



# The Economic and Societal Impacts of The University of Florida College of Dentistry

**Tripp  
Umbach**

**MAY 2021**

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# ANNUAL IMPACTS



**\$223.4M**

in economic impact  
in the state of Florida



**2,065**

jobs supported  
and sustained in the  
state of Florida



**\$9.3M**

in government  
revenue impact



**\$56.3M**

in impact of alumni who  
remain in the state to  
practice after graduation



**\$2.5M**

in free or reduced cost dental  
care provided to people who  
cannot afford dental care



**\$2.3M**

in charitable donations  
and volunteerism from  
students, faculty and staff



**\$168.6M**

in annual healthcare cost  
savings to the communities  
receiving reduced cost care

# EXECUTIVE REPORT

The University of Florida College of Dentistry opened its doors in 1972 with the first doctor of dental medicine degree program offered to a class of 24 students. **The College of Dentistry**, or **UFCD**, is the only publicly funded dental school in the state and ranks as a national leader in dental education, research, patient care, and community service. UFCD is primarily housed in the Dental Sciences Building located on the UF Academic Health Center campus in Gainesville.

UFCD serves an integral role in educating the dental workforce in Florida. The college's educational mission, clinical care, and research are aimed at improving the health of all Floridians, the nation, and the world. The college offers DMD and DMD/PhD programs; advanced and graduate education in a wide range of dental specialties, including one for internationally educated dentists; and other special study programs. UFCD also offers more than 50 continuing education courses for dentists, hygienists, and dental assistants each year. The education of the current and future dental workforce is vital to the well-being of the communities they serve. Among the College of Dentistry students who began dental school in August 2020, less than 12% were from outside Florida. Ensuring a focus on oral health care in Florida is a main goal of the program.<sup>1</sup>

High-quality and state-of-the-art teaching, clinical care, and research are core tenants of UFCD's approach. The college is one of only a few dental schools in the United States that offers educational programs in all ADA-recognized clinical specialties.

The importance of high-quality dental education and care cannot be overstated with respect to maintaining a healthy community. This report highlights the economic and community benefits that are outcomes of UFCD and its faculty, staff, residents, and students.

## Global Leaders in Dental Education, Research, Patient Care and Service

Excellence through high-quality comprehensive dental care, cutting-edge research, and learner-focused education. We support a culture of dignity, respect, support, and compassion fostered through a diverse and inclusive environment.



Dean A. Isabel Garcia

<sup>1</sup><https://dental.ufl.edu/education>

# PROJECT OVERVIEW

UFCD retained Tripp Umbach to measure the economic, employment, and government revenue impacts of the college's operations in the state of Florida and the communities in which the school operates. Tripp Umbach was also tasked with illustrating community benefits that the school and its faculty, staff, residents, and students generate as a result of their activities within Florida. Impact study goals include:

- To quantify the economic and employment impacts of UFCD in Florida.
- To quantify the economic and employment impacts of UFCD on the county areas where they have clinical operations that are primarily coupled with teaching programs.
- To quantify the government revenue impacts of UFCD.
- To demonstrate and quantify the benefits of a strong clinical, academic, and teaching faculty and UFCD's collaboration with the community, citizens, and the state.

## University of Florida College of Dentistry

### STUDY OVERVIEW

Fiscal Year 2020

### STUDY INCLUDES

The College of Dentistry including the research enterprise and dental centers

### STUDY GEOGRAPHY

State of Florida  
Alachua County  
Collier County  
Nassau County  
Hillsborough & Pinellas County  
Miami-Dade County



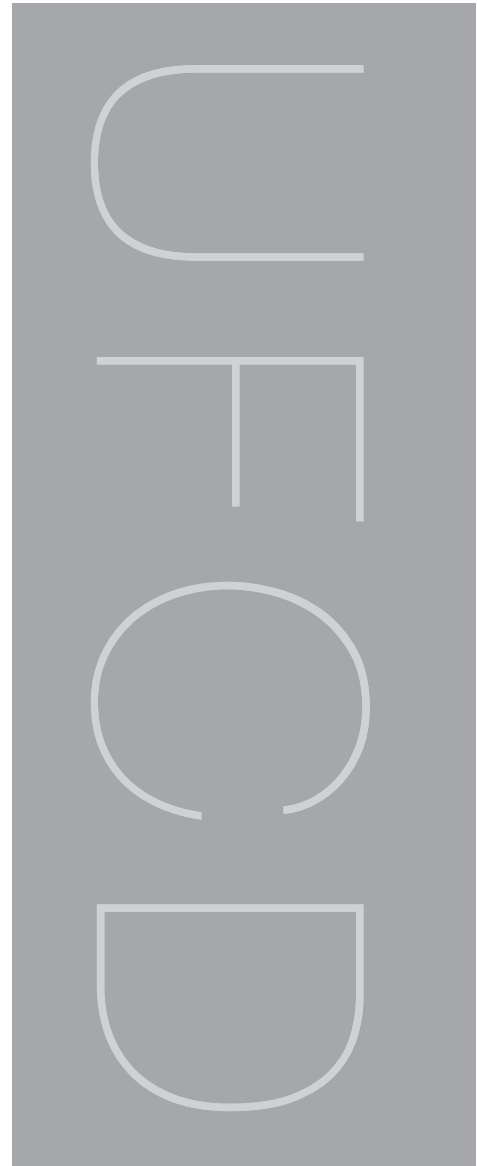
# METHODOLOGY

This economic impact analysis measures the effect of direct and indirect/induced business volume and government revenue impacts for all UFCD operations in Florida. The methodology employed in the calculation of these impacts is IMPLAN, an industry standard modeling software (see Appendix B). Primary data utilized to conduct the analysis was collected from UFCD. Data included capital expenditures, operational expenditures, jobs, payroll and benefits, and taxes, all of which encompass Fiscal Year 2020 (July 1, 2019-June 30, 2020). The approach taken in this study was decidedly conservative and adheres to industry standards for economic impact.

Economic impact begins when an organization spends money. Economic impact studies measure the direct economic impact of an organization's spending, plus additional indirect and induced spending in the economy as a result of direct spending. Economic impact is not a measurement of revenue or dollars collected by institutions.

Total economic impact measures the dollars that are generated within Florida because of UFCD's presence. This includes spending on goods and services with a variety of vendors within Florida, UFCD faculty, staff and visitor spending, and the volume generated by businesses within Florida that benefit from UFCD's spending. It is important to remember that not all dollars spent by a university remain in its home state. Dollars that "leak" out of the state in the form of purchases from out-of-state vendors are not included in the college's economic impact. The multipliers utilized in this study are derived from the data provided by IMPLAN.

Key economic impact findings presented within the summary include the total current (FY20) economic, employment, and state and local government revenue impact of the College of Dentistry's operations.





# CONTRIBUTES TO THE STATEWIDE ECONOMY

UFCD makes a significant contribution to the state's economic success, and college operations directly or indirectly impact many Floridians every day – either through operational spending, research, or delivery of oral health care. The college affects business volume in Florida in two ways:

1. Direct expenditures for goods and services by the college and its employees, residents, students, and visitors. This spending supports local businesses that, in turn, employ local individuals to sell the goods and provide the services that UFCD constituencies need.
2. Indirect and induced spending within Florida. The businesses and individuals that receive direct payments re-spend this money within the state, thus creating the need for even more jobs.

The overall economic impact of all college operations on Florida in FY20 was **\$223.4 million** (\$81.1 million direct impact and \$142.3 million indirect/induced) (see Figure 1). College of Dentistry Annual Economic Impact (FTEs)

# SUSTAINS AND SUPPORTS JOBS

The College of Dentistry supported **2,065 jobs** in Florida. These jobs include not only direct employment by the college but also indirect and induced jobs created for supply and equipment vendors, contractors, and laborers for the construction and renovation of UFCD facilities. Jobs were also created in the community at hotels, restaurants, and retail stores in support of the college's workforce and visitors (see Figure 2).

