 rates of more than 2,000 sports, entertainment and news telecasts airing in the United States and Canada over the previous 12 months, along with the corresponding viewing audiences for those programs. As an end result, the continually updated NTIV® Factor represents the cost necessary to reach one viewer (impression), thus establishing an impression-to-cost ratio upon which an entire sponsorship program can be measured.

To determine a sponsorship value, impressions are multiplied by the NTIV® Factor, providing a benchmark wherein all impression-generating components of a program can be consistently measured, valued and compared. Utilization of the NTIV® Factor in establishing a value for the impressions eliminates the need for guesswork in determining individual prices for packaged sponsorship elements such as event signage, public address announcements, or rotating scoreboard advertising.





#### Methodology

· On-Site

#### **Impression Calculation**

Total impressions stemming from on-site items are determined via the following formula:

#### # Distributed/Placements x Attendance x Recognition Grade = Total Impressions

Recognition Grade factors have been derived for each On-Site element. Data used within the factors have been gleaned from such sources as traffic counts, published research on premium acceptance and usage, as well as proprietary Joyce Julius and Associates survey research. The following provides examples of the Recognition Grade factors.

Recognition Grades {1 (100%), 2 (70%), 3 (50%), 4 (30%), 5 (10%) } are based on the following criteria:

- Location of the Identity
- Size/Clarity of the Identity
- Quality of the Item
- Duration of the Event





#### Methodology

· Advertising/Promotions

#### **Impression Calculation**

#### **Television**

Impressions are based on the number of spots, as well as one or more of the following: the gross rating points for the spot; averages derived from the station's viewerships for its local news programming; the subscriber base of the cable company along with an average rating and a static viewers-per-viewing household factor.

#### Radio

Impressions created by radio advertising are derived from Arbitron-provided listenerships of the participating stations and the number of spots.

#### **Print Media**

Impressions created from print media promotions are based on the circulations of the publications. When current and statistically valid survey information is available for a specific publication, adjustments are made for depth of readership.

#### Internet

Impressions are culled from the number of unique visitors credited to the web site (1/30 of the monthly total) from which the sponsor's text-only identity was monitored.





#### Methodology

#### Impression Calculation

#### · Television News Coverage

Impressions are determined from the viewership estimate of each program the monitored entity was mentioned verbally (and captured via closed captioning).

#### · Print Media

Impressions generated by newspapers and magazines are based on each publication's circulation. When current and statistically valid survey information is available for a specific publication, adjustments are made for depth of readership.

#### Internet News

Impressions are culled from the number of users credited to the web site (1/30 of the monthly unique visitor total) from which the sponsor's text-only identity was monitored.

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### Social Media Exposure Analysis

# UF

### University of Central Florida

August 25, 2018 - January 31, 2019

#### **Top Posts**

SC

SportsCenter @SportsCenter

Here's the AP Poll top 10 after week 8. 1 Alabama 2. Clemson 3. Notre Dame 4. LSU 5. Milchigan 6. Texas 7. Georgia 8. Oklahoma 9. Florida 10. UCF



A few shakeups in Week 10's AP Poll. 1. Alabama 2. Clemson 3. Notre Dame 4 LSU 5. Michigan 6 Georgia 7 Oklahoma 8 Ohio State 9 UCF 10 Washington State

SportsCenter @SportsCenter

Quite a few changes in Week 8's AP poll. 1. Alabama 2 Ohio State 3. Clemson 4. Notre Dame 5. LSU 6. Michigan 7. Texas 8. Georgia 9. Oklahoma 10. UCF

SportsCenter @SportsCenter

College football's Week 7 AP poll is out. 1. Alabama 2. Georgia 3. Ohio State 4. Clemson 5. Notre Dame 6. West Virginia 7 Washington 8. Penn State 9. Texas 10. UCF

SportsCenter @SportsCenter

McKenzie Milton was a Heisman hopeful entering Friday. After he went down with an ugly leg injury, his teammates shook his hand and the crowd charnted "UCF" as Milton was carted off the field.



congrats to former #ucf head coach scott frost and everyone

up at nebraska on their first win!!!

Summary

1,224,755,570 Total Potential Impressions

**398,657** Total Posts

\$33,791,006.18 Est. Exposure Value

December 2 Most Posts (26,190)

91% of Posts

Top Platform - Twitter



### Social Media Exposure Analysis



### University of Central Florida

August 25, 2018 - January 31, 2019







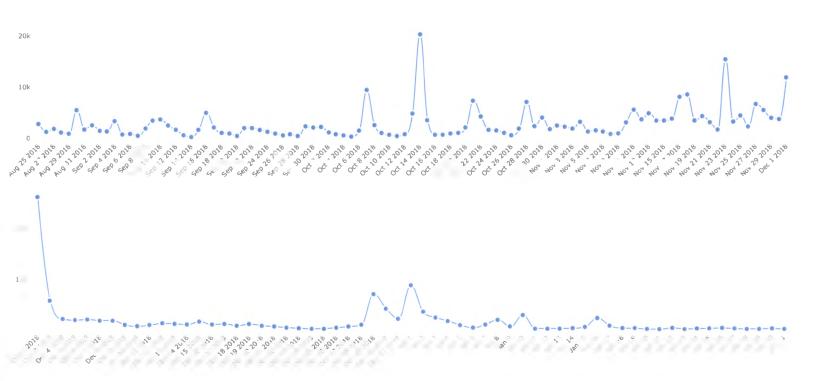
## Social Media Exposure Analysis



## University of Central Florida

August 25, 2018 - January 31, 2019

#### Posts by Day





## Social Media Exposure Analysis



## University of Central Florida

August 25, 2018 - January 31, 2019

### Posts by Platform

0	25k	50k	75k	100k	125k	150k	175k	200k	225k	250k	275k	300k	325k	350k
Twitte	er													
Forun	ns													
Instag	gram													
Faceb	ook													
Comn	nents													
YouTu	ube													
Blogs														



## Social Media Exposure Analysis



## University of Central Florida

August 25, 2018 - January 31, 2019

**Word Cloud** 

teams

AP poll Michigan

Penn State Oklahoma Auburn

**Notre Dame** 

West Virginia Alabama

Mlami

Ohlo St Alabama 2

Georgia

Florida

Georgia 3

Washington Clemson 3



# Social Media Exposure Analysis University of Central Florida



August 25, 2018 - January 31, 2019

Regular Season vs. Post Season

Aug. 25 – Dec. 1

917,907,740

**Total Potential Impressions** 

293,934

**Total Posts** 

\$25,325,074.55

Est. Exposure Value

<u>D</u>ec. 2 – Jan. 31

306,847,830

**Total Potential Impressions** 

104,723

**Total Posts** 

\$8,465,931.63

Est. Exposure Value



# Social Media Exposure Analysis University of Central Florida



August 25, 2018 – January 31, 2019

### Methodology

✓ Social Media Monitoring

### Value Calculation:

Each month, JJ&A's proprietary NTIV® (National Television Impression Value) Factor is derived from the non-discounted or estimated CP:30 rates of more than 2,000 sports, entertainment and news telecasts airing in the United States and Canada over the previous 12 months, along with the corresponding viewing audiences for those programs. As an end result, the continually updated NTIV® Factor represents the cost necessary to reach one viewer (impression), thus establishing an impression-to-cost ratio upon which an entire sponsorship program can be measured.

To determine a sponsorship value, impressions are multiplied by the NTIV® Factor, providing a benchmark wherein all impression-generating components of a program can be consistently measured, valued and compared. Utilization of the NTIV® Factor in establishing a value for the impressions eliminates the need for guesswork in determining individual prices for packaged sponsorship elements such as event signage, public address announcements, or rotating scoreboard advertising.



# Social Media Exposure Analysis University of Central Florida



August 25, 2018 – January 31, 2019

### Methodology

### Impression Calculation:

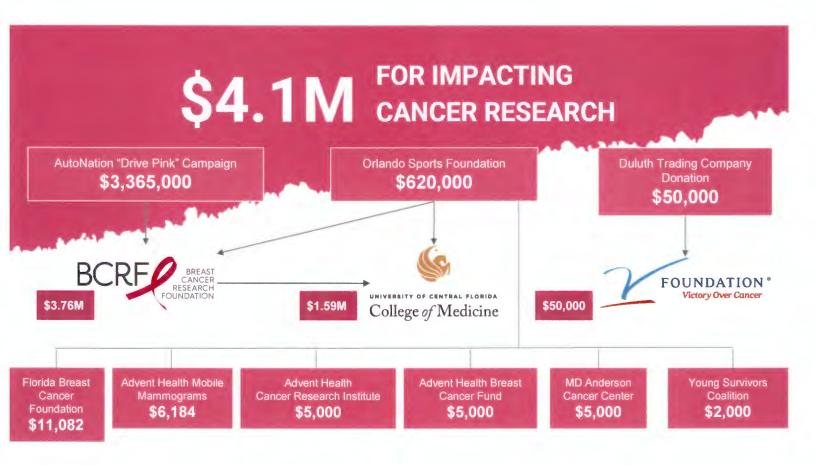
- Social Media outlets monitored include Instagram, Facebook, blogs, Twitter, YouTube, Wikipedia, various comments and reviews.
- Potential reach statistics are provided by Meltwater. Individual user privacy settings may prevent certain posts from registering viewer totals.
- · JJ&A utilized a portion of the reported reach figures (25% for Facebook and Instagram, 75% for Twitter) when calculating estimated impressions/views.

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## Impact Statement







# MAKING AN IMPACT \$592K

BACK INTO THE CENTRAL FLORIDA COMMUNITY

Community Giveback Program \$520,761

- Tickets donated to local veterans. cancer survivors, and students who attend the Cure Bowl at no cost.
- Funds are donated back to community groups who participated in our fundraising program
- Race 2 Cure funds are distributed back to participating charity organizations

U.S. Hunger \$28,300

Over 140,000+ meals packed for those in need

"Cure All-Stars" High School All-Stars Series \$43,300

- \$41,800 Dollars raised to support cancer research, and enrich the lives of local student athletes, providing a platform for local students to take the next step on or off the field
- \$1,500 raised in-kind contributions from local companies to help support the events
- 7 All-Star games (3 Football, Baseball, Softball, Combine and Recruiting Fair) impacting over 850 student athletes annually.

100%

78% of all dollars raised

by OSF go to fund cancer research & awareness.

rating by Charity
Navigator, and
named a 4-star
charity for
accountability,
transparency and
finance

Link

\$53.9M

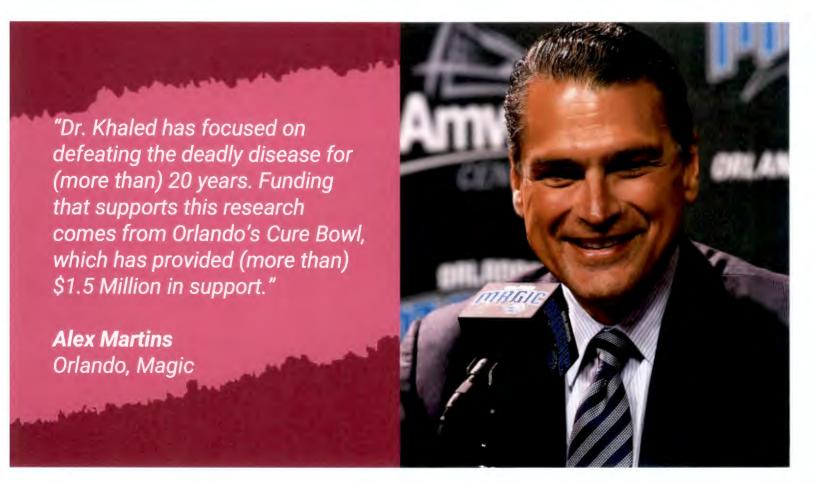
Economic Impact for the Central Florida community \*Data provided by Greater Orlando Sports





Dr. Annette Khaled, Head of the Division of Cancer Research and Associate Professor at the Burnett School of Biomedical Sciences in the College of Medicine at the University of Central Florida is leading our research. Dr. Khaled's research has led to the discovery of a method to kill spreading breast cancer cells. With her therapy en route to clinical trials, Orlando has become one of the world's most significant centers in cancer science.

