

## **ABSTRACT: 2019 ELAM Institutional Action Project**

**Project Title:** Situational Analysis of the Tuition Challenge in Dental education: *A Snap Shot* of Tufts University School of Dental Medicine

**Name and Institution:** Aruna Ramesh, Tufts University School of Dental Medicine (TUSDM)

**Collaborators and Mentors:** Dean Huw F. Thomas, Office of Academic and Student Affairs

**Topic Category:** Education

**Background, Significance of project:** The 'Advancing Dental Education in the 21<sup>st</sup> Century' Project presents a composite picture of the current state of dental education in the United States. One of the primary areas of focus addressed by the project is the relationship between student debt, tuition cost and dental school finances. The tuition and fee increased nationally 68.6% and 38.9% for public and private dental schools respectively between 2004 and 2011. This upward tendency over the last several years was accompanied by an increase in average student debt to \$247,000 in 2014 with 20% reporting debt of over \$350,000. This has resulted in an unfavorable debt to income ratio approaching 100%, negatively impacting both the return on investment for dental education as well as socio-economic and racial diversity of dental school applicants. The rising cost of dental education is closely related to various factors like recruitment and retention of highly qualified faculty, sustaining research efforts for advancing the profession and public health, preparing graduates for success in a changing landscape, fostering diversity, addressing access to care challenges, maintenance of appropriate student to faculty ratio, and improving efficiency of clinical enterprises. In spite of a general awareness about all factors tied to tuition cost, there is no comprehensive analysis in this regard readily available at TUSDM. The goal of this project was to investigate the high tuition cost as it relates to precipitating factors and consequences for the school. A secondary goal is to list potential strategies that may aid in addressing this challenge.

**Purpose/Objectives:** To perform a situational analysis of the tuition challenge that informs future strategies at TUSDM

**Methods/Approach/Evaluation Strategy:** Interviews with the President of the University, Provost's office, the dental school Dean and Associate Deans, offices of institutional research, student and financial affairs of the University and the school were conducted. National and TUSDM data was organized into customized precursor and consequence lists to provide a comprehensive *snap shot* of where TUSDM is today.

**Outcomes/Results:** A composite picture of the current state of tuition challenge at TUSDM. The composite presents an interconnected web of the factors that influence tuition cost as well as those impacted by it. The analysis will also include potential opportunities that could aid in addressing this challenge.

**Discussion/Conclusion with Statement of Impact/Potential Impact:** Resolution of any challenge requires a thorough analysis of the status quo. This project addresses a need for a comprehensive analysis of the multifactorial tuition challenge at the dental school. A potential impact of this project is the utilization of this situational analysis to guide a Task Force, charged with strategic management of the tuition challenge in dental education at TUSDM.

Aruna Ramesh, Professor and Chair, Department of Diagnostic Sciences, Tufts University School of Dental Medicine

## Background

The 'Advancing Dental Education in the 21<sup>st</sup> Century' Project presents a composite picture of the current state of dental education in the United States. One of the primary areas of focus addressed by the project is the relationship between student debt, tuition costs and dental school finances. Tuition and fees increased nationally 68.6% and 38.9% for public and private dental schools respectively between 2004 and 2011. This upward trend over the last several years was accompanied by an increase in average student debt to \$247,000 in 2014 with 20% reporting debt of over \$350,000. This has resulted in an unfavorable debt to income ratio approaching 100%, negatively impacting both the return on investment for dental education as well as socio-economic and racial diversity of dental school applicants. 2011 Dental Education Average return on investment was 29.78%. The cost of dental education grew by 4.45 % and average annual dentist earnings grew 3.8%. The national data also shows an overall small influence of career choices by dentists with increasing student debt. Women dentists appear to be more likely to opt for work in public health sector (1.2%) and less likely to own(22.5%) or work(3.6%) in private practice or specialize(11%). Compared with white dentists, Hispanic and Asian dentists were less likely to choose a specialization outside of pediatric or GP residency. There is currently no comprehensive analysis in this regard readily available at TUSDM. The goal of this project was to investigate the high tuition cost as it relates to precipitating factors and consequences for the school. A secondary goal was to identify potential strategies that would aid in addressing this challenge.