## COLLEGE OF DENTISTRY ANNUAL ECONOMIC IMPACT (FTEs)



Figure 1

Source: Data supplied by the University of Florida College of Dentistry for Analysis by Tripp Umbach

## COLLEGE OF DENTISTRY ANNUAL ECONOMIC IMPACT (FTEs)

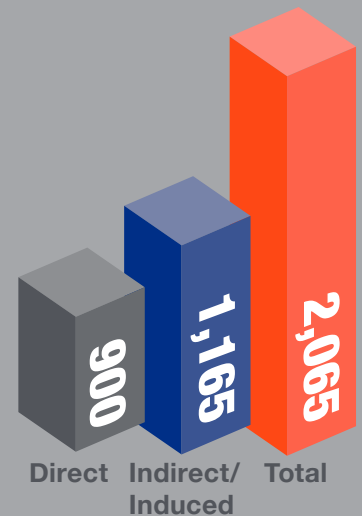


Figure 2

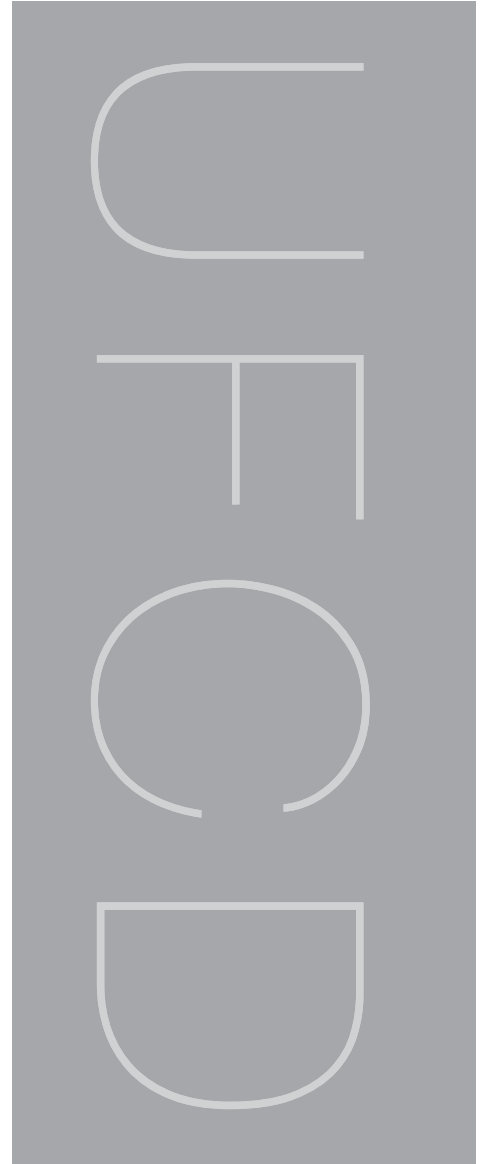
Source: Data supplied by the University of Florida College of Dentistry for Analysis by Tripp Umbach

# GENERATES TAX REVENUE

A common misperception is that colleges and nonprofits do not generate tax revenue. State and local government revenues attributable to the presence of the College of Dentistry totaled **\$9.3 million** in FY20. Through its local spending, as well as direct and indirect support of jobs, the presence of the college stabilizes and strengthens the local and state tax base. UFCD is an integral part of the state's economy, generating revenue, jobs, and spending.

# PROVIDES PATIENT CARE

The College of Dentistry provides care to patients in UF-owned dental centers in five cities in Florida. College faculty provide care to patients at fees that are comparable to private practice. Additionally, for those patients who are willing to participate in the educational experience of residents and students, UF dental centers offer lower-cost dental care. In DMD and resident dental centers, patients are charged a reduced-fee structure for services performed. As a teaching clinic, all patient care is delivered in an educational setting, under faculty supervision, with the latest technologies in a professional environment. Treatment is provided in all dental specialties. In 2020, 110,819 patient visits were completed at UFCD-owned dental centers with 89% of that care provided at reduced cost. During FY20, an estimated 75% of total patient visits were delivered to those with household incomes at or below 200% of the federal poverty level.





# GENERATES RESEARCH IMPACT

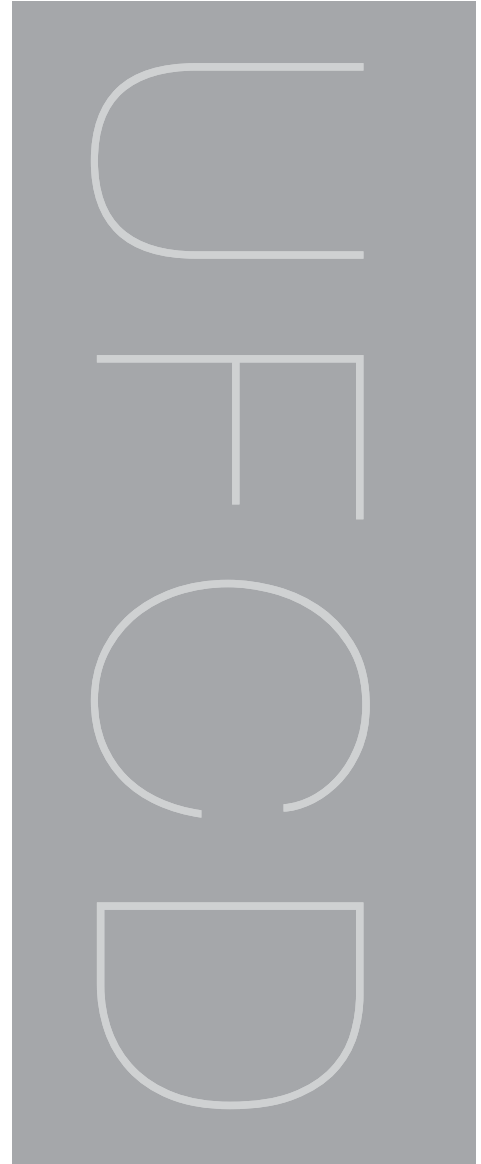
UFCD has a robust, active research enterprise with respected, experienced faculty whose projects attract funding from the public and private sector with the goal of improving health and quality of life for Florida residents, as well as people throughout the United States and the world. Based upon \$15.5 million in research dollars received in 2020, the economic impact of research conducted with those dollars can lead to commercialization, product development, and entire product ecosystems. The monetary ripple effects of that research spending surpassed \$20 million, generating upward of \$36.6 million in total research economic impact. The process for securing extramural research funding is very competitive. UFCD's success in this arena is a result of the expertise, collaboration, and the diverse background of our strong faculty base.

UFCD's research enterprise provides economic value, and it also supports jobs and attracts intellectual capital to the Sunshine State. In FY20, UFCD research supported 108 direct jobs and an additional 156 indirect and induced jobs for a total of 264 jobs. UFCD has ranked in the top 10 dental institutions in the country (Blue Ridge Institute) for the past 15 years based on National Institutes of Health awards, with an average of \$15 million in sponsored extramural funding per year including funding from other sources (e.g., Health Resources and Services Administration, National Science Foundation, industry support).

UFCD has a comprehensive research portfolio and invests in initiatives that promote further research. In the past 10 years, the UFCD Office of Research invested \$4.3 million in internal funds and yielded more than \$42 million in external funding.

Examples of College of Dentistry research efforts include:

- Studies focusing on oral health's major role in determining overall health and well-being and how to foster good oral health care among individuals or groups at risk for oral diseases and disorders.
- Investigations of how chronic oral diseases and disorders are linked to the progression of other chronic diseases such as cardiovascular disease, diabetes, inflammatory bowel disease, Parkinson's disease, and HIV/AIDS and the development of new therapies and approaches to manage chronic inflammatory conditions such as those seen in periodontal disease.



- A wide variety of research in collaboration with other programs at UF, in the United States and across the globe, fueling advanced discoveries through collaboration and technology.
- Population and public health research on the delivery and effectiveness of oral health services to adults and children living in Florida.
- COVID-19-related projects in response to critical research questions raised by the pandemic, including the use of saliva as a valid substrate to detect and quantify SARS-CoV-2.