THE EPICENTER FOR CANCER SCIENCE

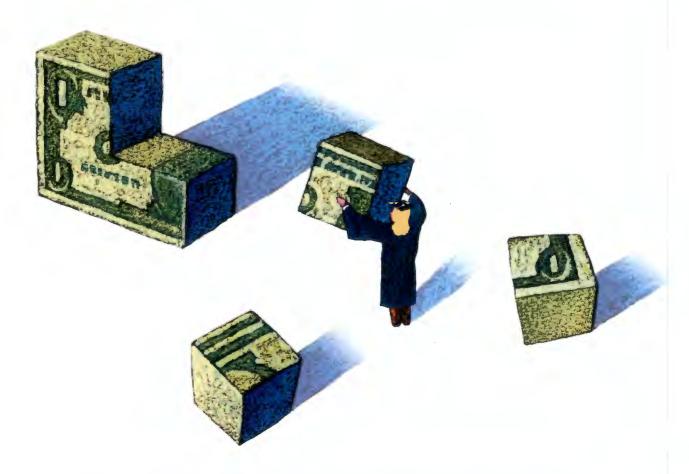




Impact Statement

# The College Payoff

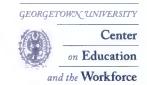
Education, Occupations, Lifetime Earnings



Anthony P. Carnevale, Stephen J. Rose and Ban Cheah

THE GEORGETOWN UNIVERSITY CENTER ON EDUCATION AND THE WORKFORCE

EDUCATION OCCUPATIONS
LIFETIME EARNINGS



### Errata

This sheet lists an error and the corresponding correction for the publication by Anthony P. Carnevale, Stephen J. Rose, and Ban Cheah, titled *The College Payoff: Education, Occupations, Lifetime Earnings*.

### Location: page 1, line 12.

According to the text in this publication, since 1999, the premium on college education has grown to 84 percent. However, our calculations show that the difference between having a bachelor's degree and a high school diploma is 74 percent. This is in agreement with figure 1, page 3, which shows that \$2,268,000 is the lifetime earnings for a bachelor's degree and \$1,304,000 is the lifetime earnings for a high school diploma. The difference in lifetime earnings between these two credentials is 74 percent. This is also in agreement with the text on page 4, paragraph 2, line 9, which states that bachelor's degree holders earn 31 percent more than workers with an associate's degree and 74 percent more than those with just a high school diploma. The inaccuracy was brought to our attention by Janet Salm and Jennifer Engle and we thank them for pointing out this mistake.

### Location: page 1, line 8.

The source of the 2002 Census Bureau study was omitted. The source is:
Day, Jennifer Cheeseman and Eric C. Newburger. 2002. "The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings." U.S. Census Bureau, *Current Population Reports*, P23–210. U.S. Census Bureau, Washington, DC. We thank John Grout for pointing this out to us.

### Location: page 1, line 11.

The word "today" refers to the report publication year 2011.

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	INTRODUCTION

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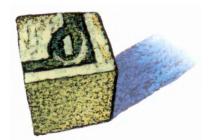
All data in this report are the authors' analysis of the 2007-2009 American Community Survey.

We would like to express our gratitude to the individuals and organizations that have made this report possible. First, we thank the Lumina Foundation and the Bill and Melinda Gates Foundation for their support of our research over the past few years, and in particular, we are grateful for the support of Jamie Merisotis, Hilary Pennington, Holly Zanville, and Parminder Jassal. We are honored to be partners in their mission of promoting postsecondary access and completion for all Americans.

We also want to thank our editor, Vic Caleca, and our designers Michael Lizama, Lisa Milan and Heather Negaard, as well as Jeff Strohl, Nicole Smith, Tamara Jayasundera, Laura Meyer, Michelle Melton, Peter Daniels, and numerous other colleagues, too many to list here, who provided support and insight throughout the process.

A college degree pays off—but by just how much? In this report from the Georgetown University Center on Education and the Workforce, we examine just what a college degree is worth—and what else besides a degree might influence an individual's potential earnings. This report examines lifetime earnings for all education levels and earnings by occupation, age, race/ethnicity, and gender. The data are clear: a college degree is key to economic opportunity, conferring substantially higher earnings on those with credentials than those without. A 2002 Census Bureau study estimated that in 1999, the average lifetime earnings of a Bachelor's degree holder was \$2.7 million (2009 dollars), 75 percent more than that earned by high school graduates in 1999. Today, we find similar numbers—but since 1999, the premium on college education has grown to 84 percent. In other words, over a lifetime, a Bachelor's degree is worth \$2.8 million on average. We present our findings in dollar totals over a career, which is defined as being a full-time, full-year worker from 25 to 64 years old.<sup>2</sup>

Over a lifetime, individuals with a Bachelor's degree make 84% more than those with only a high school diploma.



See the technical appendix for a discussion about the different ways to measure returns, including a discussion on why we do not use net present value in estimating lifetime earnings.

Using full-time, full-year workers helps reduce the earnings differentials produced from temporary labor market exit for reasons like maternity, caretaking, and disability. See technical appendix for why we chose simple dollar value over net present value. The earnings data are based on median values, compared to the Census report, which was based on averages because this metric, in our opinion, gives a clearer picture of the earnings distribution. We use median and not mean because it gives a better overall picture of what is happening, whereas mean can be skewed by outliers. For example, if Bill Gates walks into a room of 50 people, the average income of people in the room shoots towards a billion dollars, but the median income in the room would not significantly change.

Even within the same occupation, more education gets workers more money. Truck drivers with less than high school make \$1.3 million over a lifetime, compared to \$1.5 million for truck drivers with a high school diploma. Elementary and middle school teachers with a Bachelor's degree make \$1.8 million over a lifetime, compared with \$2.2 million for those with a Master's degree.

Despite a general earnings boost conferred by a degree, earnings vary greatly depending on the degree type, age, gender, race/ethnicity, and occupation of an individual. The findings are stark: Women earn less at all degree levels, even when they work as much as men. On average, women who work full-time, full-year earn 25 percent less than men, even at similar education levels. At all levels of educational attainment, African Americans and Latinos earn less than Whites. For example, African Americans and Latinos with Master's degrees have lifetime earnings lower than Whites with Bachelor's degrees.

But variations are not just among people of different degree levels or by gender or race/ ethnicity. In spite of the obvious returns to more education, the job someone is doing — their occupation — also matters when it comes to earnings. In fact, there is a wide variation in earnings by occupation even among people with the same degree. For example, financial managers with a Bachelor's degree earn \$3.1 million over a lifetime, while accountants and auditors with a Bachelor's make \$2.5 million. Clearly, these differences are driven by the occupations, not only by educational attainment.

But that's not all—earnings also vary within the same occupation by education level. For instance, truck drivers with less than a high school diploma make \$1.3 million over a lifetime, compared to \$1.5 million for truck drivers with a high school diploma. Elementary and middle school teachers with a Bachelor's degree make \$1.8 million over a lifetime, compared with \$2.2 million for those with a Master's degree.

Finally, some people with lower educational attainment earn more than their more highly educated counterparts as a result of occupational difference. We call this concept 'overlap.' For example, customer service representatives with an Associate's degree make \$1.4 million over a lifetime, while high school graduates who are supervisors of production workers make \$1.8 million over a lifetime. In fact, 14 percent of people with a high school diploma make at least as much as the median earnings of those with a Bachelor's degree, and 17 percent of people with a Bachelor's degree make more than the median earnings of those with a Professional degree. A lot of this overlap can be explained by the occupations in which individuals are found.

These occupational differences highlight another fact: our traditional understanding of career mobility is from an industry perspective: you work your way up from the mail room to the corner office. This is a relic of an earlier time — today, careers are based on occupation. Because of the emphasis on postsecondary education — which generally means more specific occupational training — workers will be attached more to the occupations they will fill than the industries in which they work. In other words, workers progress up an occupational hierarchy, not an industry-based one.

In the first section of the report, we present earnings data on eight levels of educational attainment, including less than high school, high school, some college/no degree, Associate's degree, Bachelor's degree, Master's degree, Doctoral degree, and Professional degree. Next, we discuss how earnings change across the career of an individual, as related to age and educational attainment. Then, we turn to an often-overlooked fact: earnings within education levels can vary

These earnings, and all earnings presented hereafter, are at the median and not the average.

dramatically. We show the range of earnings within each level, which demonstrates that there is significant overlap of earnings. In other words, those in the upper reaches of one level of educational attainment have significant earnings overlap with those in the lower reaches of another. For example, about 28 percent of workers with Associate's degrees earn more than the median earnings of workers with Bachelor's degrees. This section also presents earnings and education and occupation, which demonstrates that earnings vary not only by educational attainment, but by occupation. Next, we examine how earnings vary not just by educational attainment, but also by gender, and race/ethnicity. In the final section, we identify the ten most common occupations at each education level and their lifetime earnings. In the appendix table, we present earnings and demographic information on nearly 300 specific occupations.

### **PART I:** Lifetime Earnings by Educational Attainment

than High

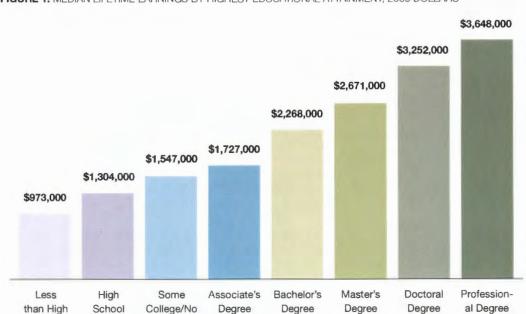
School

School

Diploma

Degree

As Figure 1 shows, median lifetime earnings rise steadily for workers with increasing educational attainment. Overall, the median lifetime earnings for all workers are \$1.7 million, which is just under \$42,000 per year (\$20 per hour). Over a 40-year career, those who didn't earn a high school diploma or GED are expected to bring in less than \$1 million, which translates into slightly more than \$24,000 a year (\$11.70 per hour). Obtaining a high school diploma adds 33 percent more to lifetime earnings; the average annual earnings of people with a high school diploma are \$32,600 (\$15.67 per hour). Clearly, then, the economic penalty for not finishing high school is steep almost \$9,000 a year.



Degree

FIGURE 1: MEDIAN LIFETIME EARNINGS BY HIGHEST EDUCATIONAL ATTAINMENT, 2009 DOLLARS

Having some postsecondary education, even without earning a degree, adds nearly one-quarter of a million dollars to lifetime earnings. Annual earnings rise to \$38,700 (\$18.69 per hour). Getting an Associate's degree adds another bump of nearly \$200,000 in lifetime earnings. At \$43,200 a year (\$20.77 per hour), those with Associate's degrees earn nearly one-third more than those with just a high school diploma. These numbers demonstrate conclusively the advantage of non-baccalaureate postsecondary education.

Getting a Bachelor's degree adds another large increase in lifetime earnings. With median earnings of \$56,700 (\$27.26 per hour), or \$2.3 million over a lifetime, Bachelor's degree holders earn 31 percent more than workers with an Associate's degree and 74 percent more than those with just a high school diploma. Further, obtaining a Bachelor's is also the gateway to entering and completing graduate education. About one-third of Bachelor's degree holders obtain a graduate degree.

