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Stanford MEDICINE

School of Medicine Overview

March 5, 2021

Archna Mehta & David Ho
School of Medicine Fiscal Affairs

I. Our Place in the University and Partnership with Hospitals

II. Medical School Landscape

III. Academic Missions: Clinical care, Research & Teaching

IV. Resources and Finances

V. Other Considerations – Dean's Tax, ISC, IDC, and CFF

VI. Faculty Lifecycle

VII. Discussion

Stanford MEDICINE

Stanford University Board of Trustees

SHC Board

SCH Board

Stanford University

Marc Tessier-Lavigne
President

Stanford MEDICINE

Stanford HEALTH CARE

David Entwistle
President & CEO

Stanford Children's Health

Paul A. King
President & CEO

Stanford MEDICINE School of Medicine

Lloyd B. Minor
Dean, SoM

Rest of University

- SHC Hospital
- SHC Outpatient Centers
- SHC ValleyCare Hospital
- University HealthCare Alliance UHA

- Lucile Packard Children's Hospital
- Packard Children's Health Alliance PCHA
- Lucile Packard Foundation for Children's Health[1]

- Clinical, Basic Science Departments
- Centers and Institutes
- Medical Center Development (MCD)[1]
- Other Dean's Office Units

Affiliated Hospitals
- VA Medical Center
- Santa Clara Valley Medical Center

1. Funding responsibility shared with SoM.

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Stanford Medicine Integrated Strategic Plan Initiatives

Value Focused

New Stanford Hospital (500P)

Patient Experience

Efficiency and Effectiveness

Quality

Health Plan

People Development

Service Line Performance

Ambulatory Network Optimization

Market Development

Patient Access

Lean Transformation

Packard 2.5 & 3.0

Magnet Designation

Digitally Driven

Digital Health Care Delivery

Digital Learning

Digital Health and Industry Partnership

Uniquely Stanford

Global

SU LRP: Innovative Medicines Accelerator

SU LRP: Precision and Population Health

MD Discovery Curriculum

PhD Student Funding

Applying Precision Health

Leading the Biomedical Revolution

New Thought Leadership Initiatives

Johnson Center Strategic Refresh

Note: Items shaded are those that cut across the three Stanford Medicine entities: SoM, SHC, and SCH.

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SoM, a formula school, pays the University for five major types of central services

General Administration	• Office of President Provost • Business affairs • General counsel • IRT, Procurement • Public affairs office
Sponsored Projects	• Dean of Research, Research & Admin • Compliance • Graduate policy
Development & Gift Admin.	• Office of Development • Gift administration
Graduate & Undergraduate Education	• Admissions and Financial Aid office
Operations, Maintenance, and Utilities	• Operations and maintenance of land and facilities • Debt Service for common campus facilities • Police, Fire and Communications • Environmental Health & Safety

University Cost Recovery assessed on different Revenue Pool

Revenue Pool – FY20	Rate (%)
Graduate Tuition	12.93%
Undergraduate Tuition	30.30%
IDC & Direct Sponsored Research	7.72%
Expendable Gifts Revenue	7.62%
Healthcare Services	4.25%
All Other Revenue	3.71%
Weighted Average Assessment	***5.86%***

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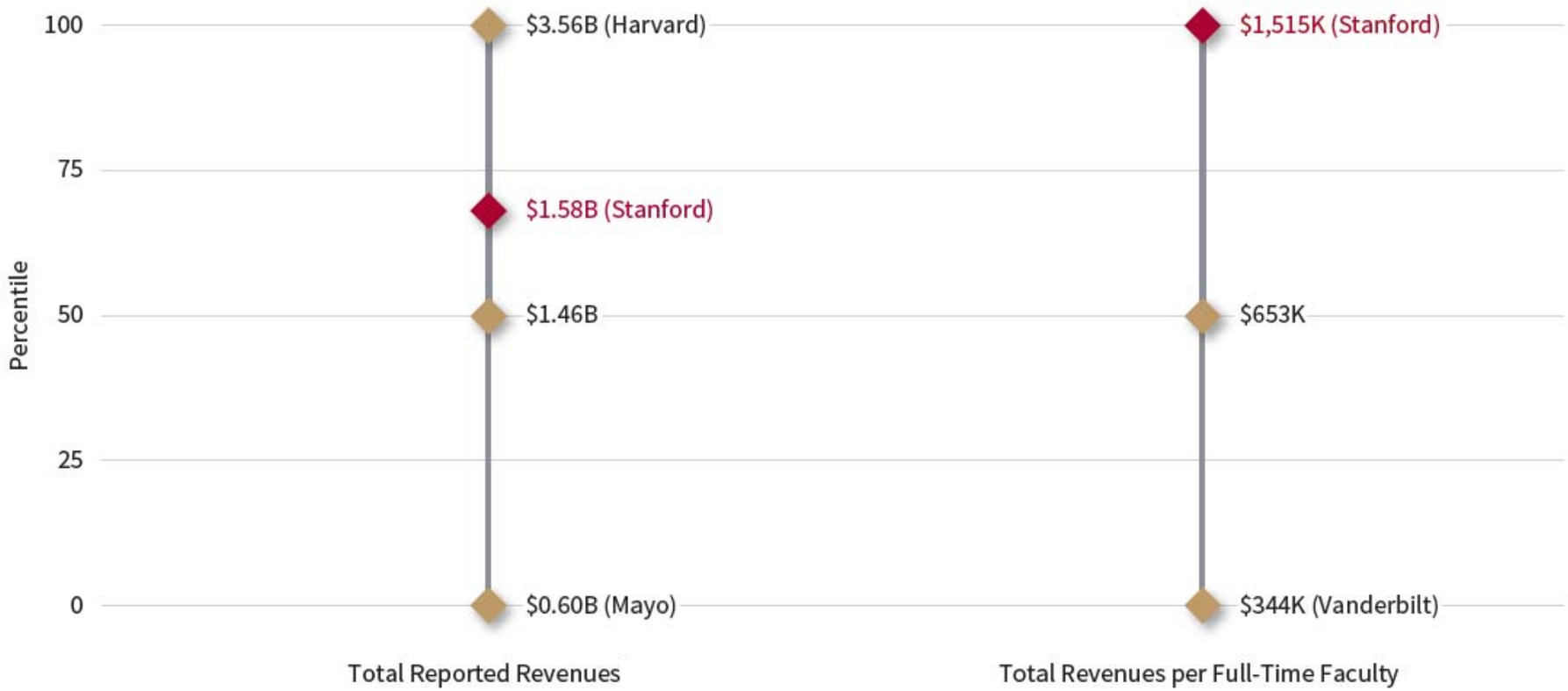
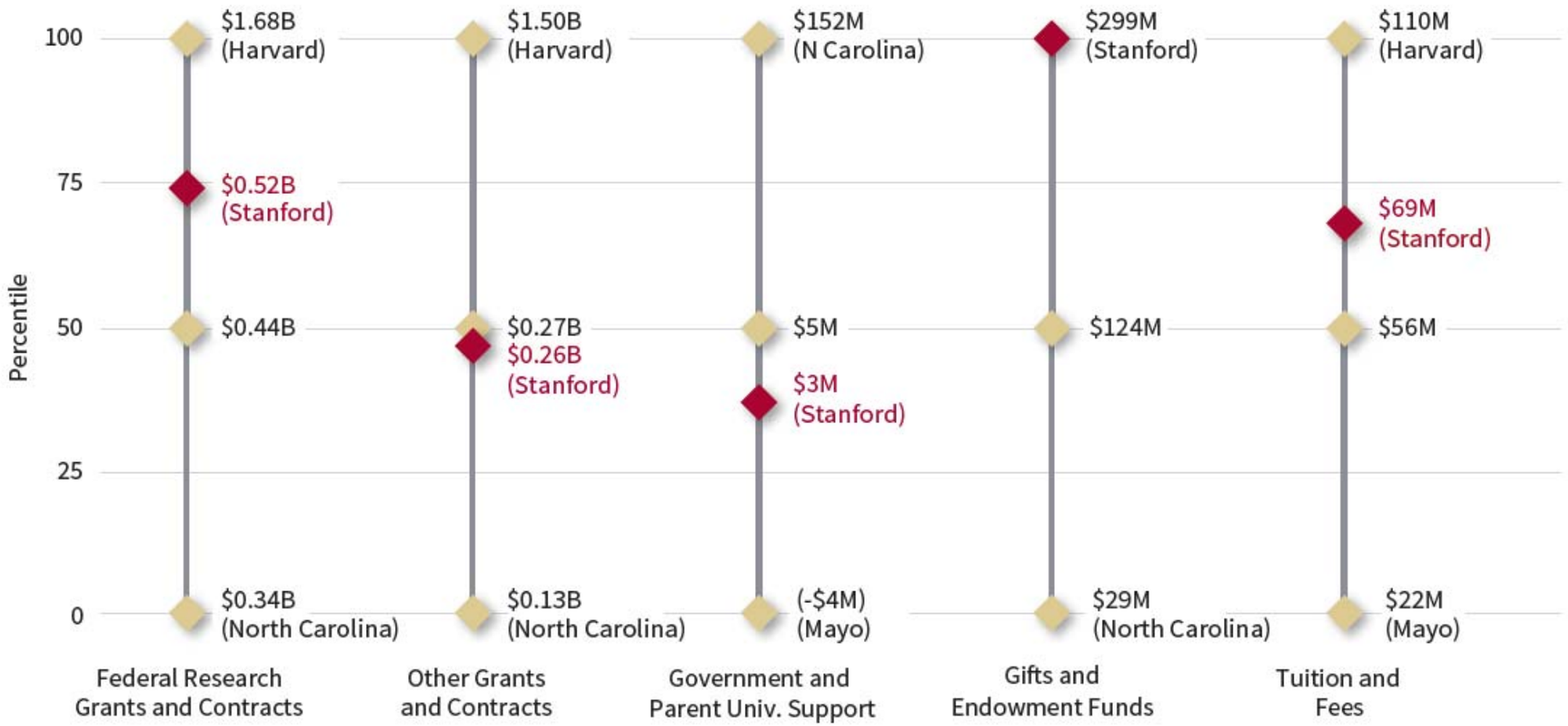
SoM Revenues
Peer School Benchmarks