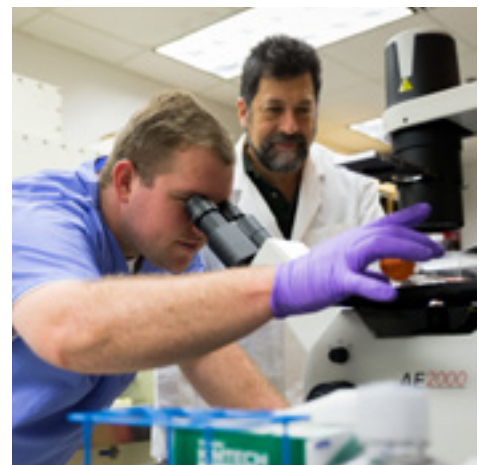
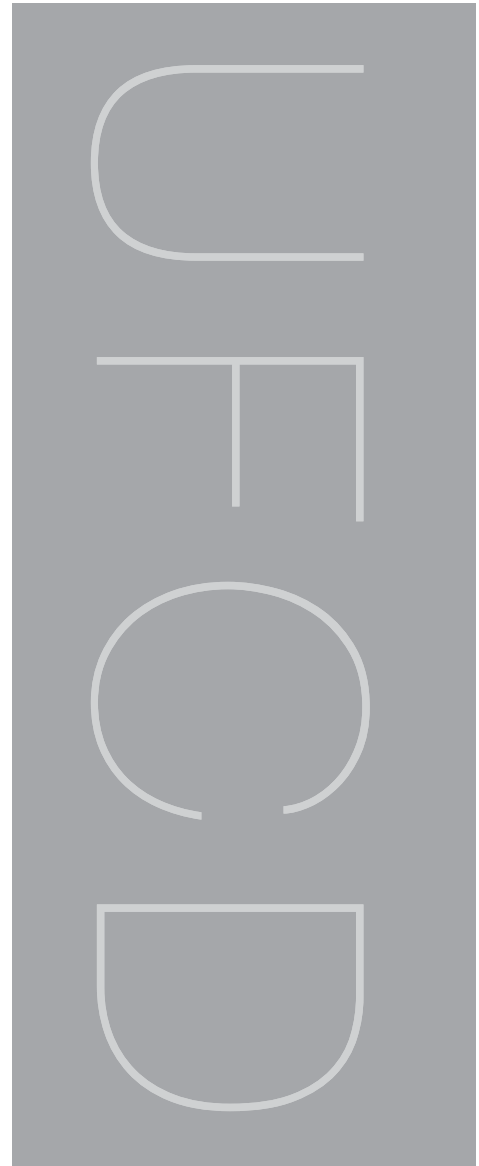
**Besides the research conducted in individual departments, UFCD research is boosted by the support of the following:**

Our most research intensive department, the **Department of Oral Biology**, encompasses diverse scientific areas including molecular biology and genetics, microbiology and immunology, virology, genomics, biochemistry, biophysics, craniofacial development, pharmacology, physiology, and cancer biology. Because of the unique combination of tissues and functions of the mouth and face, the field of oral biology uniquely blends scientific disciplines to develop new and effective ways to manage, cure, or prevent oral, dental, and craniofacial diseases and disorders. The department also serves as a teaching hub within the UF Academic Health Center for graduate and postgraduate students to learn bacteriology.

**The Pain Research and Intervention Center of Excellence**, or PRICE, is the premier multidisciplinary center for pain research and treatment and education of pain. PRICE serves as the professional home for UF scientists, clinicians, and trainees dedicated to improving the understanding and management of pain for patients nationwide.

UFCD is one of six nodes in the **National Dental Practice-Based Research Network** that encompasses clinicians and patients across all 50 states to study questions relevant to daily clinical practice. The UFCD node includes practitioners from Florida, Georgia, North Carolina, South Carolina, and Virginia.

**The Dental Clinical Research Unit** at UFCD facilitates clinical research by providing space and resources for dental investigators including faculty, students, and external sponsors.

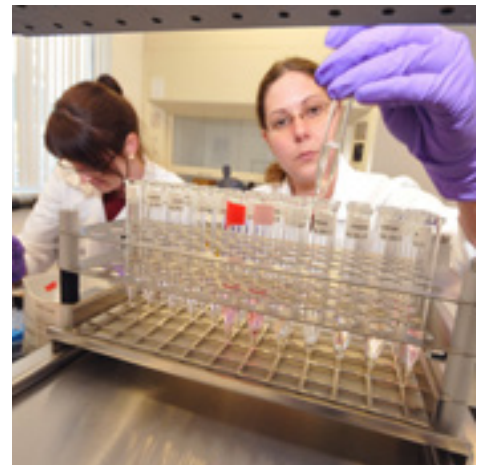
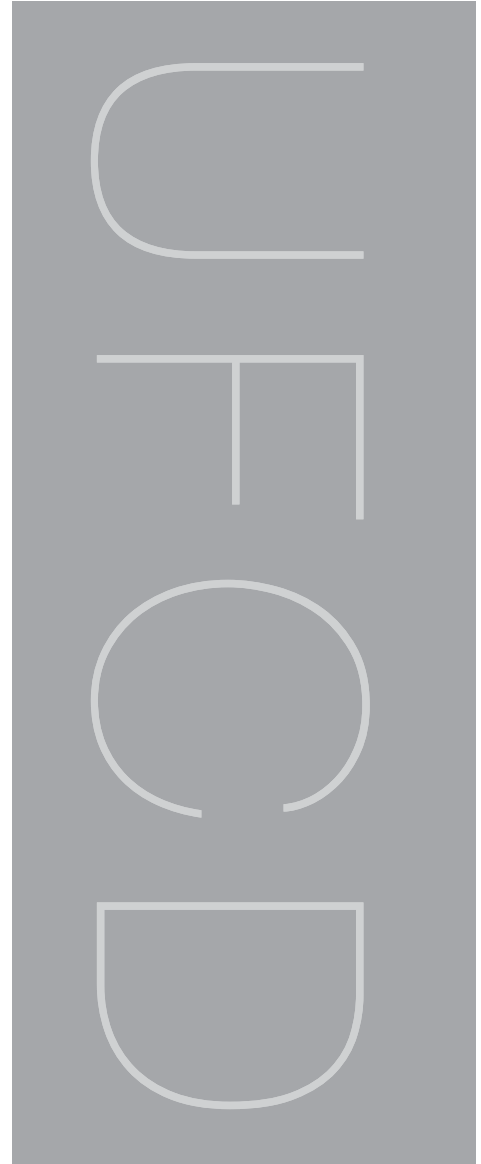


**The Center for Dental Biomaterials** conducts research with an interdisciplinary approach transferring basic and applied science and technology of biomaterials to students, graduate students, faculty, and practicing dentists.

**The Center for Implant Dentistry** coordinates research, educational programs, diagnosis, and treatment for patients who need dental implants. The center also engages an international audience of dental professionals through continuing education and distance education.

**The Center for Molecular Microbiology** brings together UF infectious disease researchers and clinicians from dentistry, medicine, and veterinary medicine to discover the mechanisms of microbial pathogenesis and identify new antimicrobial targets, vaccines, and diagnostics. The center also educates future scientists and clinicians and stimulates the growth of biotechnology companies in Northern Florida.

**The Center for Orphaned Autoimmune Disorders** provides patient care and supports clinical research protocols for oral manifestations of autoimmune diseases such as Sjögren's syndrome, Systemic Lupus Erythematosus, Systemic Sclerosis (scleroderma), and Rheumatoid Arthritis.



# BENEFITING THE STATE BEYOND OPERATIONS

The College of Dentistry's total impact on Florida goes beyond the annual operational impacts detailed in this report. Economic impact studies often only capture what can be assigned an actual number, but the value of the college goes far beyond the annual **\$223.4 million economic impact**. UFCD provides access to expert faculty, expert-level dental care, cutting-edge research, and education of the future dental workforce. The alumni of the school who remain in the area after graduation contribute to the overall economy as well.