All graduate degree holders can expect lifetime earnings at least double that of those with only a high school diploma. For those with a Master's degree (which includes those with Master's degrees in elementary teaching and in business administration), typical lifetime earnings are \$2.7 million (\$66,800 a year or \$32 per hour). Moreover, earnings rise substantially for those with Doctoral and Professional degrees: Doctoral degree holders have lifetime earnings of \$3.3 million (\$81,300 per year; \$39 per hour) while those with Professional degrees (mainly doctors and lawyers) have the highest earnings, making over \$3.6 million over the course of a lifetime (\$91,200 per year; \$44 per hour). This is a 61 percent increase (nearly 1.4 million) over Bachelor's degree holders.

### PART II: Lifetime Earnings by Educational Attainment and Age

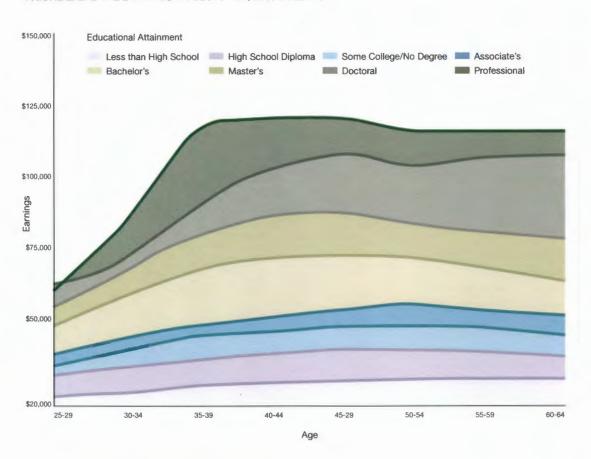
Another way to compare the labor force outcomes of workers with different levels of education is to detail their earnings over the course of their careers. As **Figure 2** shows, the differences among median earnings by education level are much smaller at the beginning of an individual's career (25-29 years old) than later in an individual's working life. Earnings at ages 40-44 are considerably higher for all workers, independent of educational attainment. However, the rise is only 19 percent for high school dropouts and 25 percent for those with high school diplomas. The returns

<sup>&</sup>lt;sup>4</sup>This number hides the fact that people with a Master's in Business Administration earn substantially more than the other large categories of Master's degrees — Master's in Education (and Master's in Fine Arts). However, there are significantly more Master's in Education, which bring the median down.

It should be noted that the choice to use the median values has the biggest effect on those with Bachelor's and graduate degrees because of the very high earnings of top earners. For example, the mean (average) earnings of those with a Bachelor's degree is \$500,000 higher than the median (\$2.7 million) and the Bachelor's to high school premium is 87 percent on the basis of the mean (versus 74% on the basis of the median). The mean of those with a Master's degree rises to \$3.3 million and for Doctoral degree holders to \$3.9 million. But the biggest effect of choosing median over mean is seen with Professional degree holders whose mean (\$5.1 million) is nearly \$1.5 million higher than its median.

to career advancement rise to 35 percent for those with an Associate's degree and some college/ no degree. By contrast, earnings of Bachelor's degree holders in the workforce grow by 50 percent over these years, those with Master's degree grow by 57 percent, and those with a Doctoral degree grow by 65 percent. By far, the biggest gain over the early years of one's career involves those with Professional degrees. Workers with Professional degrees earn 100 percent more in their 40's than they do in their initial years in the workforce.

FIGURE 2: LIFETIME EARNINGS TRAJECTORIES, 2009 DOLLARS



There is significant overlap in earnings at all education levels: 17% of people with a Bachelor's degree make more than the median of those with a Professional degree, for example.

### PART III: Variations in Earnings by Education and Occupation: Earnings Overlap

Thus far, have we focused on the typical person at each educational level by using median earnings. It is important to also note that there is wide variation in earnings within educational levels, which means that the highest earners of a lower education level earn more than the typical worker at a higher level of educational attainment. We call this phenomenon "overlap." Overlap is very much related to differences in earnings by occupation.

**Table 1** shows what share of less-educated workers earn the same or more as those at the median in the next education level. For example, the bottom leftmost number of 31 percent means that 31 percent of workers without a high school diploma earn more than the median earnings of workers with a high school diploma. Moving up the "Less than high school" column, the highest earning 16 percent of this group earns more than the median of those with Associate's degrees, and 7 percent of people with less than a high school diploma earn more than the typical worker with a Bachelor's degree. At the extreme, the most successful 1 percent of less than high school workers has at least the median lifetime earnings of those with a Professional degree.

**TABLE 1:** PERCENT OF PEOPLE IN A PARTICULAR EDUCATION LEVEL EARNING MORE THAN THOSE AT A HIGHER EDUCATIONAL LEVEL

How to read this chart		Less than High School	High School Diploma	Some College/No Degree	Associate's	Bachelor's	Master's	Doctoral
Taking the less than high school column and reading	Professional	1.3%	2.4%	4.8%	4.9%	17.2%	24.2%	36.9%
down, it shows that 1.3% of people with less than a high school education make the	Doctoral	2.3%	4.6%	8.6%	9.5%	26.7%	35.5%	
same amount or more as the median earnings of someone	Master's	4.6%	9.2%	15.9%	19.2%	39.9%	<u>_</u> .	1
with a Professional degree. 2.3% of people with less than high school make the same	Bachelor's	7.3%	14.3%	23.1%	28.2%			
amount or more as the median for someone with a Doctoral	Associate's	16.3%	29.8%	41.9%			-	
degree, 4.6% of people with less than a high school educa- tion make the same amount	Some College/ No Degree	21.3%	36.6%				<b>.</b>	
or mare than someone with a Master's degree, and so on.	High School Diploma	31.4%	•	<u>.</u>	1			

TABLE 1A: LIFETIME EARNINGS VARIATIONS WITHIN EDUCATION LEVELS, 2009 DOLLARS

	25th Percentile	75th Percentile	Interquartile Range
Less than High School	644,600	1,464,000	819,400
High School Diploma	867,500	1,889,500	1,022,000
Some College/No Degree	1,035,500	2,252,100	1,216,700
Associate's Degree	1,177,100	2,426,300	1,249,200
Bachelor's Degree	1,490,600	3,388,700	1,898,100
Master's Degree	1,864,400	3,835,600	1,971,200
Doctoral Degree	2,150,400	4,743,400	2,592,900
Professional Degree	2,004,600	6,472,800	4,468,200

Continuing up the lower diagonal, 37 percent of workers with a high school diploma have lifetime earnings greater than the median amount earned by workers with some college/no degree. Since some college/no degree has a median very close to that of Associate-degree holders, it is not surprising that the overlap is very high — 42 percent of some college/no degree workers have lifetime earnings more than the median of workers with an Associate's degree. However, the next step — from a two- to a four-year degree — is a big one, and only the most successful 28 percent of Associate's degree workers earn more than the median earnings of workers with a Bachelor's degree.

Another way to look at earnings variation within a specific education level is "interquartile range"—the difference between the lifetime earnings at the 75th and 25th percentile among people with the same highest educational attainment. For example, among those who did not finish high school, median lifetime earnings amount to \$973,000. However, at the 25th percentile, workers earn \$645,000 over a lifetime, while at the 75th percentile workers earn \$1.5 million over a lifetime. As Table 1A shows, the interquartile range is approximately 1—4.5 million dollars (which is about 80 percent of the value of the median for each education level, although it increases as educational attainment increases). The largest variation (120% of the median) occurs among those with Professional degrees, due to very high earnings at the 75th percentile of this group.

Finally, **Figure 3** shows the large amount of overlap when interquartile ranges are aligned with progressively higher levels of education. The overlap would even be greater if we didn't limit the low values to the 25th percentile and the high values to the 75th percentile.

As stated above, much of the overlap can be attributed to differences in occupation. As **Figure 4** shows, there is great variation among earnings for those with the same educational attainment in different occupations. Moreover, within the same occupation, different education levels see differences in earnings.

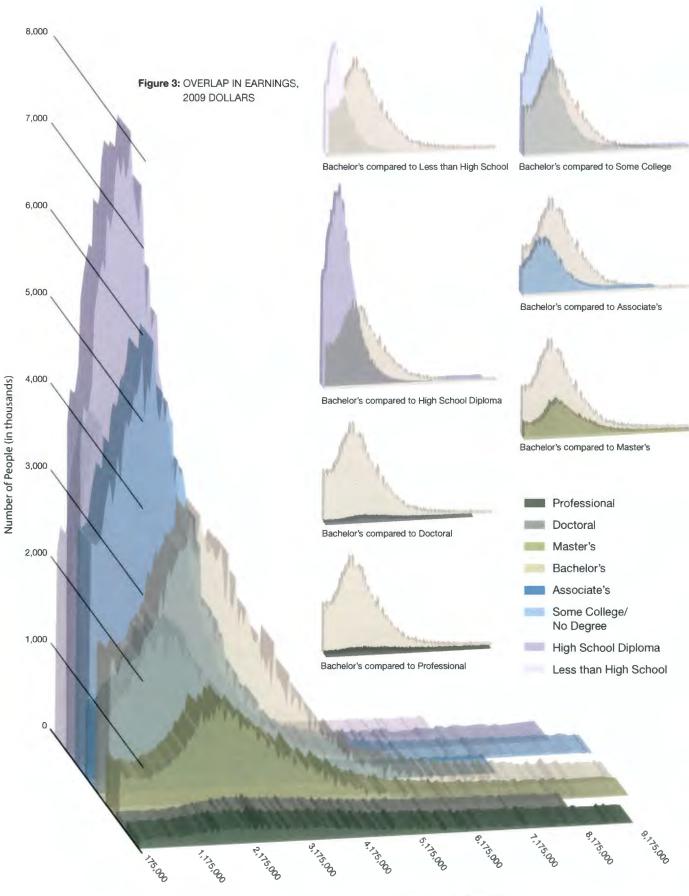
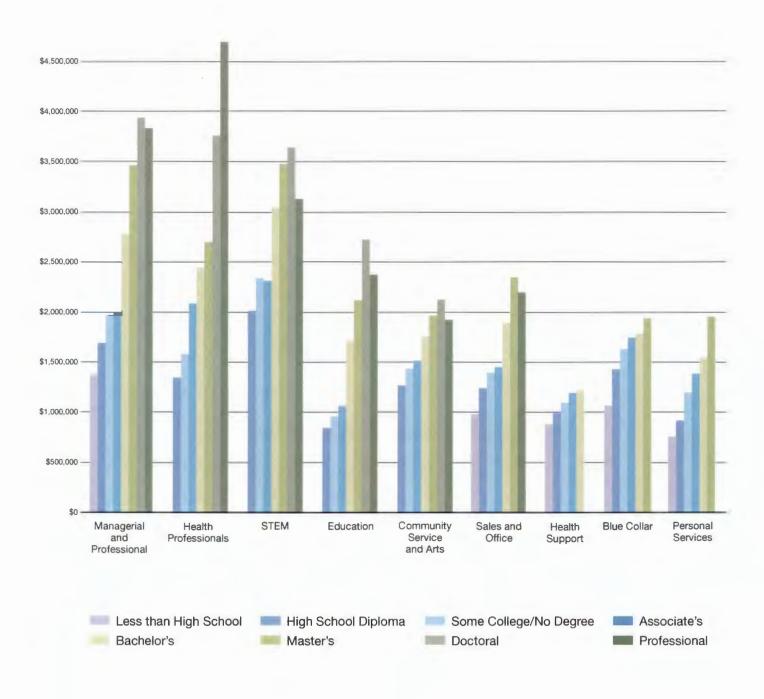


Figure 4: LIFETIME EARNINGS BY EDUCATION AND OCCUPATION, 2009 DOLLARS



Women need a Doctoral or Professional degree to make more than men with a Bachelor's degree.