Source: Association of American Medical Colleges (AAMC) Medical School Profile System. Benchmark medical schools are the 20 schools with the highest amounts (cost) of federal research grants and contracts in 2019. Total Reported Revenues excludes Practice Plans/Other Medical Services/Other Revenues. Data as of FY19.

SoM Source Distribution of Revenues
Peer School Benchmarks



Source: Association of American Medical Colleges (AAMC) Medical School Profile System. Benchmark medical schools are the 20 schools with the highest amounts (cost) of federal research grants and contracts in 2019. Total Reported Revenues excludes Practice Plans/Other Medical Services/Other Revenues. Data as of FY19.

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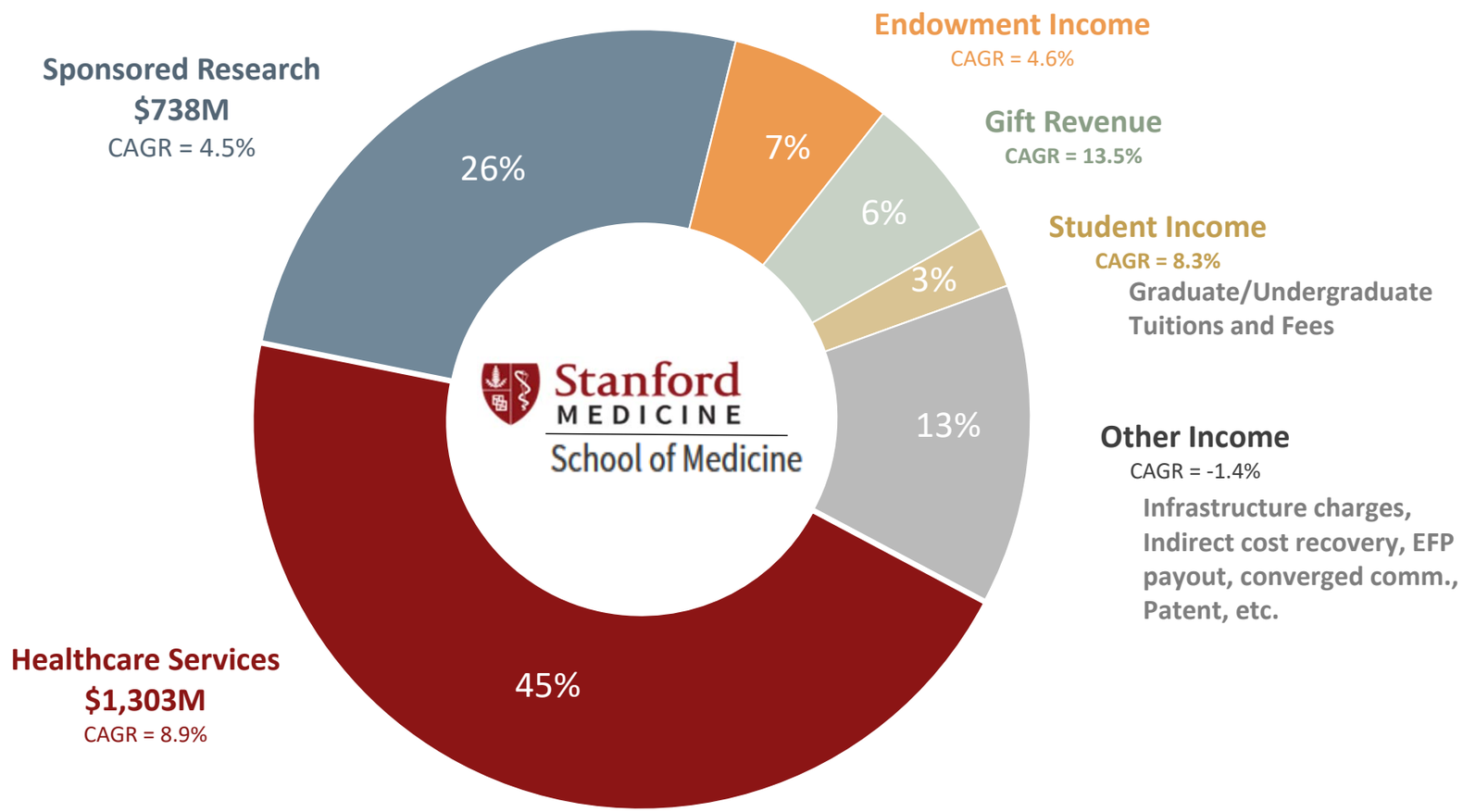
SoM operating revenues of $2.9 billion in FY 2020; primarily from healthcare services and sponsored research



CAGR represents growth rate FY16-FY20.