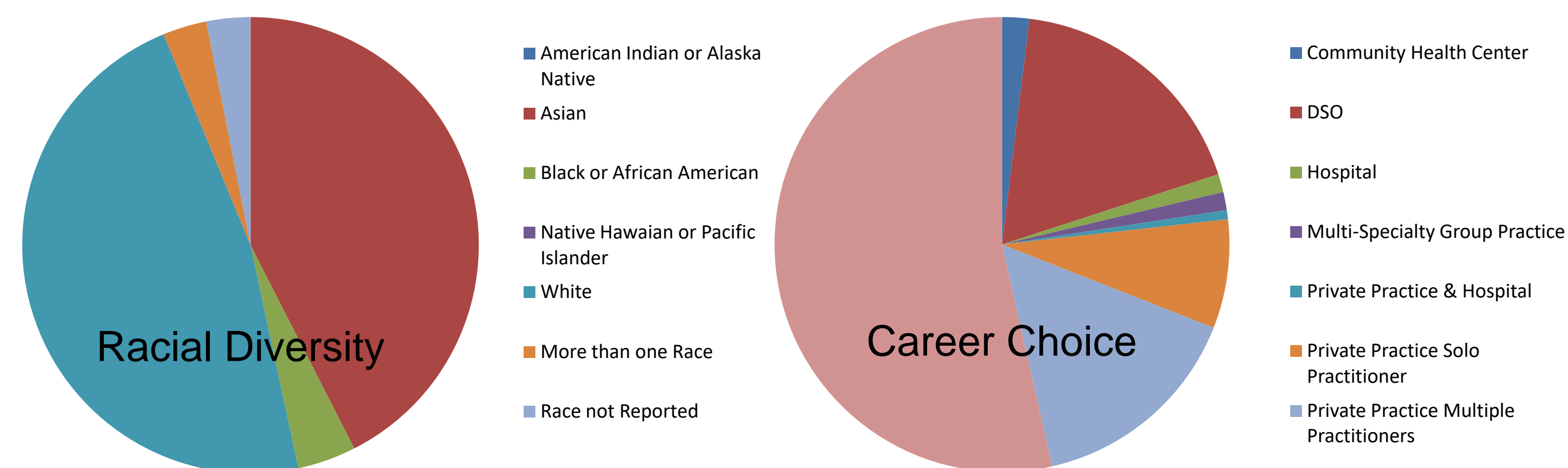
## Objective

- To perform a situational analysis of the tuition challenge that informs future strategies at TUSDM
- To provide a snap shot of the current state of tuition challenge with related factors at TUSDM
- To include potential opportunities that could aid in addressing this challenge.