### PART IV: Lifetime Earnings by Educational Attainment, Gender, and Race/Ethnicity

Figure 5 shows the median lifetime earnings of male and female workers for each of our eight education levels. As can be seen in Table 2, women with the same educational attainment as men earn about a quarter less than their male counterparts over a lifetime. This is consistent with the yearly reported gender earnings gap of 23 percent, which is based on comparing full-time, full-year workers in a single year. For example, over the course of their lifetime, women who obtain a Bachelor's degree make over \$650,000 less than men with the same level of education. The smallest gender gaps within postsecondary educational bands occurs among those with Associate's degrees and those with Doctoral degrees, where women earn about \$400,000 and \$600,000 less than men over a lifetime, respectively. However, the largest gender gap in earnings is for those with Professional degrees: men earn about a million dollar more over a lifetime than women with these degrees.

Had we defined lifetime earnings on the basis of all workers, including those who had periods with no earnings (for example, women who leave the labor force for childbearing/child rearing, or anyone who leaves for disability or other reasons), we would see even higher gaps between the earnings of men and women because women are much more likely than men to be out of the labor force for spells of time (and thus, not regularly work full-time, full-year). Considering all

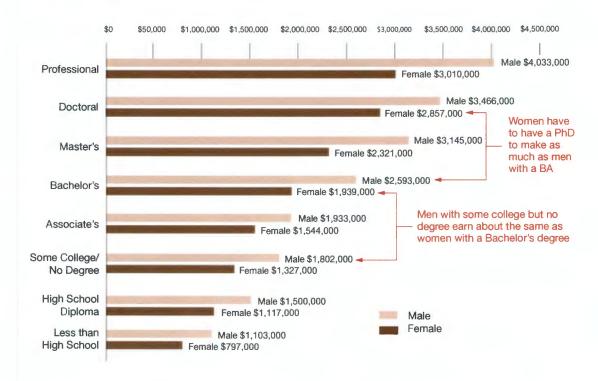


Figure 5: MALE AND FEMALE EARNINGS BY EDUCATIONAL ATTAINMENT

workers — not just those who work full-time, full-year — the gender gap in earnings widens by about 20 percentage points (with the exception of those with a Master's or Doctoral degree where it only widens 6–9 percentage points).

At all levels of educational attainment, women earn, on average, 25% less than men.

TABLE 2: GENDER GAP (FEMALE EARNINGS RELATIVE TO MALE EARNINGS)

	Full-time, Full-Year Workers (ideal)	Workers with Typical Experiences with the Labor Market
Less than High School	-27.7%	-90.0%
High School Diploma	-25.5%	-52.2%
Some College/No Degree	-26.4%	-47.1%
Associate's Degree	-20.1%	-37.6%
Bachelor's Degree	-25.2%	-43.7%
Master's Degree	-26.2%	-33.7%
Doctoral Degree	-17.6%	-26.7%
Professional Degree	-25.4%	-44.6%

Because so few women with less than a high school diploma work, the earnings gap among this group expands to an alarming 90 percent. Women with just a high school diploma are also likely to be out of the labor force and their lifetime earnings gap versus comparable males is 52 percent. At the some college/no degree, Bachelor's, and Professional degree levels, the gender gap stands at a hefty 45 percent. The smallest gender gaps for the 'typical' worker can be found at the Associate's degree (38%), Master's degree (34%), and Doctoral degree (27%) levels.

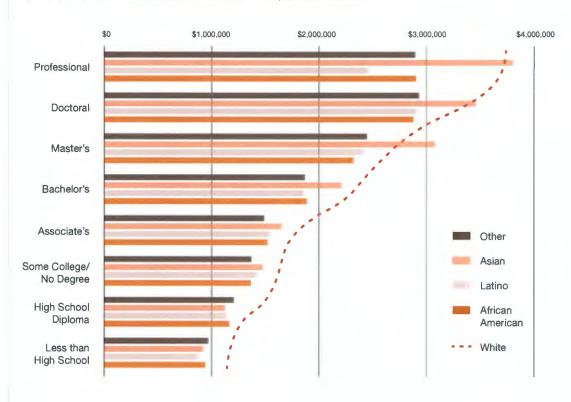
Wage disparities also are visible when lifetime earnings are examined on the basis of race or ethnicity. Historically, non-Hispanic Whites (hereafter, Whites) have had higher earnings than those of other races/ethnicities. There is now an exception, though, because Asians — especially highly-educated Asians — earn wages comparable to Whites. Latinos, meanwhile, have median lifetime earnings 34 percent lower than Whites across the board. African Americans make 23 percent less than Whites. A similar gap (22%) exists for Other Races/Ethnicities (Native Americans, Pacific Islanders, and others).

As **Figure 6** shows, there is a lot of variation of the relative earnings of people of different races/ethnicities relative to Whites. Among African Americans, for example, lifetime earnings are 13-16 percent less than Whites with three prominent exceptions — less than high school (18% less than Whites), Bachelor's degrees (20% less than Whites), and Professional degrees (23% less than Whites). Latinos have a similar pattern, but the earnings gap is generally in a lower range (10-12%). A larger gap exists among Latinos with less than high school (23% less than Whites), high school (18% less than Whites), Bachelor's degrees (21% less than Whites), and Professional degrees (18% less than Whites).

At the highest levels of educational attainment, African Americans and Latinos lag far behind the earnings of their White and Asian counterparts—over a lifetime, they make close to a million dollars less.

For African Americans and Latinos, there are large gaps between earnings when compared to Whites, especially at the lowest levels of educational attainment. It should be noted that these gaps would be larger if the full-time, full-year approach was expanded to include periods when workers were out of the labor force. While the gaps are smallest at the some college/no degree, Associate's, Master's, and Doctoral degree levels, they are large again among Bachelor's and Professional degree holders. These patterns suggest that more study is needed regarding the nature of occupational concentration by race/ethnicity at the high and low ends of the occupational ladder.

FIGURE 6: LIFETIME EARNINGS BY RACE/ETHNICITY, 2009 DOLLARS



African Americans with Bachelor's degrees make 20% less than Whites with Bachelor's degrees. Asian workers, by contrast, have the most varied earnings relative to Whites. Among the least-educated Asian workers — high school graduates and dropouts — lifetime earnings are 20 percent below Whites with the same education levels. The gap falls to 6-9 percent for those with some college/no degree, an Associate's degree, or a Bachelor's degree. However, among those with graduate degrees, Asian workers have higher lifetime earnings than Whites.

### PART V: Top Ten Occupations by Educational Attainment

Here we detail the ten most common occupations for each education level. There are 300 detailed occupations, which are all presented in the appendix table.

**Table 3** presents the ten most common occupations for those who did not finish high school. Not surprisingly, virtually all of these jobs are low-skill manual labor and service jobs. The blue collar 'male' jobs of truck drivers, carpenters, construction laborers, and other production workers earn more than the median of all workers at this education level.

TABLE 3: TOP TEN OCCUPATIONS FOR THOSE WITH LESS THAN HIGH SCHOOL

	Share of all Occupations for those with less than High School	Lifetime Earnings (2009 dollars)
All Occupations, Less than High School		\$973,000
Driver/Sales Workers and Truck Drivers	6.1%	1,300,000
Janitors and Building Cleaners	4.6%	855,000
Cooks	3.3%	761,000
Construction Laborers	3.2%	1,037,000
Maids and Housekeeping Cleaners	3.1%	663,000
Laborers and Material Movers	2.9%	965,000
Maintenance Workers	2.7%	772,000
Other Agricultural Workers	2.6%	814,000
Other Production Workers	2.3%	980,000
Carpenters	2.2%	1,069,000

**Table 4** lists the most common occupations for those with a high school diploma and no postsecondary education, many of which are also found in **Table 3**. However, the difference between having and not having a high school degree leads to much higher earnings in these same occupations. For example, driver/sales workers and truck drivers with a high school diploma have lifetime earnings \$230,000 higher than workers in the same field without a high school diploma. There is an equivalent bump for janitors, other production workers, and laborers and material handlers. In this table, however, there are also now new titles with greater responsibilities and pay — other managers, supervisors and managers of retail sales workers, and supervisors and managers of production workers.

TABLE 4: TOP TEN OCCUPATIONS, HIGH SCHOOL DIPLOMA

	Share of all Occupations High School Diploma	Lifetime Earnings (2009 dollars
All Occupations, High School Diploma		\$1,304,000
Driver/Sales Workers and Truck Drivers	4.9%	1,531,000
Secretaries and Administrative Assistants	3.7%	1,264,000
Supervisors/Managers of Retail Sales Workers	3.3%	1,345,000
Janitors and Building Cleaners	2.6%	1,048,000
Laborers and Movers	2.2%	1,199,000
Retail Salespersons	1.8%	1,134,000
Nursing and Home Health Aides	1.8%	966,000
Other Production Workers	1.8%	1,308,000
Other Managers	1.7%	1,876,000
Supervisors/Managers of Production Worker	1.6%	1,809,000

Table 5 presents the occupations where workers with some college/no degree are concentrated. While some of these occupations also appeared in Table 4, the relative pay within these common occupations vary greatly. On the one hand, driver/sales workers and truck drivers and nursing and home health aides have virtually the same lifetime earnings. By contrast, retail salespersons and other managers with some college/no degree make considerably more than their counterparts with just a high school diploma. Finally, secretaries and administrative assistants make slightly more if they have some postsecondary education.

This variation shows that some jobs have narrowly defined tasks and that college education does not always lead to extra earnings. In other jobs, however, there is more room for personal initiative, which permits those with college-level skills to perform more productive activities and attain higher pay. Further, those with some college/no degree expand their access to more supervisory, financial, and high sales functions.

TABLE 5: TOP TEN OCCUPATIONS, SOME COLLEGE/NO DEGREE

	Share of all Occupations, Some College/ No Degree	Lifetime Earnings (2009 dollars)
All Occupations, Some College/No Degree		\$1,547,000
Secretaries and Administrative Assistants	4.7%	1,348,000
Supervisors/Managers of Retail Sales Workers	3.4%	1,507,000
Other Managers	2.8%	2,220,000
Drivers/Sales Workers and Truck Drivers	2.4%	1,569,000
Accounting, and Auditing Clerks	2.1%	1,391,000
Supervisors/Managers of Administrative Support Workers	2.0%	1,657,000
Customer Service Representatives	2.0%	1,331,000
Retail Salespersons	2.0%	1,320,000
Nursing and Home Health Aides	1.6%	1,030,000
Sales Representatives, Wholesale and Manufacturing	1.5%	2,009,000

As Table 6 shows, registered nurse is by far the most common occupation among workers with an Associate's degree; this occupation pays considerably more than what is earned at the median for all workers with an Associate's degree. Medical technologists and technicians also make significantly more than the median for Associate's degree holders. For many other jobs, however, earnings for those with some college/no degree and those with an Associate's are quite similar; secretaries and administrative assistants, other managers, supervisory of retail sales workers and administrative support workers, accounting, customer service representatives, and retail sales workers all earn similar pay in the same occupation at the some college/no degree and Associate's degree level.