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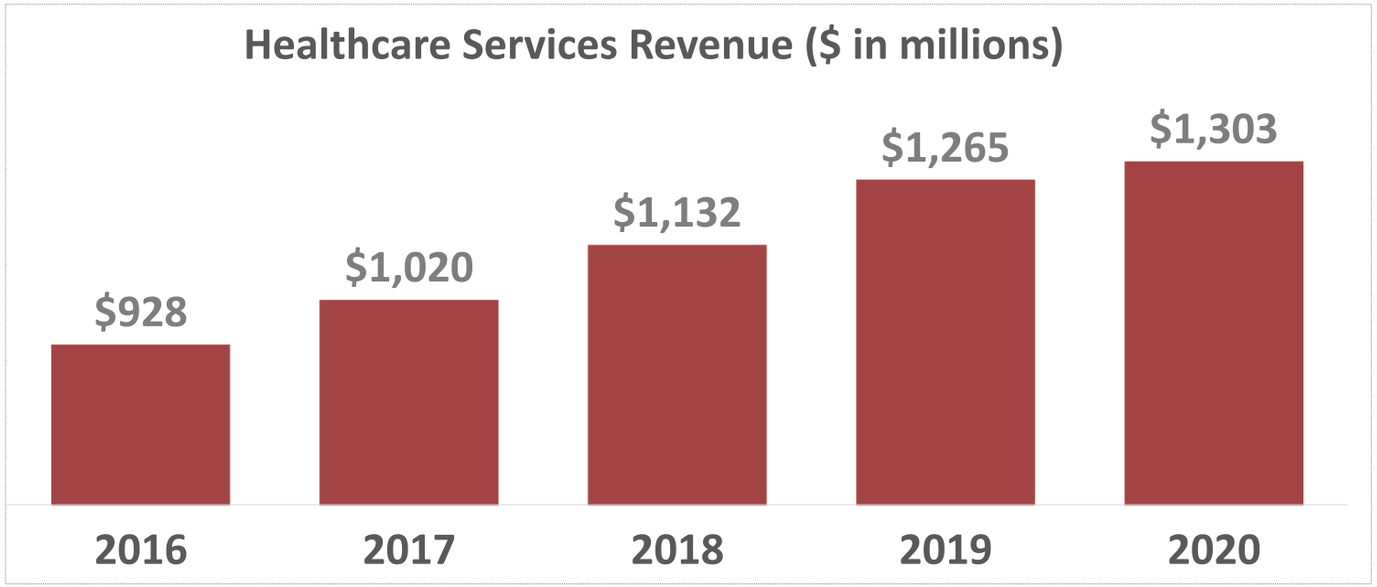
Healthcare services continues to grow strongly reaching $1.3B in 2020, 9% annualized growth from 2016



Patient Care	Time Frame			CAGR or Δ*
	2016	Trend	2020	
School of Medicine				
Faculty clinical FTEs (full-time equivalent units)	992		1,262	6.2%
Work RVUs (relative value units) [#K]	5,302		6,390	4.8%
Work RVU payments to SoM departments [$M]	$ 398		$ 565	9.2%

Values in green font: > 5% **beneficial** change (increase or decrease).

- Significant growth in **clinical FTEs** translating to the strong healthcare services revenue growth
- **Work RVUs**, a primary driver of the revenue shows **a strong 9.2%** growth between 2016-2020

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Description and Principles

SHC and SCH operate hospitals and clinics to provide patient care and manage the revenue cycle.
School of Medicine provides professional services for payments from hospitals thru wRVU rates and other financial support for the School's tripartite missions.

Strategic Principles

Further missions of the University & SoM
Recognize physician services
Incentivize clinical excellence and productivity
Market-based physician compensation
Innovative health care delivery
Aligned objectives

→ Shared financial sustainability

Operating Principles

Simplicity
Formula-driven
Comprehensive
Transparent
Excludes joint ventures *(going forward)*

→ Stable, predictable, and consistent payment agreement

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Description and Principles *(cont'd)*

Stanford HEALTH CARE | Stanford Children's Health

- Provide infrastructure and clinical staff to support patient services
- Billing and contracting
- Professional fee and revenue management
- Medical malpractice insurance

Faculty & CE Effort

Clinical Funds Flow

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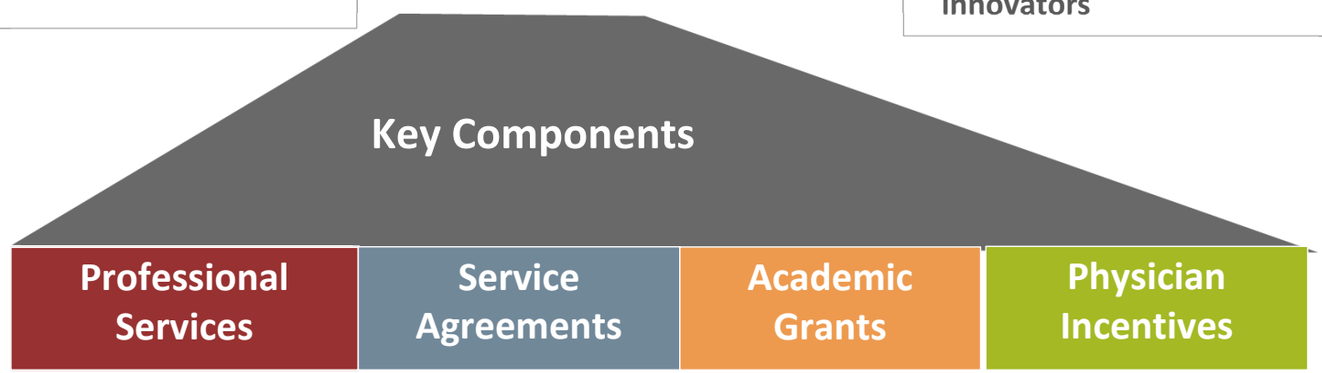
- Appoint Faculty and CEs who provide patient care
- Conduct research and clinical trials
- Educate future physicians, physician assistants, and research innovators

Stanford University

Central Services

University Assessment



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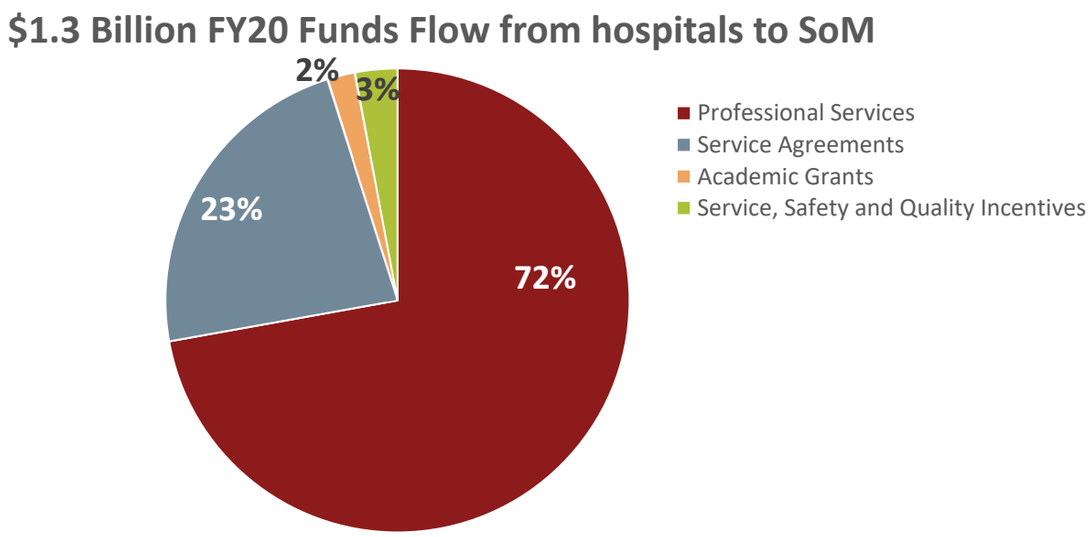
Approx. $1.3 billion in Funds Flow from hospitals to SoM in FY 2020