## Data Collection-TUSDM

### Descriptive Characteristics: Students

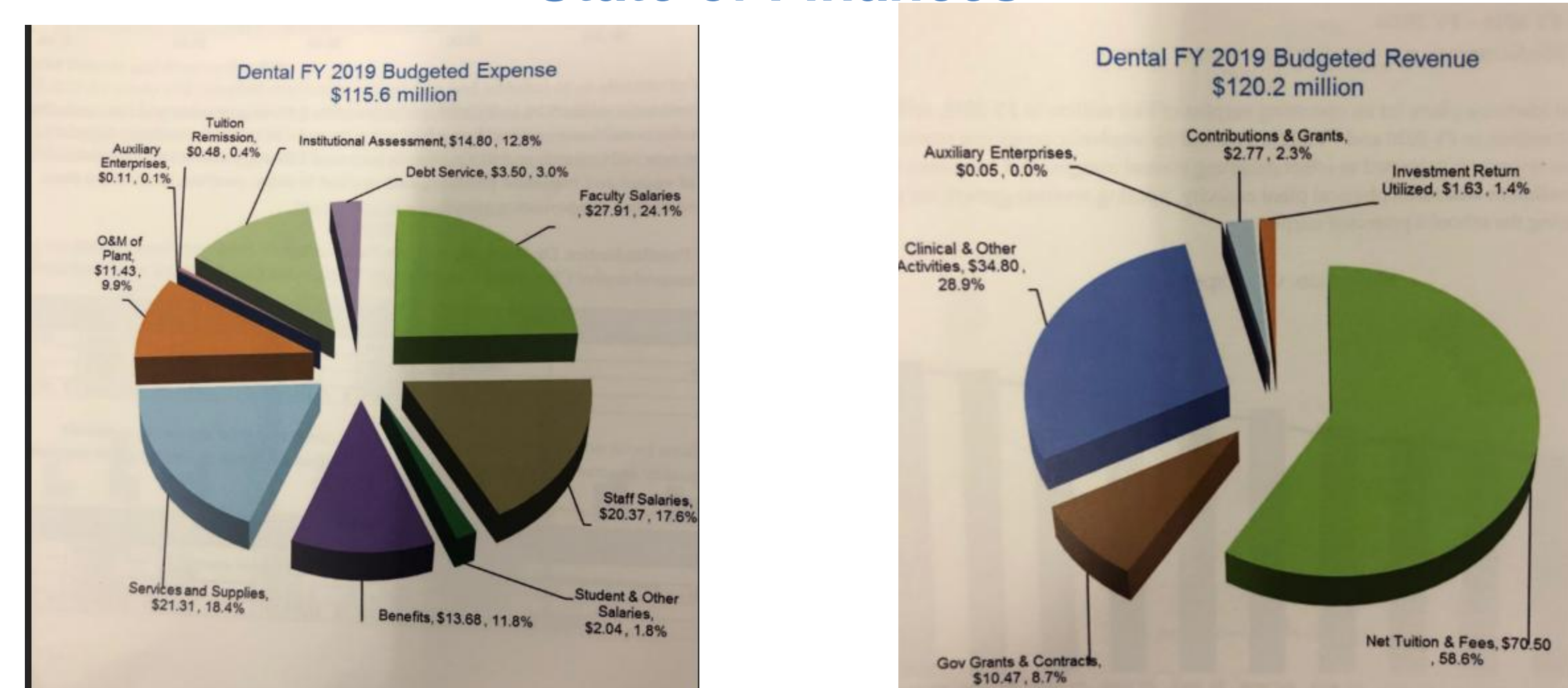
Male 84: Female 107  
 Average Debt: 336,407( borrowers only) ; debt payback times increasing  
 Underrepresented category : 25%



### Descriptive Characteristics: Faculty

Male 39; Female 117( more female Assistant Professor, More male Associate and Professor)

### State of Finances



## Outcomes- Defining Future Focus Areas

- Reduction of reliance on tuition revenue for financial sustainability
- Curriculum reform utilizing technology to reduce cost of dental education
- Enhancement of efficiencies in clinical enterprises
- Alignment with the changing Landscape of Dentistry- Interprofessional wellness model( ACO), Planning for a predominantly female dental work force
- Adequately address public health concerns related to access to dental care

## Discussion- Strategic Initiatives

### Curriculum Reform

- Utilization of technology for online educational modules for basic science and didactic course content in year 1 and 2
- Collaboration between Boston dental schools with didactic curriculum management
- Incentivizing highly productive senior dental students with tuition reduction
- Debt forgiveness with faculty recruitment
- Newer educational programs- DMD/MBA, Data science, advanced dental specialty programs
- Pipeline programs for a career in academic dentistry

### Clinical Enterprise Enhancements

#### Efficiency

- Billing efficiency
- Third party payer partnerships

#### Excellence

- serve patient communities with access challenges to overall and oral health care
- Exposure to ACO model
- Experience for senior dental students in IPP practice
- Evidence Based Practice

#### Innovation

- Focus on health-Establishment of IPP- health clinic within dental school
- Shared revenue model by Interprofessional collaboration with parallel FM and OM residency
- Address demand in children, seniors and low-income groups- public health challenge

## Conclusions

There is a call for reengineering of dental education that evolves to address challenges related to graduating competent dentists at reasonable cost to both the institution and the graduate. These efforts have to be undertaken while building an effective health infrastructure that meets the oral health needs and integrates it effectively into overall health.