TABLE 6: TOP TEN OCCUPATIONS, ASSOCIATE'S DEGREES

	Share of all Occupations Associate's Degree	Lifetime Earnings (2009 dollars
All Occupations, Associate's Degree		\$1,728,000
Registered Nurses	9.1%	2,267,000
Secretaries and Administrative Assistants	4.3%	1,385,000
Other Managers	2.6%	2,292,000
Supervisors/Managers of Retail Sales Workers	2.5%	1,531,000
Accountants and Auditors	2.0%	1,636,000
Supervisors/Managers of Administrative Support Workers	1.7%	1,736,000
Customer Service Representatives	1.6%	1,379,000
Retail Salespersons	1.5%	1,312,000
Medical Technologists and Technicians	1.2%	2,187,000
Accounting, and Auditing Clerks	1.2%	1,327,000

As Table 7 indicates, Managerial and Professional occupations are the most common occupations for those with Bachelor's degrees. With the exception of elementary and middle school teachers and supervisors of retail workers, lifetime earnings are much higher at the Bachelor's level than for less-educated workers. Registered nurses earn \$260,000 more over a lifetime if they have a Bachelor's rather than an Associate's, while accountants/auditors and other managers with a Bachelor's have extra lifetime earnings of approximately \$800,000 more than their counterparts with Associate's degrees. New occupations such as chief executives, financial managers, computer software engineers, and marketing and sales managers all have lifetime earnings over \$3 million with only a Bachelor's, close to the median lifetime earnings of Doctoral degree holders.

TABLE 7: TOP TEN OCCUPATIONS, BACHELOR'S DEGREES

	Share of all Occupations Bachelor's Degree	Lifetime Earnings (2009 dollars)
All Occupations, Bachelor's Degree		\$2,268,000
Elementary and Middle School Teachers	5.1%	1,757,000
Other Managers	4.6%	3,094,000
Accountants and Auditors	4.6%	2,422,000
Registered Nurses	4.0%	2,527,000
Sales Representatives, Wholesale and Manufacturing	2.5%	3,062,000
Suoervisors/Managers of Retail Sales Workers	2.3%	1,807,000
Chief Executives	1.9%	4,483,000
Financial Managers	1.9%	3,081,000
Computer Software Engineers	1.8%	3,554,000
Marketing and Sales Managers	1.8%	3,494,000

Those who obtain Master's degrees seek specialization, which limits the number of occupations in which they can seek work. **Table 8** details the top ten occupations for those with a Master's degree. Once again, elementary and middle school teachers lead the way because of the large number of teachers with a Master's in education. Many of the top jobs are common to both those with Bachelor's degrees (as shown in **Table 7**) and those with Master's degrees (as shown in **Table 8**). The difference is that at the graduate level workers have significantly higher lifetime earnings; for example, computer software engineers make nearly \$300,000 extra with a Master's degree over a lifetime, while elementary and middle school teachers make \$400,000 extra with a Master's degree. This is clear evidence that additional educational preparation, which is often only two years of schoolwork, leads to a significant payoff — but that payoff varies by occupation.

TABLE 8: TOP TEN OCCUPATIONS, MASTER'S DEGREES

All Occupations, Master's Degree	Share of all Occupations Master's Degree	Lifetime Earnings (2009 dollars) \$2,671,000
Elementary and Middle School Teachers	13.0%	2,155,000
Other Managers	5.4%	3,762,000
Education Administrators	4.0%	2,786,000
Accountants and Auditors	3.7%	3,030,000
Secondary School Teachers	3.1%	2,217,000
Computer Software Engineers	2.6%	3,835,000
Registered Nurses	2.5%	3,044,000
Postsecondary Teachers	2.5%	2,024,000
Counselors	2.4%	1,945,000
Chief Executives	2.4%	5,160,000

Traditionally, Doctoral degree holders have worked predominantly within academia, though today only 26 percent of Doctoral degree holders work as postsecondary teachers or professors (as shown in **Table 10**). Yet a number of people can have both Doctoral and Professional degrees (e.g., physicians, lawyers, etc.) and are put in the Doctoral degree category because the Census treats a Doctoral degree as a higher attainment level than a Professional degree (and defers to the higher educational attainment level). Doctors and lawyers can seek additional education (Doctoral degrees), though many of those who get a Doctoral degree in addition to their Professional degree tend to teach or do research at the university level rather than pursue private practice (which can be more remunerative). Finally, there are a few workers with Doctoral degrees who are categorized as business executives (other managers and chief executives); these may be scientists or technical specialists who have become company leaders and have been substantially rewarded as a result.

TABLE 10: TOP TEN OCCUPATIONS, DOCTORAL DEGREES

	Share of all Occupations Doctoral	Lifetime Earnings (2009 dollars)
All Occupations, Doctoral Degree		\$3,252,000
Postsecondary Teachers	26.0%	2,803,000
Physicians and Surgeons	5.7%	5,085,000
Physical Scientists	5.2%	3,577,000
Lawyers and Judges	4.7%	3,676,000
Education Administrators	4.6%	3,465,000
Other Managers	3.7%	4,670,000
Psychologists	3.5%	2,515,000
Medical Scientists	3.5%	3,259,000
Pharmacists	2.6%	4,358,000
Chief Executives	2.1%	5,131,000

Those who get Professional degrees receive specialized training for their occupations, in particular in law and medicine. About a third (32%) of these workers are practicing lawyers and judges, and another third (32%) obtained a degree in one of the medical specialties (physicians and surgeons, dentists, pharmacists, veterinarians, and nurses). The remaining occupations in the top ten are other managers, teachers, accountants, and auditors. The managerial field is particularly undercounted because of the plethora of industry-specific managers. There are also several occupations in this list that pay a similar amount as those with just a Master's degree: elementary and secondary school teachers, accountants and auditors, and registered nurses (who actually make less than their counterparts with a Master's degree).

TABLE 9: TOP TEN OCCUPATIONS, PROFESSIONAL DEGREES

	Share of all Occupations Professional degree	Lifetime Earnings (2009 dollars)
All Occupations, Professional Degree		\$3,648,000
Lawyers and Judges	31.5%	4,032,000
Physicians and Surgeons	22.8%	6,172,000
Dentists	3.4%	4,035,000
Elementary and Middle School Teachers	2.8%	2,292,000
Pharmacists	2.3%	4,420,000
Veterinarians	2.1%	2,981,000
Accountants and Auditors	1.7%	3,203,000
Other Managers	1.7%	3,873,000
Postsecondary Teachers	1.6%	2,919,000
Registered Nurses	1.5%	2,722,000

#### CONCLUSION

No matter how you cut it, more education pays. The data presented here show that there is a sizeable economic return to going to college and earning at least a two- or four-year degree. The 33 percent of Bachelor's degree holders that continue on to graduate and professional schools have even more prosperous futures ahead. Moreover, the difference in earnings between those who go to college and those who don't is growing — meaning that postsecondary education is more important than ever.

However, as we have demonstrated, there are significant variations based on age, gender, race/ethnicity, and above all, occupation. In the following appendices, we present lifetime earnings by education level for 300 distinct occupations. These numbers prove that higher education opens up the highest-paying jobs, but also that there is a range of pay within jobs and that more highly-educated people usually earn considerably more than their less-educated counterparts in the same occupation.



## **TECHNICAL APPENDIX**

We reproduced the methodology originally used in the 2002 Census report on lifetime earnings. They describe this approach as:

"Synthetic estimates of work-life earnings are created by using the working population's 1-year annual earnings and summing their age-specific average earnings for people ages 25 to 64 years. The resulting totals represent what individuals with the same educational level could expect to earn, on average, in today's dollars, during a hypothetical 40-year working life."

Specifically, the Census approach looks at 5-year age groups — 25-29, 30-34, etc. — to get an average for each age group and then sums each of these 5-year averages of a particular demographic and/or educational group to estimate the average 40-year degree for that group.

This approach is an estimate and is not based on real careers of people. In real life, people's careers are much more volatile—
they change jobs, have wide yearly earnings variations, have periods of time where they are not working, often start working before age 25, and may retire before age 64 or work well past it. Also, by only using earnings levels from 2009 data, these estimates are only approximations of what individuals who are 25 years old today can expect to earn over their lifetime. It is quite probable that productivity growth will lead to higher earnings in the future and therefore the career of today's young adults will lead to higher lifetime earnings than presented here.

We differ from the Census in that we use median earnings rather than average earnings. As noted in footnote 2, median earnings tend to be more representative of "typical" experiences than average earnings. To construct medians and the 25th and 75th percentile groups, we combine the medians, 25th, and 75th percentile levels in the different 5-year periods rather than the averages.

Since no data source exists with a large number of cases that tracks individuals throughout their careers by earnings, occupation, and hours worked per year, this approach is the only viable one to construct even a rough estimate of lifetime earnings. While most people don't increase their education level after age 25, very few people work full-time, full-year in the same narrow occupation. The numbers presented here should be viewed as representing the broad earning differences that exist based on education, gender, race/ethnicity, and occupation and not exact representations of an individual's lifetime earnings.

## Simple Dollars versus Net Present Value

A series of commentators objected to the Census computations because it treated a dollar today the same as a dollar 30 years later in one's career (e.g., it didn't take into account net present value). The essence of this criticism is the financial principle that a dollar in the future is worth less than dollar today. A person who wins a million dollars in the lottery has the choice of receiving \$50,000 per year for 20 years or taking a lump sum of \$450,000 to \$550,000 (depending on the state and current interest rate on government bonds). The reason for this discrepancy is that those who take the money today could be earning money by investing it (in government bonds, for example).

Simple financial calculators can turn a stream of earnings into a "net present discounted value" with a specific discounting rate. We chose 2.5% because this represents the real interest rate of long term government bonds.

Thus, the \$2,789,000 lifetime earnings of a Bachelor's degree holder has a current lump sum value of \$1,712,000, which is 39 percent less than the simple adding up of yearly earnings. Using discounted values, the dollar gap between Bachelor's degree holders and high school graduates falls to \$786,000 (from nearly \$1.3 million).

Even with discounted dollars, workers with a Bachelor's degree today can expect to have lifetime earnings \$593,000 higher than workers with only a high school diploma. Therefore, it is still worth the time and investment to obtain a college education.

For those interested in present discounted values, simply reducing each of these numbers by 39 percent will result in a satisfactory estimate.

Full-Time, Full-Year Workers Another important choice in determining lifetime earnings is whether to base these computations on an "ideal" career in which the person works full-time, full-year for each of 40 years from 25 to 64. In reality, only about half of men and a small share of women meet these criteria, since major interruptions, including temporary unemployment, illness, early retirement, and time taken off to meet family responsibilities, often take people out of the workforce for some period of time. Over a recent 15-year period, Rose and Hartmann (2004) found that 74 percent of men and 26 percent of women were "super attached workers"-working at least 1,750 hours in 12 of 15 years. Following the Census approach, we chose to compute lifetime earnings on the basis of full-time, full-year workers and alert the reader that many workers, especially female workers, don't meet this standard.

## But what if we take the costs of college

into account? James Altucher and others have been vocal that the costs of college change the equation and make going to college not worth it. In many media appearances, he has claimed that the \$200,000-\$250,000 that parents might spend on a college education could easily return over \$2 million if it were invested long-term in stocks and bonds rather than spent on college.