Key Components

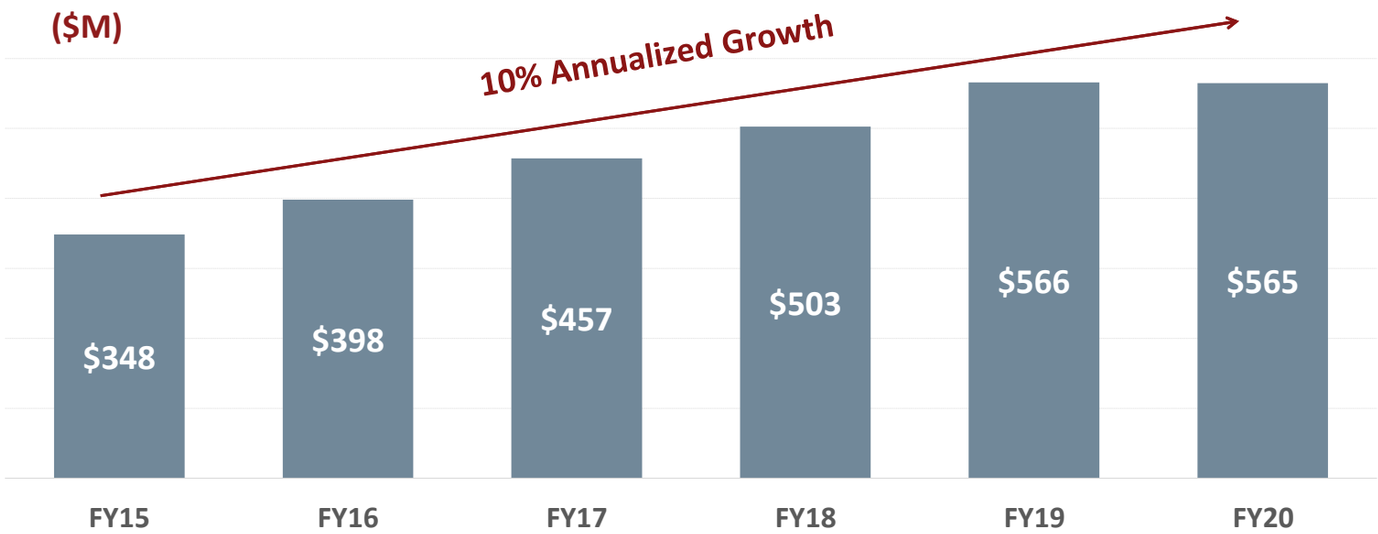
Professional Services (Tier 1)	$908M	Service Agreements (Tier 2)	$289M	Academic Grants (Tier 3)	$24M	Service, Safety and Quality Incentives	
• wRVU Payment	$565M	• Essential Services	$90M	• Fixed Grant	$24M	• Physician Incentives[1]	$37M
• Physician Benefits Reimbursement	$141M	• COVID Compact	$41M	• Variable Grant	$0M		
• Department Overhead Reimbursement	$118M	• Gen. Med. Disciplines	$24M				
• University Cost Recovery	$52M	• Medical Direction	$37M				
• Cash Services and Other Revenue	$16M	• Program Development	$16M				
• Graduate Medical Education Direction	$16M	• Purchased Svs./Other	$81M				

1. Physician incentives are part of Tier 1 payments, but displayed separately in this chart.



wRVU Payment is one of the biggest components of Healthcare Services Revenue

Payments for physician clinical work effort and professional services rendered by SoM faculty, clinician educators, and other professionals



- RVU = largest component of Tier 1 payments
- Calculated as volume of clinical activity x survey rate
- Survey rate is based on 80th percentile of respective medical group compensation surveys
- Departments will use at least 75 percent of the incremental wRVU payments above the 50th percentile MGMA rate for clinical faculty compensation.

Governance of the agreement managed by a funds flow work group

Funds Flow Work Group

Advisory body to the Dean of SoM and the CEO of SHC

Responsibilities:

- **Administration** of the professional services payment system
- **Make recommendations** regarding calculation methodology, specialty assignments, GME, Benefits, Departmental Clinical Expenses, Service Agreements, Standards regarding Patient Service, Safety, and Quality, the General Medicine Agreement, significant reductions in specialty RVU rates, etc.
- **Defining and tracking** physician incentives

Membership:

- Equal number of members from SHC and the SoM.
- Appointed respectively by the CEO of SHC and the Dean of the SoM.

Milestones

If any **one or more of the below milestones are reached**, the SoM Dean and the SHC CEO will ask the Funds Flow Work Group to recommend necessary changes to the current funds flow agreement.

1.	2-Yr %Δ in Total SHC Net Revenues	<	2-Yr %Δ in Total Funds Flow Payments
2.	2-Yr %Δ in SHC Operating EBIDA	<	2-Yr %Δ in Total Funds Flow Payments
3.	2-Yr %Δ in SoM Consolidated Net Revenues	≤	-2%
4.	2-Yr %Δ in Adult Clinical Funds Flow Payments*	<	0%

*Include only payments from professional services and service agreements.