## Educating the Existing Workforce

The College of Dentistry offers courses and programs that cover a wide variety of relevant topics for dental-care providers. Programs are available in not only general dentistry but nine specialties, and the college has clinical training in each. A variety of outstanding continuing education programs are available for postgraduate dentists and their entire dental teams. The goal is to provide dental care providers the best available opportunities to continue to grow in their clinical practice and remain current with leading-edge care, new knowledge, and continually advancing technologies.

## Providing a Licensure Path for Internationally Educated Dentists

Through its advanced education for internationally educated dentists, the college offers training and education for graduates of non-accredited dental programs, i.e., educational programs that have not been recognized by the United States or the Commission on Dental Accreditation. This program is offered at a stand-alone, community-based dental center in Hialeah, Florida, where accepted dentists complete a two-year program leading to a certificate of completion in Advanced Education in General Dentistry.

The curriculum is designed to increase the resident's competence and skills in performing advanced aspects of general dentistry as well as greater exposure in several dental specialties. Upon successful completion, residents are eligible to challenge the board examinations required to practice in Florida. Program graduates go on to be essential parts of the dental profession, providing oral health care to Floridians.



# Educating the Future Workforce

The College of Dentistry educates the dental workforce that Florida needs to succeed in the 21st century. The residents and students who graduate every year from UFCD are essential to the state's human capital and workforce needs. UFCD graduates 23.4% of all dentists practicing in the state of Florida; about 50% of UFCD alumni remain in Florida after graduation and contribute to the state's economy and the health of Florida residents. The College of Dentistry ranks ninth among 65 U.S. dental schools in a comparison based on the mean GPA of admitted students, Dental Admissions Test scores, and acceptance rates.

## Alumni Play a Vital Role in the Florida Economy

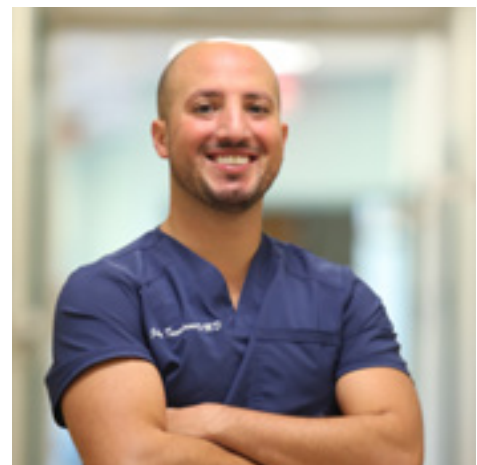
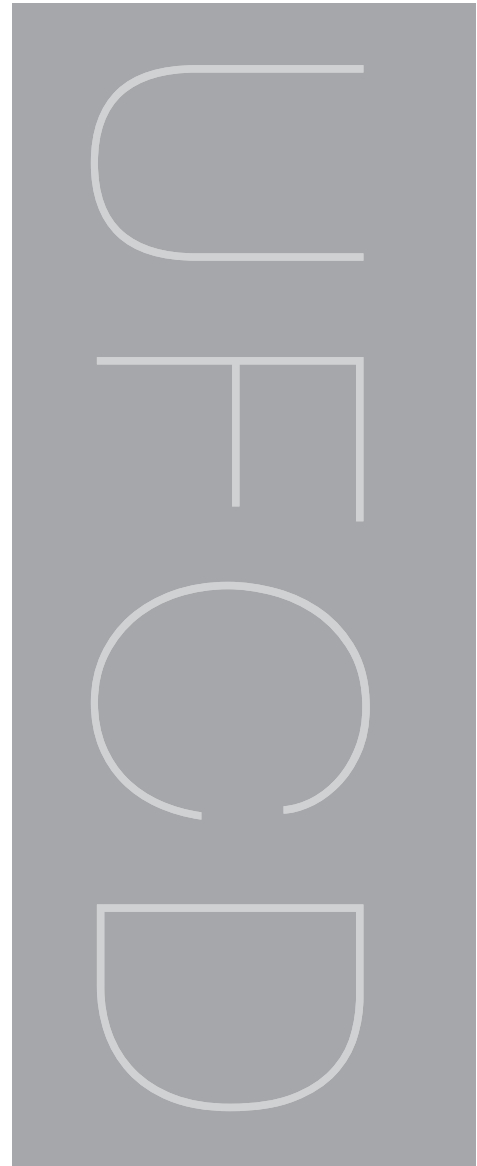
The College of Dentistry alumni contribute significantly to the Florida economy. The college awarded 140 degrees and diplomas in academic year 2020. This amounts to the creation of **\$56.3 million** of future value (counting only the graduates from a single academic year), assuming that 50% of the graduates stay and work in Florida over the course of their careers. Even if the total is adjusted by 15% to allow for periods of unemployment, time out of the labor force for child-rearing, and other life events, the value creation is \$47.9 million over the course of the careers for a single graduating class.



# Committed to the Community

Tripp Umbach estimates that College of Dentistry faculty, staff, residents, and students generate more than **\$4.8 million annually** in charitable donations, volunteer services, and provision of reduced-cost dental care to the community. UFCD is one of the largest providers of high-quality, affordable dental care to Florida's low-income residents: More than 70% of the college's patients meet federal low-income guidelines. Dental care in a DMD student clinic typically costs 30% to 50% less than a private practice's usual and customary fees. In addition to providing reduced-fee care in its student and resident clinics, the college hosts several community outreach programs providing direct dental services and oral health education for individuals, including those with special health-care needs. These community clinics and programs operated by the college, and staffed by faculty, students, and residents, contribute greatly to improving the health of Floridians.

- **“We Care” Clinic:** The Alachua County Health Department runs the “We Care” clinic at Santa Fe College with support from the Alachua County Dental Society. College of Dentistry students, residents, staff, and faculty members volunteer to provide treatment to low-income Alachua County residents.
- **Pediatric Dental Care:** Pediatric dentistry faculty, staff, and residents provide dental care to low-income individuals and patients with special needs/disabilities at:
  - The NCEF Pediatric Dental Center (Naples)
  - The ACORN Clinic (Brooker)
  - The Florida School for the Deaf and the Blind (St. Augustine)
  - The dental center at Tacachale, a state-operated residential facility for persons with developmental disabilities





- **Educational Service Trips:** The College of Dentistry has established ongoing collaborations in the Bahamas, the Dominican Republic, Ecuador, Guatemala, and Jamaica to sponsor educational service trips and student exchanges. During college breaks, dental students, under the supervision of dental faculty and volunteer dentists, travel to provide much-needed oral care to underserved patients including extractions, temporary and permanent restorations, silver diamine fluoride applications, fluoride varnish, and oral hygiene instructions.

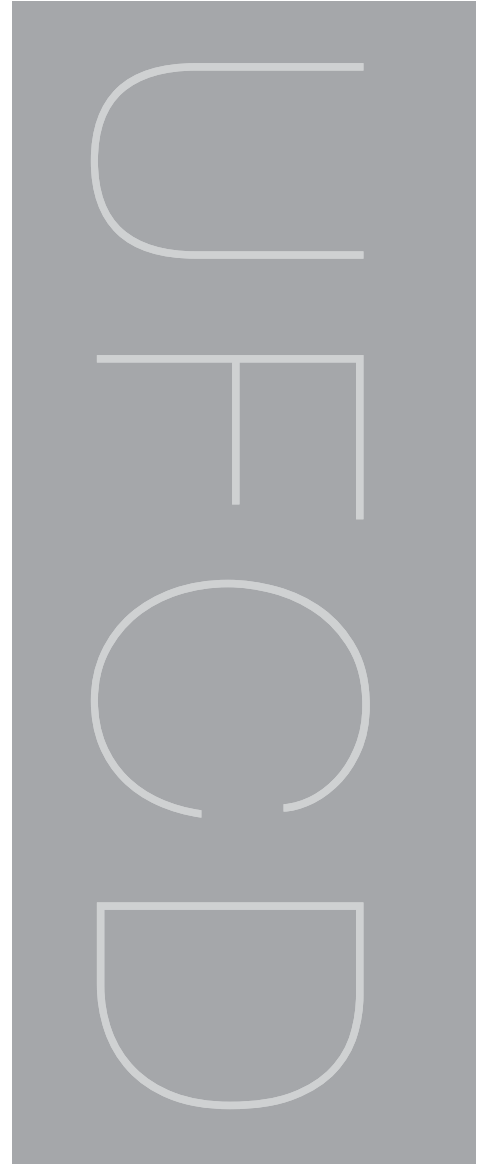
These educational service trips allow people with no or limited access to oral health care to see a dentist, and they give dental students an opportunity to give of themselves, experience personal and professional growth, and gain more awareness of global health disparities.