This argument contains several errors. To begin with, only a very small share of private colleges cost between \$200,000-\$250,000, and no public college costs this much; only 10% of 2008 Bachelor's degree students had total costs (tuition, fees, books, room, board, transportation, and other expenses) of \$50,000 or more per year. Second, more than two-thirds (65%) of students don't pay the full price of college and have access to grants and lowinterest loans. Third, the multimillion-dollar payoff assumes that neither the principal nor the yearly profits on the investment will be used for 40 years. However, it is absurd to suggest that people with a high school education are likely to leave their investments untouched for 40 years, because, as we have just demonstrated, they are more likely to earn much less than their more highly educated counterparts and need the money. The reality is that 20- and 30-year olds have very low savings rates because this is the time when they are raising their own children. Most saving occurs after age 40, and are done by people with high earnings. The median net worth of people approaching retirement with a Bachelor's degree is four times higher than those with only a high school diploma. It is a fantasy to think that starting one's career after high school and using the money that might have been used to pay for college will lead to a gold mine later in life.

2.7

2.7

2.0

2.2

Cost Estimators

N

3.1

10.9

37.5

46.2

12.9

73.8

88.88

11.0

1.5

\* Percent White, Percent African American and Percent Latino rows total to 100% (may not add to exactly 100% due to missing other races.)

11.7

26.2

29.8

41.8

32.0

90

6.5

2

## Lifetime Earnings by Degree Distributions of Race/Ethnicity, Gender, and (in millions of dollars) Educational Attainment within Occupations High School Some Associate's Bachelor's Master's/ Gender Percent Percent than High college African Some Col-BA and Profes-Earnings Female White. Latino• High School Diploma sinnal/ Gap % American • School or lege and Graduate Doctoral less Associate's Human Resources, Training, and Labor Relations Specialists 1.7 1.9 1.9 2.3 2.9 24.2 70.2 72.2 13.9 9.3 13.6 33.4 53.0 Management Analysts 2.2 2.9 3.5 24.6 40.6 78.5 6.7 5.3 5.4 18.4 76.2 Other Business Operations Specialists 1.6 1.8 2.3 3.1 39.7 60.6 69.5 14.0 9.3 15.5 33.5 51.0 Accountants and Auditors 1.5 1.7 2.4 3.0 40.8 8.8 4.5 1.6 58.2 73.6 6.6 18.6 76.9 2.0 33.2 89.1 16.5 3.9 4.0 12.1 36.1 51.8 Budget, Credit, Financial Analysts 2.7 3.8 40.1 49.0 72.6 10.5 6.8 6.0 20.3 73.7 Personal Financial Advisors 2.0 3.1 3.8 53.5 28.7 79.9 7.0 6.6 4.9 17.1 78.1 Insurance Underwriters 2.7 42.6 68.9 78.9 9.5 6.8 17.4 33.4 49.2 Financial Examiners, Financial Specialists, all other 2.7 84.8 54.7 72.5 13.2 8.5 13.9 28.3 57.8 Loan Counselors and Officers 1.6 1.8 2.4 2.9 44.7 52.4 76.7 8.4 10.2 14.7 35.1 50.2 Tax Examiners, Collectors, Revenue Agents, and Preparers 2.2 23.0 61.1 66.1 17.5 11.5 15.5 33.4 51.2 2.2 2.4 2.3 3.0 3.5 14.8 29.3 70.0 9.2 5.9 5.9 28.4 65.6 Computer Programmers 2.7 2.6 3.0 3.3 11.0 24.0 74.4 4.7 4.4 5.4 24.4 70.2 Computer Software Engineers 3.7 3.1 3.0 3.6 3.9 16.5 20.4 63.4 4.5 2.8 15.1 82.1 Computer Support Specialists 1.9 2.1 2.0 2.4 2.6 15.0 29.4 72.5 11.1 7.8 12.1 47.0 40.9 Database Administrators 3.0 28.9 32.6 73.0 6.2 5.1 5.5 26.2 68.3 Network and Computer Systems Administrators 2.5 2.5 2.9 3.3 15.0 18.5 77.2 8.2 6.0 8.5 39.3 52.3 2.4 2.5 2.7 3.4 19.1 23.0 74.7 8.8 6.4 7.9 36.4 55.7 Actuaries, Miscellaneous Mathematical Science Occupations, including Mathematicians and Statisticans 3.8 23.6 40.3 73.8 4.2 4.6 1.2 6.3 92.4 Operations Research Analysts 3.0 3.5 14.6 49.0 72.7 12.6 6.2 7.1 25.5 67.4 Architects, except Naval 2.8 2.9 9.7 7.0 89.9 23.0 80.6 1.8 3.3 8.3 Surveyors, Cartographers, and Photogrammetrists, and Surveying and Mapping Technicians 1.9 18.2 12.6 85.7 2.9 8.1 23.4 47.2 29.4 Aerospace, Biomedical, Agricultural, Chemical, Computer Hardware, Environmental, Marine, Materials, Petroleum, Mining, Geological 3.6 4.0 13.9 12.8 75.6 4.9 5.6 3.4 14,3 82.2 3.2 3.7 16.9 11.1 79.3 44 5.7 3.5 11.5 85.0 Electrical and Electronics Engineers 3.4 4.1 12.8 8.3 72.4 4.7 5.6 4.2 17.9 77.9 Industrial Engineers, including Health and Safety 3.0 3.4 8.4 79.7 6.2 18.3 4.1 8.2 23.0 68.8

 Percent White. Percent African American and Percent Latino rows total to 100% (may not add to exactly 100% due to missing other races.)

		(il	n millions	of dollars)					Educat	ional Atta	unment	within O	ccupation	าร
Description	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Perce BA ar Gradu
Mechanical Engineers					3.2	3.6	10.5	7.1	81.7	3.5	5.4	5.2	21.5	73.4
Miscellaneous Engineers, including Nuclear Engineers			2.7	2.6	3.4	3.8	4.7	11.6	74.7	4.4	5.2	3.7	15.4	80.
Drafters			2.0	1.9	2.0		12.4	17.3	81.4	4.3	8.5	14.1	62.2	23.
Engineering Technicians: except Drafters		1.9	2.1	2.2	2.2		31.3	16.0	72.9	9.6	9.4	26.4	56.9	16.
Agricultural and Food, Biological, Conservation Scientists and Foresters, Environmental Scientists and Geoscientists					2.3	2.8	2.9	32.9	84.0	4.4	4.1	2.5	7.6	89.
Medical Scientists						3.1	16.4	51.3	59.9	5.1	4.8	1.0	2.0	97.
Astronomers and Physicists, Atmospheric and Space, Physical Scientists, all other					2.8	3.4	29.5	33.4	70.0	3.0	4.6	.7	2.4	96
Chemists and Materials Scientists					2.5	3.4	7.7	36.0	67.9	7.6	5.4	1.2	7.4	91
Economists, Market and Survey Researchers, Urban and Regional Planners. Miscellaneous Social Scientists, ncluding Sociologists					2.7	3.4	29.6	47.1	79.7	5.2	6.1	3.2	11.1	85
Psychologists						2.2	8.6	62.4	84.2	6.6	6.0	A	.9	98
Agricultural/Food Science, Biological, Geological/Petro- eum and Miscellaneous Life, Physical and Social Science fechnicians, including Social Science Nuclear Technicians Research Assistants		1.5	1.7		2.0		15.9	42.7	72.9	7.8	10.1	21.7	36.3	42
Counselors			1.3		1.5	2.0	-2.3	68.3	64.6	22.0	10.1	7.5	17.3	75
Social Workers		1.3	1.3	1.4	1.6	2.0	6.5	78.0	61.4	23.8	11.2	7.1	17.1	75
Miscellaneous Community and Social Service Specialists		1.2	1.4		1.7	2.0	21.9	65.3	58.7	23.8	13.8	14.0	32.5	53
Clergy			1.4		1.6	1.8	10.4	14.2	79.9	9.1	5.8	8.2	14.7	77
Directors, Religious Activities and Education, and Religious Norkers, all other					1.5		22.8	53.7	79.5	6.1	8.7	11.0	22.3	66
Lawyers and Judges, Magistrates, and other Judicial Morkers						4.0	19.7	33.2	86.4	5.2	4.4	.8	1.3	98
Paralegals and Legal Assistants		1.7	1.7	1.7	2.0		10.2	88.1	74.5	9.4	12.0	13.5	47.3	39
Miscellaneous Legal Support, Workers		1.5	1.6		2.2		32.7	71.9	73.1	11.2	10.7	19.1	41.0	39
Postsecondary Teachers					1.8	2.5	17.9	45.3	78.0	6.4	5.1	1.2	4.8	94
Preschool and Kindergarten Teachers		.7	.8	.9	1.3	1.9	57.9	98.0	63.4	20.2	12.7	15.9	40.3	43
			1,1	1.3	1.8	2.2	9.9	77.6	80.7	9.5	7.4	1.4	3.6	94
lementary and Middle School Teachers					1.8	2.2	8.4	56.6	81.1	8.9	7.3	1.0	3.3	95

				ngs by De of dollars)	egree					Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations								
less-pation	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American•	Percent Latino*	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Gradual				
Special Education Teachers			,		1.8	2.1	6.7	84.2	79.6	11.8	6.4	3.5	7.6	89.0				
Other Teachers and Instructors		1.2	1.6	1.8	1.7	2.1	36.6	54.5	74.6	13.2	8.0	14.1	31.2	54.7				
Archivists, Curators, and Museum Technicians, Librarians					1.6	2.1	8.5	76.4	84.9	7.7	4.2	3.9	11.5	84.7				
Library Technicians, and Other Education, Training, and Library Workers						2.3	8.7	72.3	73.5	12.8	8.7	10.0	18.3	71.7				
Teacher Assistants		.7	.8	.8	.9		34.1	90.3	58.6	20.4	17.3	32.6	48.7	18.7				
Artists and Related Workers					1.6		44.2	35.0	82.7	2.8	8.3	13.5	30.0	56.5				
Designers		1.4	1.7	1.8	1.9	2.3	36.2	45.6	78.9	3.8	9.2	13.4	33.3	53.3				
Producers and Directors and Broadcast and Sound Engineering Technicians and Radio Operators, and Media and all other Communication Equipment Workers, Television, Video, and Motion Picture Camera Communication Editors			2.1		2.4		9	25.2	77.6	8.6	10.0	11.8	30.1	58.1				
Athletes, Coaches, Umpires and Related Workers					1.9		15.8	20.9	77.6	11.8	6.7	8.4	25.0	66.6				
Announcers, and News Analysts, Reporters and Correspondents					2.2		15.B	35.2	79.6	6.0	10.6	9.0	20.2	70.8				
Public Relations/Specialists					2.5		29.3	60.4	82.6	7.2	6.7	4.3	15.2	80.5				
Editors					2.3	2.2	13.7	52.5	85.0	5.0	5.5	4.3	14.8	80.9				
Technical Writers					2.6		8.4	55.1	85.4	7.0	3.6	6.7	19.6	73.7				
Writers and Authors					2.0	2.0	-3.7	51.0	85.8	5.9	3.6	2.9	10.5	86.6				
Photographers and Miscellaneous Media and Communication Workers				4	1.3		19.1	44.2	69.6	5.4	17.4	16.9	35.3	47.7				
Chiropractors, Optometrists, Podiatrists, Veterinarians						2.7	11.2	32.0	88.7	1.7	3.7	1.0	1.2	97.7				
Dentists						4.0	18.2	22.4	74.9	3.4	6.1	.6	.9	98.5				
Pharmacists					4.0	4.4	7.6	49.0	71.8	6.5	3.6	.8	1.9	97.3				
Physicians and Surgeons						6.0	36.3	31.9	69.9	5.4	6.1	.6	1.1	98.2				
Physician Assistants						3.5	29.3	61.6	74.1	11.0	8.6	6.7	18.2	75.1				
Registered Nurses			2.1	2.3	2.5	3.0	13.2	89.1	74.1	11.3	4.9	1.6	43.0	55.4				
Audiologists, Radiation Therapists, Recreational Therapists, Respiratory Therapists, Speech-Language Pathologists, Therapists, all other				2.1	2.1	2.2	10.9	75.4	79.2	10.1	7.0	2.9	29.2	67.8				
Occupational Therapists, and Physical Therapists		1.		1.	2.7	2.8	13.1	69.6	79.4	5.6	4.6	1.5	8.6	89.9				