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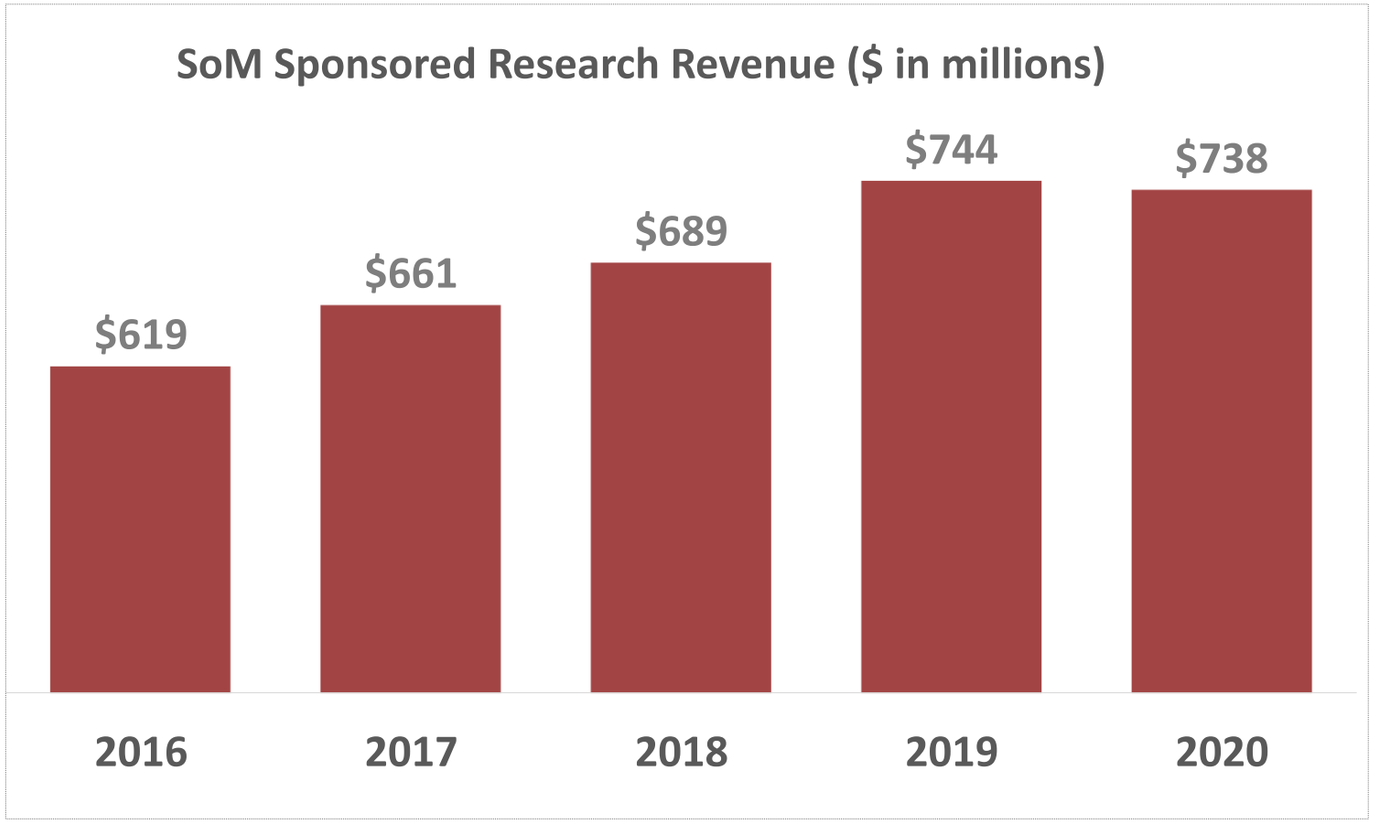
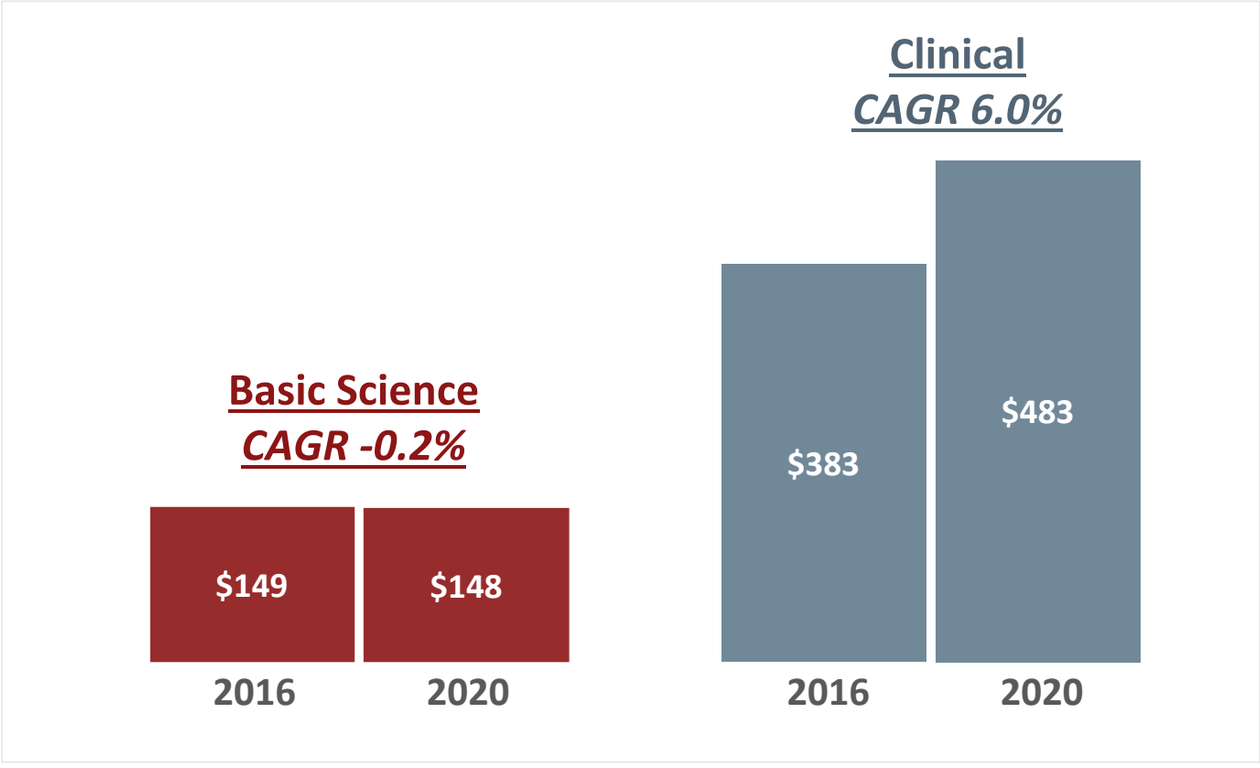
Research revenue at $738 million for 2020, annualized growth of 4.5% from 2020



- SoM contributes to **66%** of Sponsored research revenue for the University
- Research revenue is the **second largest driver** of revenue for the school after healthcare

Sponsored research has increased for clinical research, up 6% annually since 2016



Note: Institutes and centers not included

- Research growth driven by **expansion of translational and clinical research** efforts

1,098 Principal Investigator eligible faculty contributed to sponsored research for 2020

Research	Time Frame			CAGR or Δ*
	2016	Trend	2020	
PI-Eligible (professoriate) faculty	1,017		1,098	1.9%
Percent funded	72%		76%	* 0.8%
Median expenditure per funded faculty [$K]	$ 393		$ 472	4.7%
Percent of all sponsored research at Stanford	63.8%		66.3%	* 0.7%
Intellectual property net royalties received [$M]	$ 19		$ 6	-25.9%
Inventions disclosed	309		392	6.1%
Best research medical schools rank	2		4	-2 Δ

Grey shading denotes preliminary 2020 data

- SoM contributes to **66% of Stanford University's** total research
- Stanford medical school **ranked 4th** among peers for best research medical schools

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Research expenditures continues to grow at a strong 3.7% CAGR for 2016-2020

Research	Time Frame			CAGR or Δ*
	2016	Trend	2020	
Expenditures [direct costs, $M]	$ 451		$ 522	**3.7%**
Percent from federal sponsors	68.0%		68.1%	* **0.0%**
Proposals [count]	2,386		3,090	**6.7%**
Proposals [$M]	$ 3,082		$ 3,536	**3.5%**
Awards [count]	923		1,062	**3.6%**
Awards [$M]	$ 692		$ 853	**5.4%**
Percent from National Institutes of Health (NIH)	76.0%		72.4%	* **-0.7%**
NIH rank (all medical schools, excluding ARRA)	4		5	**-1** Δ
Market share	3.1%		3.1%	* **0.0%**

Values in green font: > 5% **beneficial** change (increase or decrease).

- 3,090 proposals submitted translated to **1,062 awards totaling $853 million** in research grants
- **72%** of the awards are from **NIH**
- **Stanford ranked #5 in NIH grants** with a market share of **3.1%** for 2020 among peer group

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SoM offers a wide array of educational and training programs

Degree Programs

Undergraduate: Opportunity for the University undergraduate students to take medical school courses

- Approximately 39% of medical school's courses have undergraduate enrollment

Medical Education MD: Flexible MD curriculum with dual degree opportunities

PhD Program

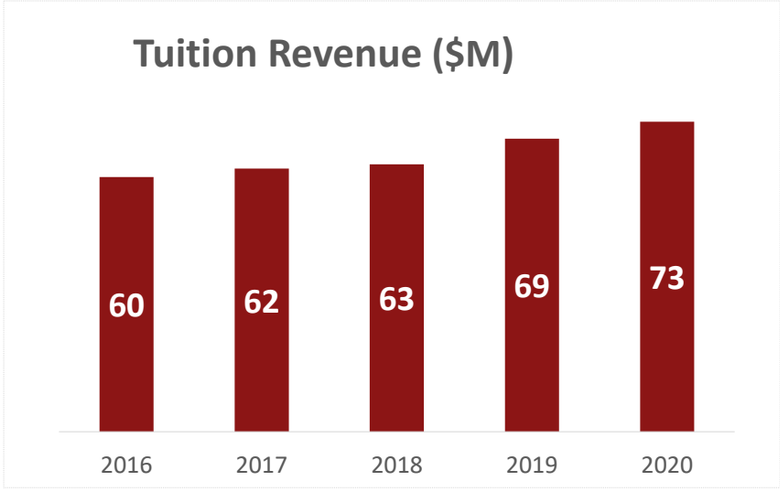
Master of Science:

- Medicine, Human Genetics & Genetic Counseling, Health services research, Laboratory Animal Science etc.
- Physicians Assistant studies, a 30-month program, began in 2018
- MS in Clinical Informatics Management began this year