- **UF SHPEP:** The University of Florida Student Health Professions Education Program, or UF SHPEP, is an annual six-week academic enrichment program currently in its fifth year. Each year, 80 college students, almost half of whom come from Florida, learn about the fields of dentistry, medicine, nursing, physician assisting, pharmacy, public health, health professions, and veterinary medicine. Most participants, rising sophomores and juniors, come from backgrounds that are underrepresented in healthcare.
- **SNDA Impressions Program:** The Impressions Program is one day of activities sponsored by the Student National Dental Association. Its mission is to familiarize underrepresented pre-dental students to careers in dentistry and to the application and financial aid process, making participants stronger dental school applicants.
- **Putting Families First Program:** Teams of UF students from various health professions make regular visits to families' homes and work together to determine ways to improve or maintain family health. Students cover dental, medical, mental health, nursing, nutrition, pharmacy, physical therapy, rehabilitation, social support, and even animal health needs.
- **More than \$502,000** is donated to local charitable organizations by College of Dentistry faculty, staff, residents, and students.<sup>2</sup>



<sup>2</sup> Source: Tripp Umbach has conducted survey research where students (primary), staff, and faculty (secondary) provide estimates on spending patterns, including information on the number of volunteer hours and charitable donations they provide. Tripp Umbach used a conservative assumption of \$20.08 per hour to calculate the value of volunteer services in the state of Florida. This amount was originally calculated independently by the Independent Sector.

- **Nearly \$1.8 million in value of volunteer time** is provided to area communities by College of Dentistry faculty, staff, residents, and students.
- **\$14.9M in undercompensated dental care is provided to Floridians by UFCD faculty, residents, staff, and students. Additionally, \$2.5 million in uncompensated dental care** is provided resulting from patient and insurance write-offs and bad debt.
- This preventative care is essential to the communities that would otherwise not be able to afford dental care. Poor oral health can have a real impact on a child's ability to learn or adult's ability to function at work. Oral diseases such as cavities can cause decreased appetite, depression, and inability to focus attention – all of which can lead to lower school and work attendance and reduced performance. Children in low-income families with limited access to preventive care will miss three times as many school days due to oral health problems.<sup>3</sup> Tripp Umbach estimates that UFCD's under and uncompensated care provided in the communities equates to **\$168.6 million** in healthcare cost savings and **\$67.2 million** in improved economic performance.<sup>4</sup>



<sup>3</sup> ADA ER Utilization Report

<sup>4</sup> Based on the economic value to the economy resulting from 3 days of missed work due to dental issues annually.

# IMPACTS IN ALACHUA COUNTY

The UF College of Dentistry dental centers in Gainesville offer a complete range of general and specialty dental care for adults and children in one location. The college offers the latest technologies in a professional learning environment, conveniently located at the UF Academic Health Center. Services in Gainesville include general dentistry, endodontics, esthetics, facial pain, oral & maxillofacial surgery, oral medicine, oral pathology, oral radiology, orthodontics, prosthodontics, periodontics, and pediatric dental care.

To address the COVID-19 crisis, the UF College of Dentistry launched teledentistry video appointments to provide emergency care and screen patients through the safe and secure platform Zoom. This allowed patients to remain at home for screening and appropriate management, which may or may not require a follow-up, face-to-face visit. Enabling the video appointments allowed the college to provide much-needed oral health-care expertise during the opening days of the pandemic, to preserve PPE supplies, and support the directives for social distancing and emergency-only dental care.

## Economic Impact in Alachua County

In FY20, the UF College of Dentistry in Gainesville produced \$182.5 million in economic impact in Alachua County. The total economic impact in Alachua County includes the direct spending of the organization in the area (\$72.0 million), as well as the indirect and induced spending that occurs in the area as a result of the UFCD presence (\$110.5 million).

## Employment Impact in Alachua County

In FY20, UF College of Dentistry in Alachua County directly supported approximately 723 jobs (both full-time and part-time). This direct employment allows the college to have a more valuable role in the total employment impact, which translates to more pronounced impacts on the community. These directly employed individuals spend dollars in the community and, therefore, support additional employment. Also, spending on capital projects, development and planning projects, and spending on suppliers all support additional jobs. After all of these avenues of employment are realized, UFCD directly and indirectly supported a total of 1,910 jobs in the area.

## Local Government Revenue Impact

As a result of spending in the community by the college, by employees living in the region, and by patients and visitors coming to the region for oral health care, UFCD generates tax revenue that goes directly back to local governments. In FY20, the operations generated a total of \$4.8 million in direct as well as the indirect and induced tax payments to the local governments.

# \$182.5M

IN ECONOMIC IMPACT  
IN ALACHUA COUNTY

# 1,910

JOBS SUPPORTED  
AND SUSTAINED  
IN ALACHUA COUNTY

# \$4.8M

IN GOVERNMENT  
REVENUE IMPACT  
IN ALACHUA COUNTY



UF College of Dentistry

# IMPACTS IN COLLIER COUNTY

The goal of the NCEF Pediatric Dental Center is to provide specialized, comprehensive dental care to children in Southwest Florida. The center represents an innovative collaboration between the Naples Children and Education Foundation, the UF College of Dentistry, and Florida South-Western State College (Collier Campus).

The Naples two-year pediatric dentistry residency training program is part of the UFCD pediatric dentistry residency program in Gainesville. Residents receive their didactic training via videoconferencing with the Gainesville program, a nationally recognized leader in pediatric dental education. NCEF pediatric dental residents also provide dental care at Physicians Regional Medical Center and Golisano Children's Hospital and attend the Cleft Palate Clinic at Health Park, Lee Memorial Hospital in Fort Myers. These residents complete an anesthesia rotation at Nicklaus Children's Hospital as well. Residents also assist with the UFCD Community Outreach program in Naples (serving children in the Collier County Schools). Through this outreach, they provide dental screenings, dental sealants, silver diamine fluoride, and fluoride varnish to children.

## Economic Impact in Collier County

In FY20, UF College of Dentistry in the Naples region produced \$7.2 million in economic impact in Collier County. The total economic impact in Collier County includes the direct spending of the organization in the area (\$3.1 million), as well as the indirect and induced spending that occurs in the area as a result of UFCD's presence (\$4.1 million).

## Employment Impact in Collier County

In FY20, the UF College of Dentistry in Collier County directly supported approximately 51 jobs (both full-time and part-time). This direct employment allows the college to have a more valuable role in the total employment impact, and in turn, a more valuable role in the community. These directly employed individuals spend dollars in the community and, therefore, support additional employment. Also, spending on capital projects, development and planning projects, and spending on suppliers all support additional jobs. After all of these avenues of employment are realized, UFCD directly and indirectly supported a total of 94 jobs in the area.

## Local Government Revenue Impact

As a result of spending in the community by the college, employees living in the region, and patients and visitors to the dental center, UFCD generates tax revenue that goes directly back to local governments. In FY20, the operations generated a total of \$178,185 in direct as well as the indirect and induced tax payments to the state and local governments.

**\$7.2M**

IN ECONOMIC IMPACT  
IN COLLIER COUNTY

**94**

JOBS SUPPORTED  
AND SUSTAINED  
IN COLLIER COUNTY

**\$178.1K**

IN GOVERNMENT  
REVENUE IMPACT  
IN COLLIER COUNTY



NCEF Pediatric Dental Center

# IMPACTS IN NASSAU COUNTY

UF Health Dentistry – Wildlight began serving patients in January 2020. Wildlight includes 2,900 square feet of dental clinic space with six operatories to care for patients as part of UF Health Wildlight in Yulee, north of Jacksonville. The Wildlight Dental Center provides comprehensive care to patients with a range of dental and oral health needs.