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			ne Earni n millions	ngs by De of dollars)	egree			Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations							
(Constin	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduate	
Health Diagnosing and Treating Practitioner Support Technicians, Health Diagnosing and Treating Practitioners, all other		1.2	1.3	1.4	1.3		20.0	79.0	66.5	15.3	10.9	28.3	53.2	18.5	
Clinical Laboratory Technologists and Technicians			1.4	1.7	2.1		11.9	72.6	62.4	16.8	8.0	12.8	36.8	50.5	
Dental Hygienists, and Other Healthcare Practitioners and Technical Occupations				2.1	2.2		15.3	66.1	79.8	8.8	7.4	9.0	43.6	47.4	
Diagnostic Related Technologists and Technicians			2.0	2.2	2.4		14.7	66.6	76.2	8.8	8.7	9.8	66.9	23.3	
Emergency Medical Technicians and Paramedics			1.7	1.8			27.0	27.6	83.1	6.0	8.8	15.1	69.8	15.1	
Licensed Practical and Licensed Vocational Nurses		1.4	1.5	1.5			11.0	92.0	63.1	25.4	7.0	20.9	73.4	5.7	
Miscellaneous Health Technologists and Technicians			1.3				43.2	64.9	60.2	21.4	10.2	24.4	50.4	25.3	
Nursing, Psychiatric, and Home Health Aides	.9	1.0	1.0	1.1	1.2		22.7	87.1	44.4	36.9	12.6	54.2	37.9	7.9	
Occupational Therapist Assistants and Aides, Physical Therapist Assistants and Aides				1.7			7.4	78.1	74.4	11.3	10.4	11.4	70.6	18.0	
Dental Assistants		1.2	1.2				19.4	95.9	65.0	7.7	20.7	34.9	55.0	10.1	
Medical Assistants and Other Healthcare Support Occupations, except Dental Assistants		1.1	1.2	1.2	1.3		14.9	89.4	60.0	17.2	17.6	32.0	56.9	11.1	
First-line Supervisors/Managers of Police and Detectives			2.5		3.0		28.1	14.9	78.2	12.1	7.8	13.6	47.7	38.7	
Fire Fighters. Fire Inspectors		2.1	2.4	2.6	2.7		9.1	3.6	81.2	8.5	8.2	18.7	62.2	19.1	
Bailiffs, Correctional Officers, and Jailers		1.6	1.7	1.8	1.9		26.5	28.5	63.1	23.4	11.4	34.0	53.2	12.8	
Detectives and Criminal Investigators			2.5		2.9		26.9	22.8	72.8	12.7	11.4	9.1	39.3	51.6	
Police Officers		1.9	2.2	2.4	2.7	3.1	12.5	13.9	72.0	12.7	12.5	13.5	53.0	33.4	
Security Guards and Gaming Surveillance Officers	.9	1.1	1.3	1.3	1.6		9.4	23.5	50.8	29.7	14.3	42.2	43.7	14.1	
Chefs and Head Cooks	.9	1.2	1.3	1.6			24.2	16.0	48.9	12.3	20.2	49.3	38.3	12.4	
First-line Supervisors/Managers of Food Preparation and Serving Workers	.9	1.0	1.1		1.5		37.2	54.1	60.1	15.8	18.7	51.7	34.5	13.7	
Cooks	.8	.8	.8	.9	.9		26.9	39.6	34.2	16.2	41.5	76.0	19.2	4.9	
Food Preparation Workers	.7	.8	.8				17.9	55.8	33.4	14.4	39.9	74.7	19.2	6.2	
Bartenders		.9	1.0				25.3	50.1	78.1	5.4	13.1	38.8	45.0	16.2	
Combined Food Preparation and Serving Workers, including Fast Food		.8					12.1	73.1	58.6	14.8	19.8	70.5	23.4	6.1	
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop, Waiters and Waitresses	.7	.8	.9		1.0		37.8	66.0	59.4	7.1	23.4	53.0	32.2	14.8	

			ne Earni n millions	ngs by De	egree			Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations									
Occupation	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White*	Percent African American	Percent Latino*	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduat			
Food Servers, Non-restaurant		.9					31.1	67.4	40.7	25.4	23.5	63.3	29.7	7.0			
First-line Supervisors/Managers of Housekeeping and Janitorial Workers	1.1	1.2	1.4				50.8	35.2	57.7	16.8	22.1	56.9	32.5	10.7			
First-Line Supervisors/Managers of Landscaping, Lawn Service, and Groundskeeping Workers		1.1	1.3				39.5	5.2	72.9	4.2	21.0	48.5	32.4	19.1			
Janitors and Building Cleaners	.9	1.0	1.2	1.2	1.0		40.0	25.5	48.6	17.4	29.5	71.4	23.6	5.0			
Maids and Housekeeping Cleaners	.7	.7	.7				33.7	85.4	29.8	19.3	44.0	80.4	15.6	4.0			
Pest Control Workers, Grounds Maintenance Workers	.8	1.0	1.0	1.2	1.1		1.9	4.7	42.9	7.5	47.5	74.1	19.5	6.3			
First-line Supervisors/Managers of Personal Service Workers		.8	1.1				69.1	59.8	68.2	8.3	11.1	37.5	37.9	24.6			
Animal Trainers, Non-farm Animal Caretakers		.0					15.9	62.7	83.0	3.9	11.2	46.2	33.3	20.5			
Gaming Services Workers, Motion Picture Projectionists. Ushers, Lobby Attendants, and Ticket Takers, Miscella- neous Entertainment Attendants and Related Workers		1.3	1.4				13.3	44.5	55.6	11.7	11.8	41.2	41.4	17.5			
Barbers, Hairdressers, Hairstylists, and Cosmetologists		.6					-5.7	78.5	63.3	15.0	15.0	54.8	38.7	6.5			
Miscellaneous Personal Appearance Workers	.6	.7	1.				2.9	82.1	27.4	2.3	9.5	62.9	27.8	9.3			
Baggage Porters, Bellhops, and Concierges, Transportation Attendants			1.4				-3.2	46.4	54.4	20.3	17.9	35.7	38.5	25.8			
Tour and Travel Guides, Recreation and Fitness Workers		1.0	1.1		1.4		21.2	58.2	73.5	12.3	9.5	23.6	36.5	39.9			
Child Care Workers		.4	.3	.3	.6		193.7	95.6	54.5	19.5	21.4	47.7	38.2	14.0			
Personal and Home Care Aides	.7	.8	.8	.9	.9		16.1	85.4	46.7	26.7	17.9	55.0	34.5	10.5			
First-line Supervisors/Managers of Retail Sales Workers	1.1	1.3	1.5	1.5	1.8	2.0	41.0	41.3	75.4	7.7	10.8	37.4	38.3	24.3			
First-line Supervisors/Managers of Non-retail Sales Workers	1.3	1.7	2.0	2.0	2.9	3.4	17.5	28.5	78.0	6.2	10.1	27.2	32.7	40.1			
Cashiers	.7	.8	.9	.9	1.1		32.5	71.8	53.5	15.9	19.7	59.5	29.4	11.2			
Parts and Salespersons		1.3					4.1	11.0	80.5	4.9	12.6	58.2	34.9	6.9			
Retail Salespersons	.9	1.1	1.3	1.3	1.8	1.9	49.3	39.0	73.4	9.5	12.1	36.8	37.9	25.3			
Advertising Sales Agents			1.8		2.6		15.8	50.5	82.3	6.6	8.4	13.7	31.1	55.2			
Insurance Sales Agents		1.5	1.6	1.6	2.2	2.4	35.2	45.4	81.7	6.8	8.1	17.2	36.6	46.2			
Securities, Commodities, and Financial Services Sales Agents			1.9		3.4	4.4	53.7	29.0	82.0	5.6	6.7	8.4	22.0	69.7			
Sales Representatives, Services, all other		1.8	2.0	2.0	2.9	3.7	27.3	31.4	82.7	6.3	7.8	17.6	34.1	48.3			
Sales Representatives, Wholesale and Manufacturing	1.4	1.8	2.0	2.1	3.1	3.6	21.2	24.2	85.5	3.3	7.8	19.6	31.9	48.5			

			ne Earni n millions	ngs by De	egree			Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations									
Occupation	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White*	Percent African American•	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduate			
Models, Demonstrators, and Product Promoters. Sales Engineers, and Sales and Related Workers, all other		1.3	1.7		2.6	3.1	42.6	48.1	83.9	4.9	7.1	15.2	25.6	59.3			
Real Estate Brokers and Sales Agents		1.0	1.1	1.2	1.5	1.5	37.7	49.0	80.8	5.4	8.9	15.1	37.3	47.5			
First-line Supervisors Managers of Office and Administrative Support Workers	1.4	1.5	1.7	1.7	2.2	2.8	29.8	64.3	73.6	11.1	10.9	26.8	43.3	30.0			
Bill and Account Collectors		1.3	1.3				11.1	71.2	62.0	20.1	15.1	36.1	49.5	14.4			
Billing and Posting Clerks and Machine Operators		1.2	1.3	1.3	1.4		22.9	90.1	71.2	12.3	11.5	36.1	49.8	14.1			
Bookkeeping. Accounting and Auditing Clerks		1.3	1.4	1.3	1.5		19.1	88.9	75.8	9.1	9.8	34.9	52.3	12.9			
Gaming Cage Workers. Procurement Clerks, Payroll and Timekeeping Clerks		1.4	1.5				20.7	85.8	71.9	12.4	10.1	32.9	51.0	16.1			
Tellers		1.0	1.0				23.0	91.0	70.0	11.8	12.4	41.0	44.4	14.6			
Brokerage Clerks, Customer Service Representatives, New Account Clerks	1.0	1.2	1.3	1.4	1.6	1.9	25.2	68.7	65.3	17.1	13.1	31.8	45.3	22.9			
Court, Municipal and License Clerks			1.4				20.2	80.4	67.4	14.4	13.3	30.2	50.5	19.3			
File Clerks		1.2	1.3		1.4		14.5	80.9	62.9	18.3	12.6	34.9	46.5	18.6			
Loan Interviewers and Clerks			1.5			-	14.3	82.3	72.7	10.6	11.6	29.5	48.4	22.1			
Correspondence Clerks and Order Clerks		1.2	1.3		,		11.3	60.9	68.6	11.7	14.5	45.6	38.0	16.4			
Receptionists and Information Clerks		1.0	1.1	1.1	1.2		19.1	91.5	66.7	13.7	16.0	41.6	46.7	11.7			
Reservation and Transportation Ticket Agents and Travel Clerks			1.5				28.5	59.5	61.7	17.0	12.9	28.5	43.8	27.7			
Information and Record Clerks, all other			1.3				18.8	86.8	68.4	15.0	11.0	26.1	56.5	17.4			
Cargo and Freight Agents Couriers and Messengers		1.4	1.6				31.6	14.1	63.6	14.6	17.1	45.9	42.0	12.2			
Dispatchers Meter Readers, Utilities		1.4	1.5	1.6			20.7	51.5	72.8	14.1	10.9	42.0	47.0	11.0			
Postal Service Clerks		2.0	2.0				6.9	48.7	52.3	26.9	9.1	36.5	47.8	15.7			
Postal Service Mail Carriers		2.0	2.0	2.0	2.0		7.0	34.5	67.3	15.7	9.5	35.8	49.4	14.9			
Production, Planning and Expediting Clerks		1.5	1.7	1.8	2.2		38.7	55.5	76.4	10.3	9.1	28.4	41.6	30.1			
Shipping, Receiving, and Traffic Clerks	1.1	1.2	1.2				19.0	29.8	61.0	13.9	20.9	62.2	30.3	7.5			
Stock Clerks and Order Fillers	.9	1.1	1.2	1.2	1.3		19.2	39.4	58.3	16.6	19.9	59.9	31.8	8.4			
Secretaries and Administrative Assistants	1.1	1.3	1.3	1.4	1.5	1.6	24.3	96.3	76.5	10.5	9.8	33.2	50.3	16.6			
Computer Operators and Statistical Assistants		1.4	1.6				31.8	51.2	68.9	14.1	9.8	26.9	47.4	25.7			
Data Entry Keyers		1.2	1.2	1.3	1.3		28.9	81.1	63.5	17.7	12.6	37.9	47.3	14.9			