Professional Training

Residents and Clinical Fellows

Postdoctoral Research Scholars



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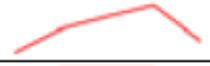
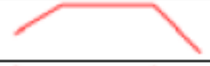
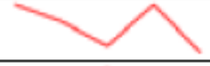
Medical Education MD program overview

Education	Time Frame			CAGR or Δ*
	2016	Trend	2020	
Medical Education (MD)				
Enrollment (entering class)	93		90	**-0.8%**
Percent women	50.5%		56.7%	* **1.2%**
Percent under-represented minorities (URM)	24.7%		37.8%	* **2.6%**
GPA [average]	3.80		3.81	**0.1%**
MCAT Score [average]	518		517	**0.0%**
Applicants (entering class)	7,512		6,800	**-2.5%**
Acceptance rate	2.3%		2.3%	* **0.0%**
Percent accepted who matriculated (i.e., yield)	52.8%		58.4%	* **1.1%**

90 students enrolled annually into the program with strong acceptance rate of **2.3%**

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Graduate medical education overview

Education	Time Frame			CAGR or Δ*
	2016	Trend	2020	
Graduate Education (PhD): Biosciences Programs (SoM only)				
Enrollment (entering class)	123		112	**-2.3%**
Percent women	45.5%		54.5%	* **1.8%**
Percent under-represented minorities (URM)	21.1%		22.3%	* **0.2%**
GPA [average]	3.70		3.70	**0.0%**
Applicants (entering class)	1,960		3,021	**11.4%**
Acceptance rate	10.3%		7.2%	* **-0.6%**
Percent accepted who matriculated (i.e., yield)	61.2%		51.4%	* **-2.0%**
Total Graduate Students (MS & PhD)	1,038		1,199	**3.7%**

- **112 students** enrolled for PhD program in 2020
- Total graduate students including MS is 1,199

Graduate medical education overview

Master of Science Programs

Diverse specialization offering via MS program, **256** students enrolled in MS program in 2020

Biomedical Informatics

Community Health and Prevention Research

Epidemiology

Health Policy

Human Genetics & Genetic Counseling

Laboratory Animal Science

Medicine

Physician Assistant Studies

Clinical Informatics Management

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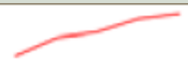
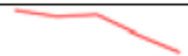
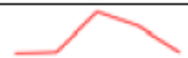
Professional training overview

Education	Time Frame			CAGR or Δ*
	2016	Trend	2020	
Residents & Clinical Fellows	1,161		1,386	**4.5%**
Postdoctoral Training				
Postdoctoral Research Scholars	1,255		1,530	**5.1%**
Percent women	46.0%		48.8%	* **0.6%**
Percent in basic science departments	33.3%		27.5%	* **-1.2%**
Percent in clinical science departments	58.7%		64.6%	* **1.2%**
Percent in institutes and programs	7.9%		7.9%	* **0.0%**
Percent of all postdocs at Stanford	61.2%		65.8%	* **0.9%**
Years at Stanford [average]	2.1		2.3	**2.2%**

Values in green font: > 5% **beneficial** change (increase or decrease).

1,386 Residents and Clinical Fellows in 2020, a **4.5% growth** from 2016

Stanford MEDICINE

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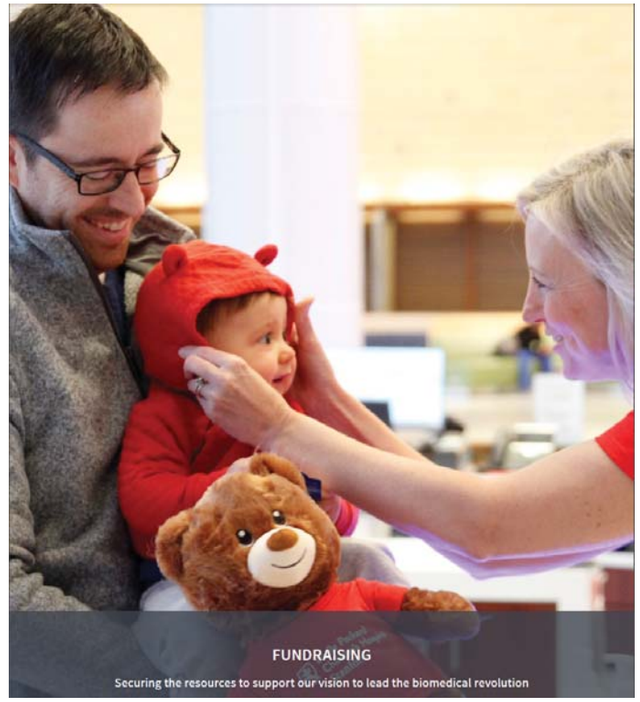
Stanford MEDICINE

$485 million in funds raised in 2020 by the development organization

Development	Time Frame			
	2016	Trend	2020	CAGR
Cash & cash transfers [$M]	$ 389		$ 485	5.7%
New activity & new activity transfers [$M]	$ 511		$ 430	**-4.2%**
Donors [#]	28,175		23,980	**-4.0%**



- Fundraising at Stanford Medicine done **via two organizations**:
  - Medical Center Development **(MCD)** & Lucile Packard Foundation for Children's Health **(LPFCH)**
  - MCD has been **surpassing its fundraising goals** for the past ten years

- UCSF is the only hospital among peer set that **raises more funds** than Stanford[1]

[1] As of 2019.

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SoM overcame significant financial challenges in FY20

(In $millions)	FY19 Actuals	FY20 Actuals	Change (%) FY19 to FY20
Revenue			
Tuition and Application Fees	69	74	*7%*
Sponsored Research	744	738	*(1%)*
Healthcare Services	1,265	1,303	*3%*
Gift Revenue	138	179	*30%*
Endowment Income Allocated	187	195	*4%*
Investment Income	70	73	*5%*
Other External Income (Patent)	41	36	*(12%)*
Internal Income (ISC and Comm Fringe)	91	90	*(1%)*
General Funds and Internal Transfers	195	183	*(6%)*
Total Revenue	**2,800**	**2,872**	***3%***
Expenses			
Salaries, Bonuses, and Benefits	1,590	1,712	*8%*
Non Compensation	909	907	*(0%)*
University Cost Recovery	142	150	*5%*
Total Expenses	**2,642**	**2,768**	***5%***
Surplus/(Deficit)	**158**	**104**	***(34%)***
Transfer to/from Capital and Other Assets	**(27)**	**27**	*(203%)*
Net Change in Current Funds	**131**	**131**	***0%***

- FY20 Net Surplus came in on par with FY19, better than expected (+$131M).
- Targeted expense cuts and increased gifts contributed significantly to last year's bottom line.

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COVID had material financial impact in FY20, just not exactly the impact you would have expected…

	FY20 Budget	FY20 Actuals	FY20 Actuals - Budget	COVID Related Variance
Sponsored Research	765	738	*(26)*	*(18)*
Healthcare Services	1,322	1,303	*(19)*	*(31)*
Gift Revenue	151	179	*29*	*26*
Other Revenue	656	651	*(5)*	*(11)*
Revenues and Ops Transfrs	**2,895**	**2,872**	***(22)***	***(33)***
Compensation	1,730	1,712	*18*	*11*
Non Compensation	977	907	*70*	*67*
University Cost Recovery	150	150	*0*	*0*
Total Expenses	**2,857**	**2,768**	***88***	***77***
Operating Surplus	**38**	**104**	***66***	***44***
Asset Transfers	(8)	27	*35*	*25*
Net Surplus	**31**	**131**	***100***	***69***

COVID Financial Impact

Revenues

- $18M Sponsored Research
- $31M Healthcare Services
  - *-$22M SHC VAG,*
  - *-$9M lower funds flow revenue*

+ 26M Gifts

Expenses

+ $11M Comp: Hiring Pause
+ $67M Non Comp Discretionary
  +50M travel, consulting cuts etc.