## Economic Impact in Nassau County

In FY20, the UF College of Dentistry produced a total of \$610,100 in economic impact in Nassau County. The total economic impact of the college includes the direct spending of the organization in the area (\$381,674), as well as the indirect and induced spending that occurs in the area as a result of its presence in the county (\$228,426).

## Employment Impact in Nassau County

In FY20, the UF College of Dentistry directly supported three jobs (both full-time and part-time) in the county. This direct employment generates indirect jobs, which then impact the total employment in the county. These directly employed individuals spend dollars in the community and, therefore, support additional employment. Also, spending on capital projects, development and planning projects, and spending on suppliers all support additional jobs. After all of these avenues of employment are realized, the college directly and indirectly supported six jobs in the area.

## Local Government Revenue Impact

As a result of spending in the community by the college, by the clinical enterprise, by employees living in the region, and by patients and visitors coming to the region, the Wildlight Dental Center generates tax revenue that goes directly back to local governments. In FY20, the county operations generated \$8,000 in direct, indirect, and induced tax payments.

**\$610.1K**

IN ECONOMIC IMPACT  
IN NASSAU COUNTY

**6**

JOBS SUPPORTED  
AND SUSTAINED  
IN NASSAU COUNTY

**\$8,000**

IN GOVERNMENT  
REVENUE IMPACT  
IN NASSAU COUNTY



UF Health Dentistry - Wildlight



# IMPACTS IN HILLSBOROUGH & PINELLAS COUNTY AREA

The 12-month Advanced Education in General Dentistry (AEGD) certificate program at the UF Health St. Petersburg Dental Center is designed to provide advanced clinical and didactic training in all disciplines of general dentistry beyond the training received in dental school. Dental residents provide a complete range of oral health services for adults and children under faculty supervision.

Patient treatment is frequently complex and challenging, and dental residents have multiple opportunities for experience in dental implants, periodontal surgery, advanced prosthetics, oral surgery, and orthodontics. The faculty, which includes specialists from various dental disciplines and general dentists, provide continuous coverage in the clinic. They also dedicate their time after hours to offer advice and guidance through seminars aimed at preparing the residents for practice. With the help of generous philanthropic support, the program has a long-standing record of providing preventive dental services for persons with special health care needs in the community.

## Economic Impact in Hillsborough & Pinellas Area

In FY20, the UF College of Dentistry produced a total of \$8.3 million in economic impact in Hillsborough and Pinellas counties. The total economic impact of the college includes the direct spending of the organization in the area (\$2.6 million), as well as the indirect and induced spending that occurs in the area as a result of its presence in the county (\$5.7 million).

## Employment Impact in Hillsborough & Pinellas Area

In FY20, the UF College of Dentistry directly supported approximately 40 jobs (both full-time and part-time) in the counties. This direct employment generates indirect jobs, which then impact the total employment in the counties. These directly employed individuals spend dollars in the community and, therefore, support additional employment. Also, spending on capital projects, development and planning projects, and spending on suppliers all support additional jobs. After all of these avenues of employment are realized, the college directly and indirectly supported 94 jobs in the area.

## Local Government Revenue Impact

As a result of spending in the community by the college, by the clinical enterprise, by employees living in the region, and by patients and visitors coming to the region, the UF Health St. Petersburg Dental Center generates tax revenue that goes directly back to local governments. In FY20, the county operations generated \$163,100 in direct as well as the indirect and induced tax payments.

# \$8.3M

IN ECONOMIC IMPACT  
IN HILLSBOROUGH &  
PINELLAS COUNTIES

# 94

JOBS SUPPORTED  
AND SUSTAINED  
IN HILLSBOROUGH &  
PINELLAS COUNTIES

# \$163.1K

IN GOVERNMENT  
REVENUE IMPACT  
IN HILLSBOROUGH &  
PINELLAS COUNTIES



St. Petersburg Dental Center



# IMPACTS IN MIAMI-DADE COUNTY

The UF Hialeah Dental Center offers an Advanced Education in General Dentistry program, focused on dentists who completed their dental education in another country, affords residents the privilege of serving underserved urban populations while, at the same time, gaining valuable educational and clinical experience under faculty supervision with real patients. The objective of the program is to provide advanced training in clinical dentistry and the applied basic sciences beyond the level of pre-doctoral education. The program also provides a certificate that allows graduates to take the Florida Dental Licensing Board examination, thereby increasing the dental workforce in Florida.

The program is designed to enhance the scope of knowledge and clinical skills required to provide comprehensive oral health care for all patient populations.

## Economic Impact in Miami-Dade County

In FY20, UF College of Dentistry in Miami-Dade County produced a total of \$12.8 million in economic impact in Miami-Dade County. The total economic impact in Miami-Dade County includes the direct spending of the organization in the area (\$3.0 million), as well as the indirect and induced spending that occurs in the area as a result of UFCD's presence (\$9.8 million).

## Employment Impact in Miami-Dade County

In FY20, UF College of Dentistry in Miami-Dade County directly supported approximately 84 jobs (both full-time and part-time). This direct employment allows the college to have a more valuable role in the total employment impact, which it then has on the community. These directly employed individuals spend dollars in the community and, therefore, support additional employment. Also, spending on capital projects, development and planning projects, and spending on suppliers all support additional jobs. After all of these avenues of employment are realized, UFCD directly and indirectly supported 319 jobs in the area.

## Local Government Revenue Impact

As a result of spending in the community by the college, the clinical enterprise, employees living in the region, and by patients and visitors coming to the region, the UF Health Hialeah Dental Center generates tax revenue that goes directly back to local governments. In FY20, the county operations generated \$500,100 in direct as well as the indirect and induced tax payments.

**\$8.3M**

IN ECONOMIC IMPACT  
IN MIAMI-DADE  
COUNTY

**134**

JOBS SUPPORTED  
AND SUSTAINED  
IN MIAMI-DADE  
COUNTY

**\$195.3K**

IN GOVERNMENT  
REVENUE IMPACT  
IN MIAMI-DADE  
COUNTY



The UF Hialeah Dental Center

# APPENDIX A:

## DEFINITION OF TERMS

**Study Year:** Fiscal year was defined as FY 2020. FY20 runs from July 1, 2019, through June 30, 2020.

**Data Source:** University of Florida College of Dentistry 2020 data.

**Methodology:** IMPLAN and Tripp Umbach modeling on Community Benefits Impacts based on proprietary primary data collection.

**Total Economic Impact:** The total impact of an organization is a compilation of the direct impact, the indirect impact, and the induced impact generated in the economy as a result of the organization.

**Direct Economic Impact:** Direct impact includes all direct effects the organization has on the region due to the organization's operations. These include direct employees, organizational spending, employee spending, and spending by patients and visitors to the organization.

**Indirect Economic Impact:** The indirect impact includes the impact of local industries buying goods and services from other local industries. The cycle of spending works its way backward through the supply chain until all money is spent outside of the local economy, either through imports or by payments to value added.

**Induced Economic Impact:** The response by an economy to an initial change (direct effect) that occurs through re-spending of income received by a component of value added. IMPLAN's default multiplier recognizes that labor income (employee compensation and proprietor income components of value added) is not lost to the regional economy. This money is recirculated through the household spending patterns, causing further local economic activity.