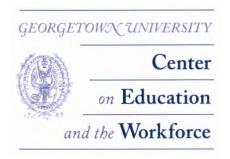
			ne Earni n millions	ngs by De	egree					itions of F tional Atta				
0	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduat
Word Processors and Typists		1.2	1.3	1.2	1.4		18.3	90.0	67.3	16.4	10.5	36.3	48.2	15.5
Insurance Claims and Policy Processing Clerks		1.3	1.3	1.4	1.6		18.1	83.5	69.7	17.0	10.3	31.0	46.9	22.2
Mail Clerks and Mail Machine Operators, lexcept Postal Service and Office Machine Operators, except Computer	1.	1.1					19.1	51.2	54.0	22.4	15.6	53.1	36.9	10.1
Proofreaders and Copy Markers, Office Clerks, General		1.2	1.3	1.3	1.5		21.7	84.1	63.8	15.7	14.4	35.7	46.8	17.4
Miscellaneous Office and Administrative Support Workers, including Desktop Publishers		1.3	1.5	1.5	1.7	2.2	33.3	74.6	68.7	15.5	10.6	25.9	43.4	30.6
Graders and Sorters, Agricultural Products, Miscellaneous Agricultural Workers, Including Animal Breeders	.8	1.0	1.0				29.0	17.4	35.9	4.3	57.9	81.9	13.6	4.5
Fishing and Hunting, Forest and Conservation, Logging Workers		.9					-27.6	3.3	79.0	7.8	10.3	77.0	16.0	7.1
First-line Supervisors/Managers of Construction Trades and Extraction Workers	1.7	2.0	2.2	2.2	2.3		24.8	2.5	79.9	4.1	14.1	56.5	33.1	10.5
Structural Iron and Steel Workers, Reinforcing Iron and Rebar Workers including Boilermakers		1.8					43.7	1.6	70.4	7.6	19.4	68.2	28.7	3.0
Brick Masons, Block Masons, and Stonemasons		1.4					-26.9	1.2	52.7	7.1	39.1	77.8	18.3	3.9
Carpenters .	1.1	1.3	1.2	1.2	1.1		.8	1.2	65.1	4.7	27.5	67.2	25.9	6.9
Carpet, Floor, and Tile Installers and Finishers		1.1					10.1	2.1	54.6	3.4	39.8	75.6	18.9	5.5
Construction Laborers	1.0	1.2	1.3	1.3	1.3		9.5	2.4	48.7	7.7	41.0	74.7	19.7	5.5
Construction Equipment Operators, Except Paving, Surfacing and Tamping Equipment Operators	1.4	1.6	1.8				-2.0	1.8	77.7	5.9	14.2	75.1	22.0	2.9
Drywall Installers, Ceiling Tile Installers, and Tapers, Plasterers and Stucco Masons	1.0	1.1					54.7	1.9	35.6	4.4	57.7	84.1	13.2	2.7
Electricians	1.4	1.8	2.0	2.1	1.8		5.8	1.8	75.7	6.2	15.2	46.7	46.2	7.0
Glaziers, Insulation Workers, Paperhangers		1.4					64.1	3.1	65.5	7.0	25.3	70.9	24.2	5.0
Painters, Construction and Maintenance	.9	1.1	1.0		-		67.3	4.8	48.9	6.1	42.9	73.8	19.8	6.4
Pipelayers, Plumbers, Pipelitters, and Steamlitters	1.3	1.7	1.9	2.0			25.9	1.0	71.9	6.4	19.9	63.1	32.6	4.3
Roofers	1.0	1.2					130.6	.9	43.3	5.3	49.2	84.7	11.7	3.6
Sheet Metal Workers		1.7					19.6	3.1	77.5	5.8	14.0	65.4	31.5	3.2
Miscellaneous Construction		1.5		-			10.7	5.7	62.4	9.1	26.0	67.0	27.0	6.0
Construction and Building Inspectors			1.9	-			12.0	11.5	76.9	7.3	11.5	27.7	47.1	25.2
Highway Maintenance Workers		1.3					6.9	3.3	76.1	10.0	12.2	69.0	28.3	2.7
Ext-Mining Machine Operators		2.1					17.0	3.1	82.9	5.1	10.7	69.2	27.1	3.8

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			n millions	ngs by De of dollars)	egree			Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations								
District in the second of the	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American•	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduate		
Bakers		1.0					23.4	49.0	44.5	10.9	37.6	70.2	22.6	7.2		
Butchers and other Meat. Poultry, and Fish Processing Workers	.9	1.2					39.8	21.3	44.0	10.4	40.7	78.7	18.7	2.6		
Aircraft Structure, Computer Control Programmers/Operators, Extruding/Drawing, Forging, Rolling Machine Setters, Opera- tors and Tenders, Metal and Plastic		1.5					32.1	10.8	77.6	7.4	10.7	58.3	35.9	5.7		
Cutting, Punching, and Press Machine Setters, Operators. and Tenders, Metal and Plastic		1.2					38.4	21.2	71.6	10.4	14.8	72.1	24.1	3.8		
Machinists	1.4	1.7	1.8	1.8			39.6	3.8	76.6	5.7	12.1	58.9	37.6	3.5		
Metal Workers including Kith Model Makers, Molders and other Machine Setters	1.3	1.5	1.7	1.8			44.7	6.2	69.5	8.5	18.6	69.3	27.9	2.9		
Miscellaneous Metal Workers and Plastic Workers. including Milling and Planning, and Multiple Machine Tool Setters and Lay-oul Workers	1.1	1.3	1.4				37.4	23.0	54.8	12.7	24.4	71.1	24.4	4.5		
Bookbinders and Bindery Workers, Job Printers, Prepress Technicians and Workers		1.3					40.1	34.2	72.7	9.8	12.3	56.0	32.1	11.9		
Printing Machine Operators		1.4	1.5				50.2	15.0	72.6	9.1	14.5	63.5	30.2	6.3		
Laundry and Dry-cleaning Workers	.7	.8					25.3	60.2	37.1	15.9	35.2	78.7	14.6	6.7		
Textile. Apparel and Furnishings Workers	.8	.9					29.4	53.5	47.2	12.3	28.0	74.9	17.3	7.7		
Sewing Machine Operators	.7	.8					17.5	73.4	33.1	11.0	42.1	82.9	13.2	3.9		
Miscellaneous Woodworkers, including Model Makers and Pattern Makers		1.1					26.3	11.9	69.9	5.8	20.3	73.8	19.9	6.3		
Power Plant, Water and Liquid Waste Treatment, Miscella- neous Plant and System Operators		1.9	2.2				21.3	4.9	79.7	8.7	9.2	42.2	45.7	12.0		
Stationary Engineers and Boiler Operators		2.0	2.0				25.4	2.9	70.9	13.6	11.2	45.2	44.7	10.1		
Chemical Processing Machine, Extruding, Forming, Press- ing and Compacting, Furnace, Kilh, Oven, Drier, and Kettle Operators and Tenders		1.7					42.9	13.7	70.4	13.3	13.0	55.3	35.1	9.6		
Crushing, Grinding, Polishing, Mixing, and Blending Workers		1.4					28.2	10.5	62.6	12.9	20.8	66.4	28.1	5.5		
nspectors, Testers, Sorters, Samplers, and Weighers	1.0	1.4	1.7	1.8	2.0		54.1	38.0	66.9	11.3	14.7	48.0	37.3	14.8		
Other Production Workers, including Semiconductor Processors and Cooling and Freezing Equipment Operators	1.0	1.3	1.5	1.6	1.6		38.6	28.7	56.2	14.2	23.5	68.1	25.7	6.1		
Packaging and Filling Machine Operators and Tenders	.8	1.1					33.8	56.7	37.0	17.1	40.4	77.8	18.0	4.3		
Painting Workers	1,1	1.4					46.6	12.7	57.6	9.9	29.6	75.1	21.7	3.2		
Supervisors, Transportation and Material Moving Workers		1.8	1.9		2.3		30.8	18.7	69.7	12.5	13.4	43.4	38.9	17.6		

	Lifetime Earnings by Degree (in millions of dollars)												Distributions of Race/Ethnicity, Gender, and Educational Attainment within Occupations									
0 = y	Less than High School	High School Diploma	Some college	Associate's	Bachelor's	Master's/ Profes- sional/ Doctoral	Gender Earnings Gap %	Percent Female	Percent White•	Percent African American	Percent Latino•	Percent High School or less	Percent Some Col- lege and Associate's	Percent BA and Graduat								
Aircraft Pilots and Flight Engineers Air Traffic Controllers and Airfield Operations Specialists					3.9		24.0	8.5	88.7	4.3	4.4	7.7	29.4	62.9								
Ambulance Drivers and Attendants, Taxi Drivers and Chauffeurs, Motor Vehicle Operators, all other	.8	.9	.9				10.2	12.8	39.5	28.6	20.7	55.1	31.4	13.5								
Bus Drivers		1.2	1.3				39.4	41.2	45.2	35.3	15.4	54.2	38.7	7.1								
Driver/Sales Workers and Truck Drivers	1.3	1.5	1.6	1.5	1.5		42.2	3.8	64.9	14.0	18.4	68.5	26.8	4.8								
Locomotive Engineers, Railroad Brake, Signal and Switch Operators, Reilroad Conductors and Yardmasters, Subway, Streetcar, (and other Rail Transportation Workers		2.4	2.5				22.6	6.8	71.8	18.4	7.5	44.2	44.5	11.3								
Parking Lot, Service Station Attendants		.9					20.9	15.4	48.0	17.6	26.2	65.8	24.8	9.5								
Conveyor Operators/Tenders, Hoist/Winch Operators, Miscellaneous Material Moving/Transportation Workers. Inspectors		1.6	1.8				41.3	13.7	67.4	14.1	14.6	49.8	41.2	9.1								
Crane and Tower Dredge, Excavating, and Loading Machine, Pumping Station Operators		1.9					26.5	2.7	77.5	8.6	12.0	71.7	24.7	3.7								
Industrial Truck and Tractor Operators	1.1	1.2	1.3				6.1	8.7	49.2	21.1	27.4	76.8	20.7	2.6								
Cleaners of Vehicles and Equipment	.9	1.0					7.9	13.3	36.2	18.9	41.9	79.1	17.4	3.5								
Laborers and Freight, Stock, and Material Movers, Hand, Machine Feeders and Offbearers	1.0	1.2	1.3	1.4	1.3		27.6	18.2	59.6	15.2	21.6	70.6	24.5	5.0								
Packers and Packagers, Hand	.8	.9					25.5	60.2	34.1	12.5	46.2	80.5	15.6	4.0								





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