Transfers

+ $20M: no transfers to quasi
+ $5M: COVID-related gifts

Net surplus improved by $69M vs. budget as result of Covid-19 impact.

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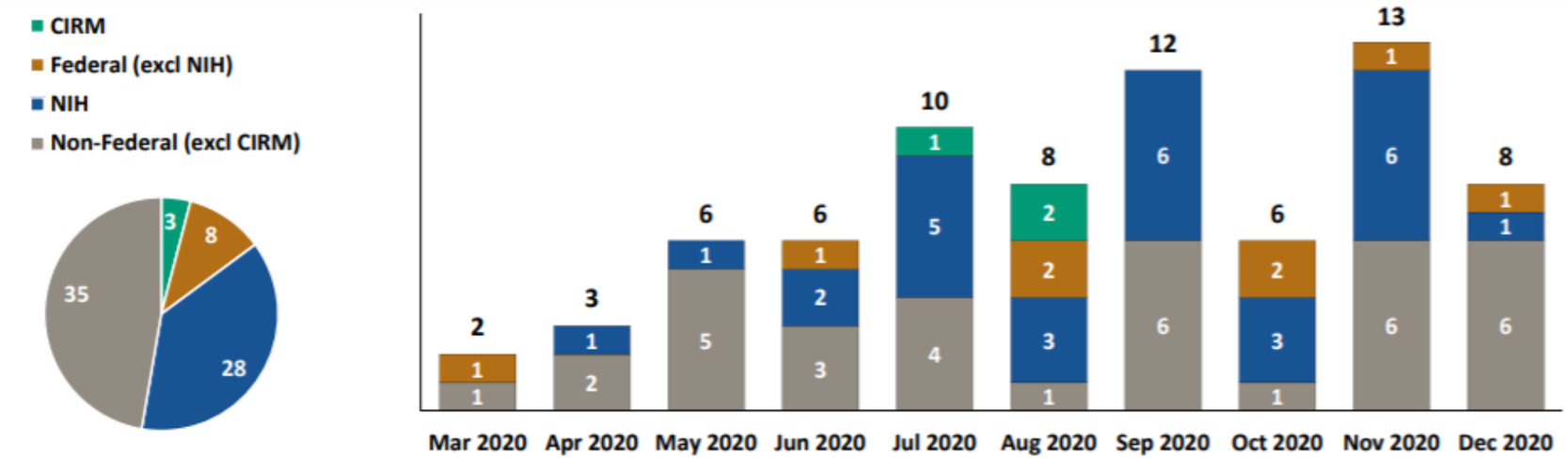
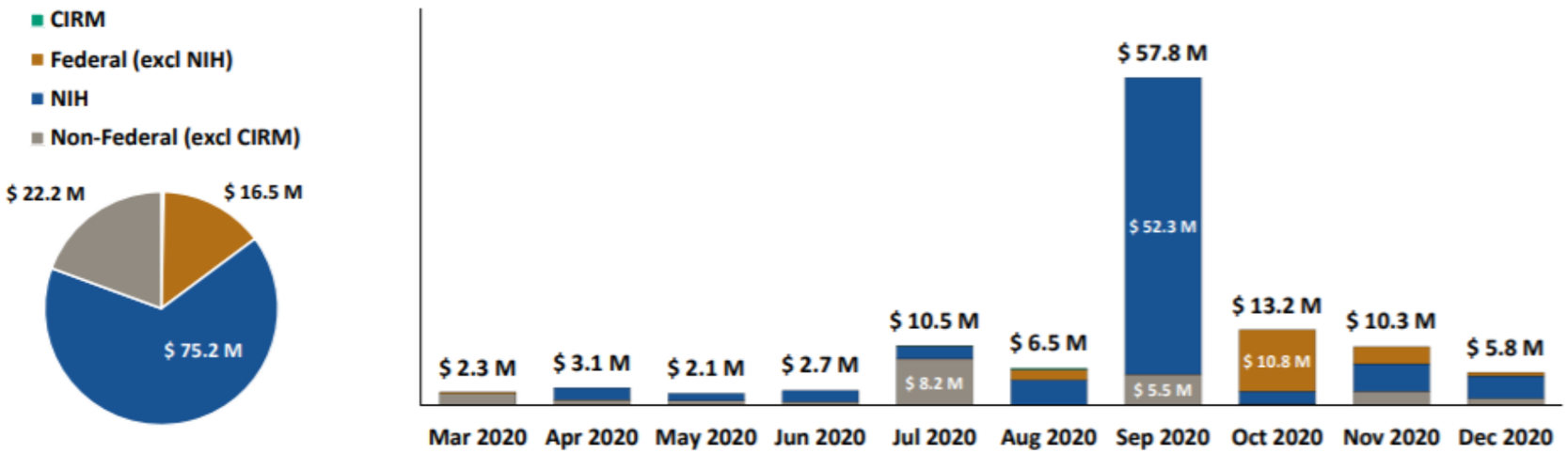
COVID-19 New Sponsored Awards

TOTAL COUNT = 74



TOTAL AMOUNT = $ 114.3 M



Includes the School of Medicine and the Department of Bioengineering. All transactions (excluding terminated) with Research Focus = "COVID-19" as specified on the Project Questions page.
Excludes Amendments, Industry-Sponsored Clinical Trials, Fellowships, Material Transfer Agreements, and University Research Agreements. Includes New, Renewals and Supplements. Data as of January 4, 2021.

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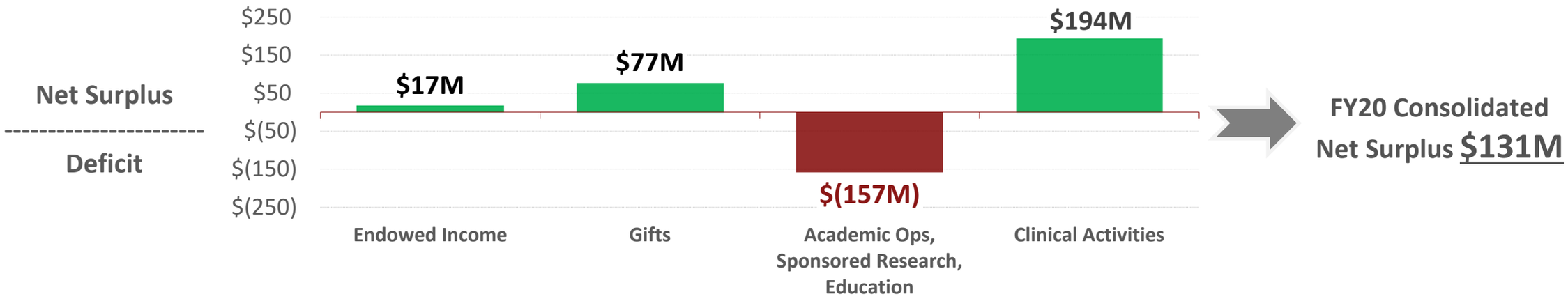
FY20 Surplus comes primarily from healthcare services



Clinical activities contributed $194M in surplus

- Clinical effort has grown substantially, driving higher healthcare services revenue
  - Clinical surplus was up 15% vs. FY19.
  - Healthcare services revenue grew 3% last year, vs. an average 8.5% annually since FY 2017.

Sponsored research does not contribute to a surplus, but revenue fell slightly (-0.8%) last year due to decline in Non-Federal grants and contracts

- Federal grants and contracts were up 2% due to strong NIH funding.
- Non-Federal grants and contracts were down 6.6% due to COVID.