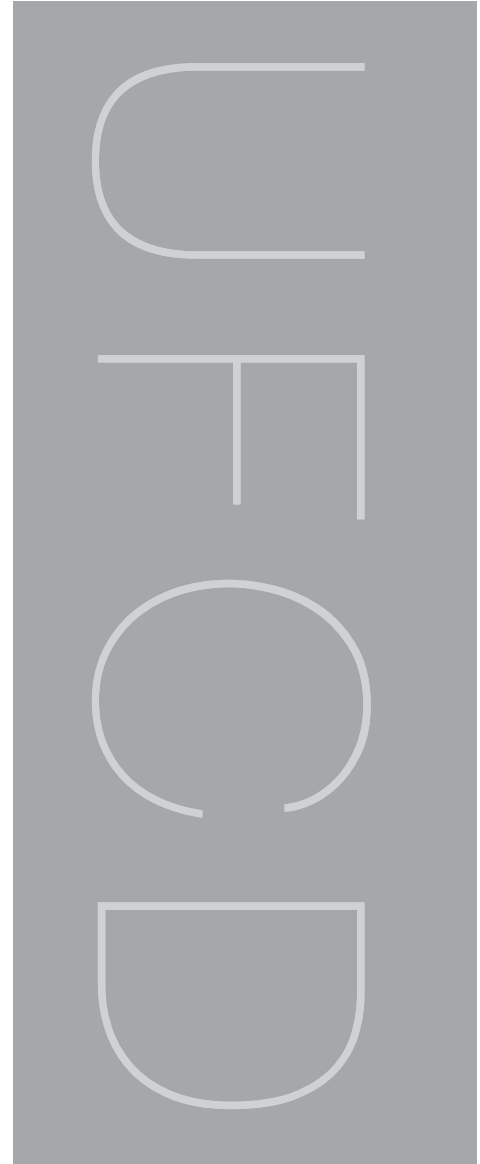
**Multiplier Effect:** The multiplier effect is the additional economic impact created as a result of the organization's direct economic impact. Local companies that provide goods and services to an organization increase their purchasing by creating a multiplier.

**Government Revenue:** Government revenue that is collected by governmental units in addition to those paid directly by an organization, including taxes paid directly by employees of the organization, visitors to the organization, and vendors who sell products to the organization.

**Jobs:** A job can be a full-time or part-time position; therefore, a job, in IMPLAN analysis is not equivalent to a full-time equivalent (FTE) job.

**Direct Employment:** Total number of employees, both full-time and part-time, at the organization based on total jobs. Total headcount of individuals who receive a paycheck from the organization.

**Indirect Employment:** Indirect employment is the additional jobs created as a result of the organization's economic impact. Local companies that provide goods and services to an organization increase their number of employees as purchasing increases, creating an employment multiplier.



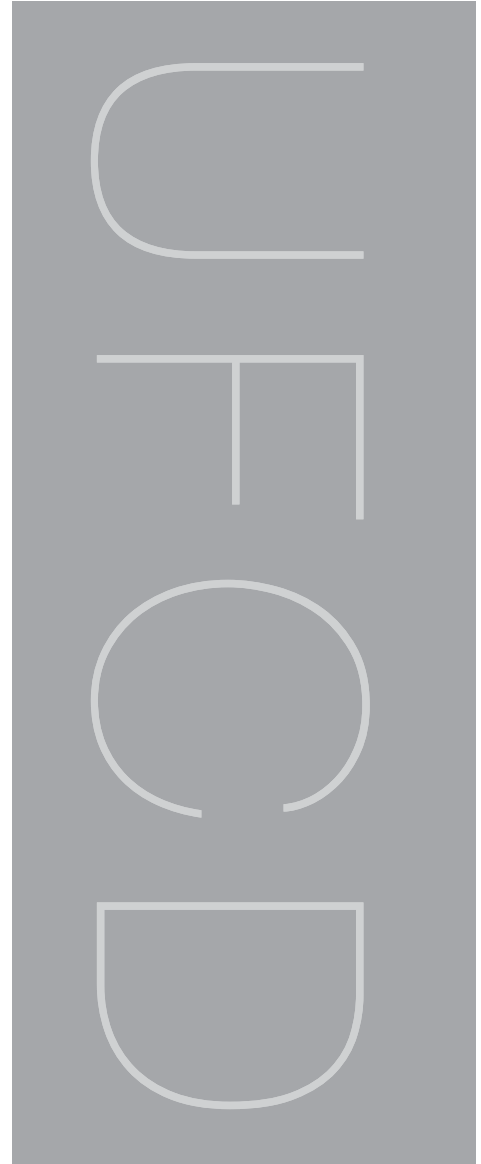
# APPENDIX B:

## METHODOLOGY

To produce its report, Tripp Umbach gathered and analyzed relevant data related to the operations and activity of the University of Florida College of Dentistry. That included quantitative data such as spending and employment values, as well as qualitative data gathered through interviews with key local stakeholders. The analysis sought to quantify the impacts of each of the dental centers and the combined impacts of the system in the state of Florida as well as in the counties where UF dental centers are located.

This economic impact analysis measures the effect of direct and indirect/induced business volume and government revenue impacts for all University of Florida College of Dentistry operations throughout the state. The methodology employed in the calculation of these impacts was IMPLAN. Primary data used to conduct the analysis were collected from the College of Dentistry. The multipliers used in this study were derived from the IMPLAN<sup>5</sup> software. Tripp Umbach's approach to economic impact analysis is conservative by way of utilizing the industry standard software, IMPLAN, to conduct the impact analysis as well as using conservative assumptions for individual spending patterns. Tripp Umbach bases assumptions of visitor and patient spending on per diem rates.

Economic impact begins when an organization spends money. Studies measuring economic impact capture the direct economic impact of an organization's spending, plus additional indirect and induced spending in the economy as a result of direct spending. Visitor spending in the region is also a substantial component of the economic impact of an organization; visitors spend on retail, hotels/motels, restaurants, and other goods and services, all of which filter through the economy and support local jobs.



<sup>5</sup> Minnesota IMPLAN Group Inc. (MIG) is the corporation that is responsible for the production of IMPLAN (IMpact analysis for PLANning) data and software. IMPLAN is a micro-computer-based, input-output modeling system. With IMPLAN, one can estimate input-output models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model.

### What is included in the Economic Impact?

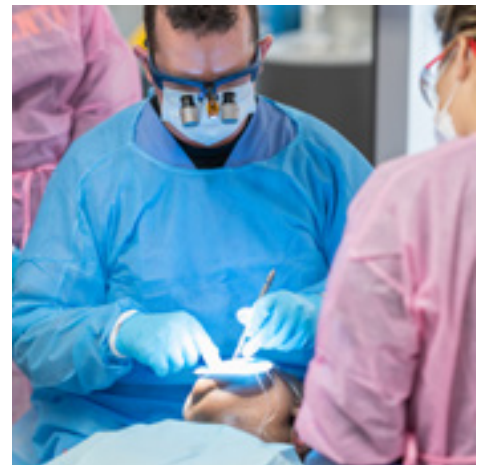
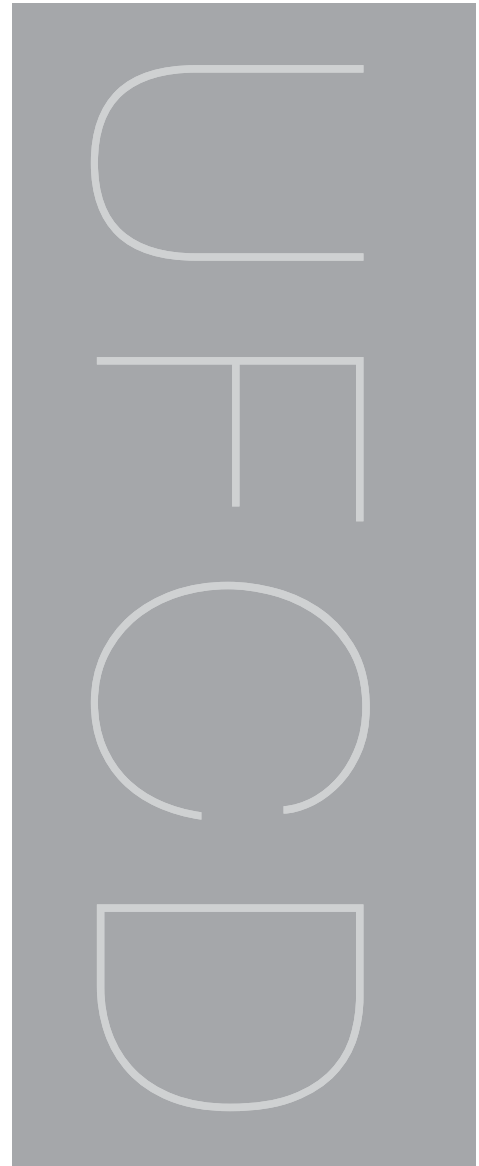
- Operational Spending
  - Capital Spending
  - Research Spending
- Number of Employees
- Salaries and Benefits
- Visitor Spending

### What is not included in the Economic Impact?

- Research Commercialization
  - Attraction Power
- Knowledge and Expertise
  - Arts and Culture

Total economic impact measures the dollars generated within Florida due to the presence of the UF College of Dentistry. This includes not only the college's spending on goods and services with a variety of vendors and the spending of its faculty, physicians, staff, students, patients, and visitors but also the business volume generated by businesses within Florida that benefit from the college's spending. While not all dollars spent by a university remain in its immediate locale, the economic impacts described in this report include only those that are spent in the region in the form of purchases from in-area vendors, employees, the college, and the dental centers.

The economic impact analysis conducted for this study gathered and modeled FY20 data for each of the various geographies where operations are significant in the state and local markets. The analysis looked at impacts of the UF College of Dentistry on the state and local levels where the data was available.



# APPENDIX C: FAQs REGARDING ECONOMIC IMPACT ANALYSIS

## What is economic impact?

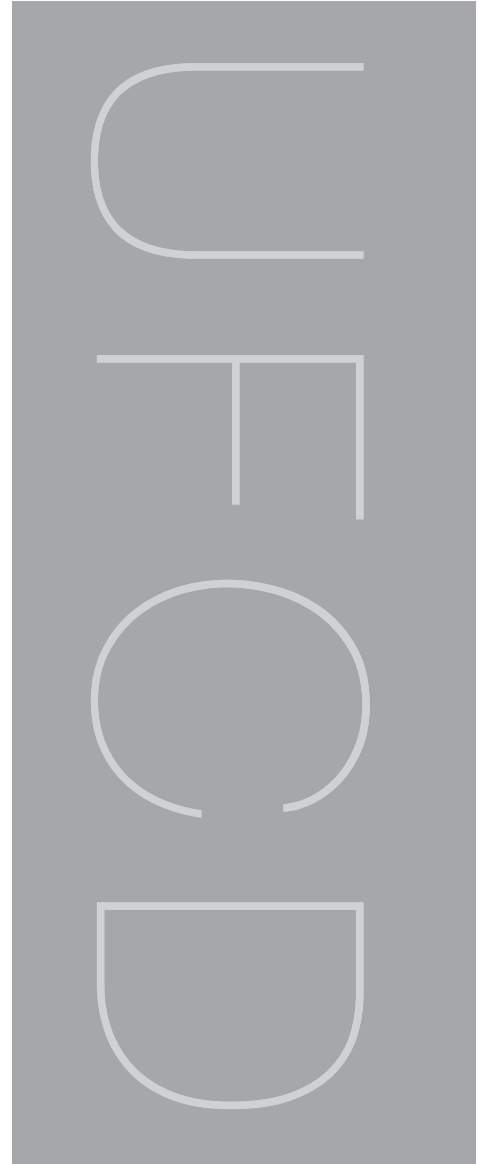
Economic impact begins when an organization spends money. Economic impact studies measure the direct economic impact of an organization's spending, plus additional indirect spending in the economy as a result of direct spending. Economic impact has nothing to do with dollars collected by institutions, their profitability, or even their sustainability, since all operating organizations have a positive economic impact when they spend money and attract spending from outside sources.

Direct economic impact measures the dollars that are generated within Florida and the nation because of the presence of the College of Dentistry. This includes not only spending on goods and services with a variety of vendors within the state, and the spending of its staff and visitors, but also the business volume generated by businesses within Florida that benefit from the College of Dentistry's spending. It is important to remember that not all dollars spent by the school remain in its home state. Dollars that "leak" out of the state in the form of purchases from out-of-state vendors are not included in the college's economic impact on the state.

The total economic impact includes the "multiplier" of spending from companies that do business with the College of Dentistry. Support businesses may include lodging establishments, restaurants, construction firms, vendors, and temporary agencies, etc. Spending multipliers attempt to estimate the ripple effect in the provincial economy where the spending occurs. For example: Spending by the College of Dentistry with local vendors provides these vendors with additional dollars that they re-spend in the local economy, causing a "multiplier effect."

## What is the multiplier effect?

Multipliers are a numeric way of describing the secondary impacts stemming from the operations of an organization. For example, an employment multiplier of 1.8 would suggest that for every 10 employees hired in the given industry, eight additional jobs would be created in other industries, such that 18 total jobs would be added to the given economic region.





### **What is employment impact?**

Employment impact measures the direct employment (staff, faculty, administration) plus additional employment created in the economy as a result of the operations of the College of Dentistry.

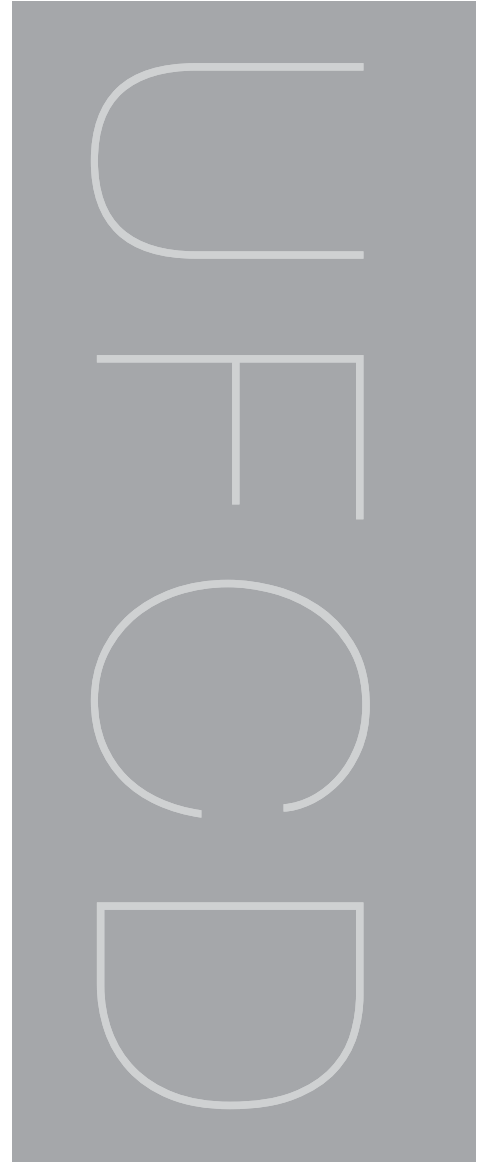
Indirect and induced employment impact refers to other jobs throughout the state that exist because of the College of Dentistry's economic impact. In other words, jobs related to the population – city services (police, fire), employees at local hotels and restaurants, clerks at local retail establishments, residents employed by vendors used by College of Dentistry.

### **Is this a one-time impact or does the economic contribution repeat each year?**

The results presented in the College of Dentistry economic impact study are generated for FY20. The economic impact in future years may either increase or decrease based on number of students, capital expansion, increases in external research and research grants, and state appropriations.

### **What are Tripp Umbach's qualifications to perform an economic contribution analysis for the College of Dentistry?**

Tripp Umbach is the leader in providing economic impact analysis to leading health-care organizations, universities, and academic health centers. Tripp Umbach has completed more than 150 economic impact studies over the past 20 years for clients such as The Association of Faculties of Medicine of Canada, The Association of American Medical Colleges, The University of Minnesota, Indiana University and IU Health, The Ohio State University, the University of Washington, the University of Iowa, UAB, Cleveland Clinic, University of Florida Shands HealthCare, the University of North Carolina Hospitals, the University of Pennsylvania Medical Center, the University of Pittsburgh Medical Center, and the Ohio State University Medical Center. Tripp Umbach has completed economic impact studies for all members of the AFMC and the University of Alberta Faculty of Medicine & Dentistry.





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