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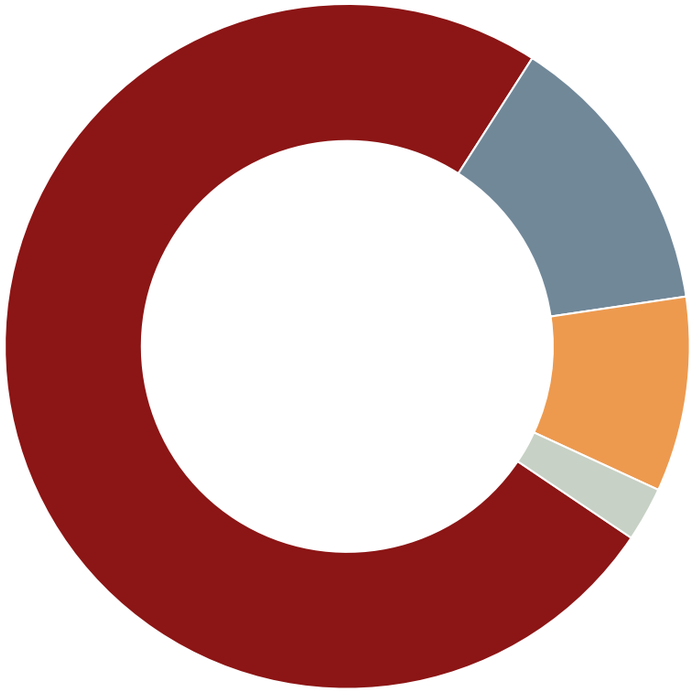
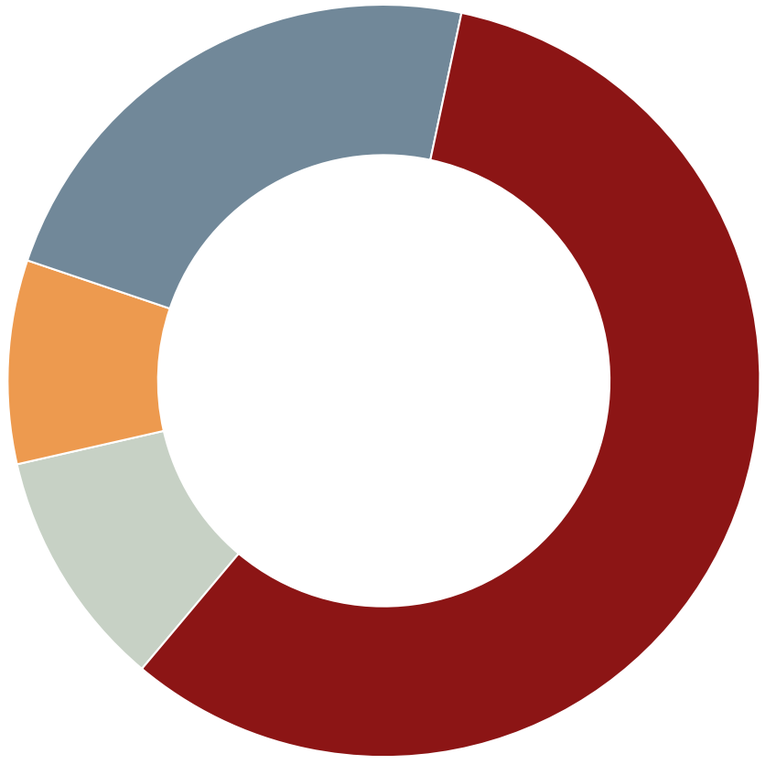
Unexpended fund balances and endowment market value reached $5.2B in FY 2020

Fund Balances
$1.6 Billion



Fund Balances		Endowment Market Value
14%	Dean	23%
9%	Institutes, Centers & Programs	9%
3%	Student Aid/ Student Program Support	10%
75%	Departments	58%

Endowment Market Value
$3.6 Billion



Note: Professorships are included in the departments using the awards

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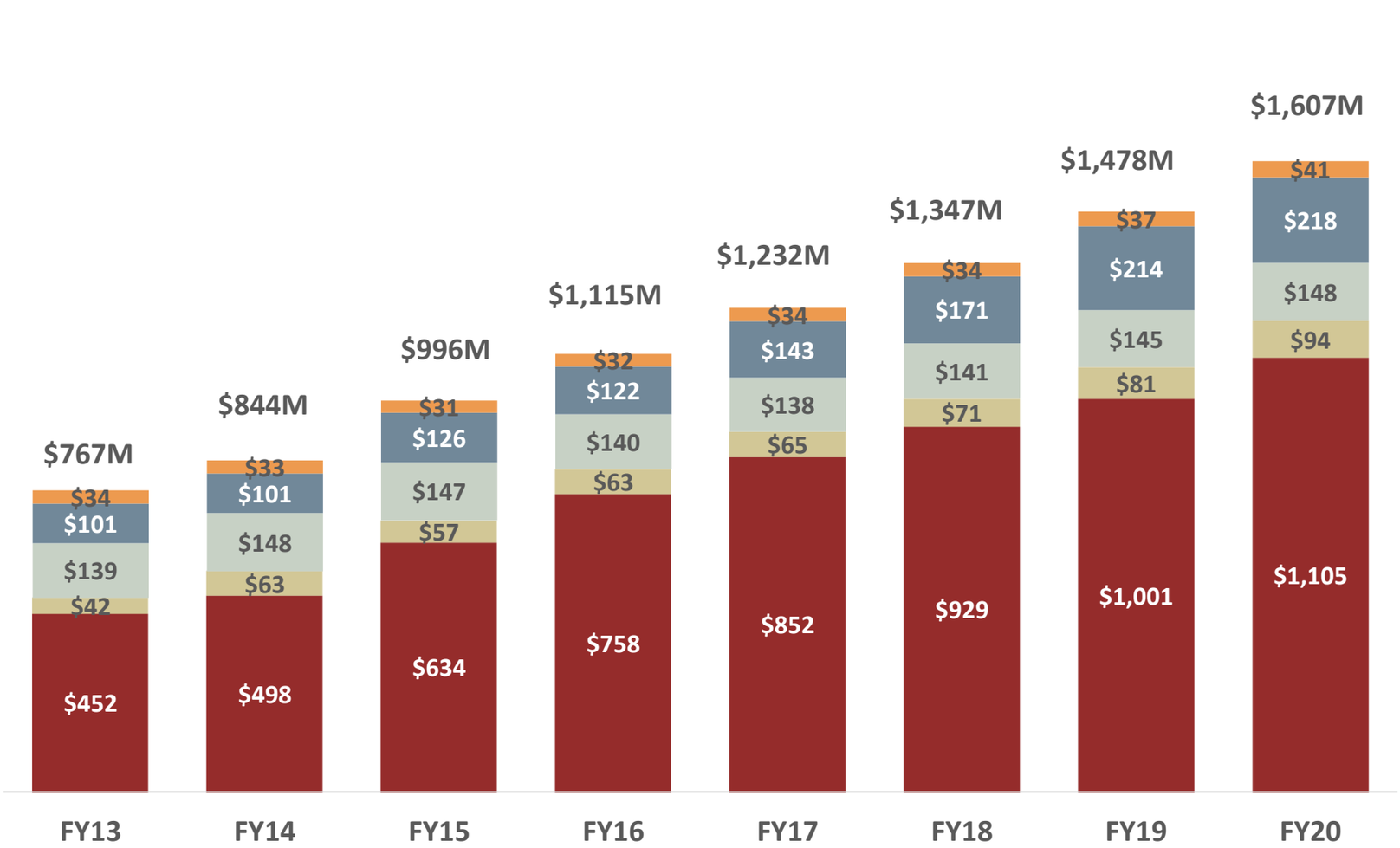
FY20 SoM consolidated unspent fund balances continue to grow



CAGR (FY13-FY20)

Student Aid/ Student Program	2.8%
Dean's Office	11.7%
Institutes, Centers & Programs	0.9%
Centrally Held Dept. Funds	12.2%
Academic Departments	13.6%

Academic departments' expendable balances include 1% Dean's tax rebate accrued in FY19 and distributed in FY20.

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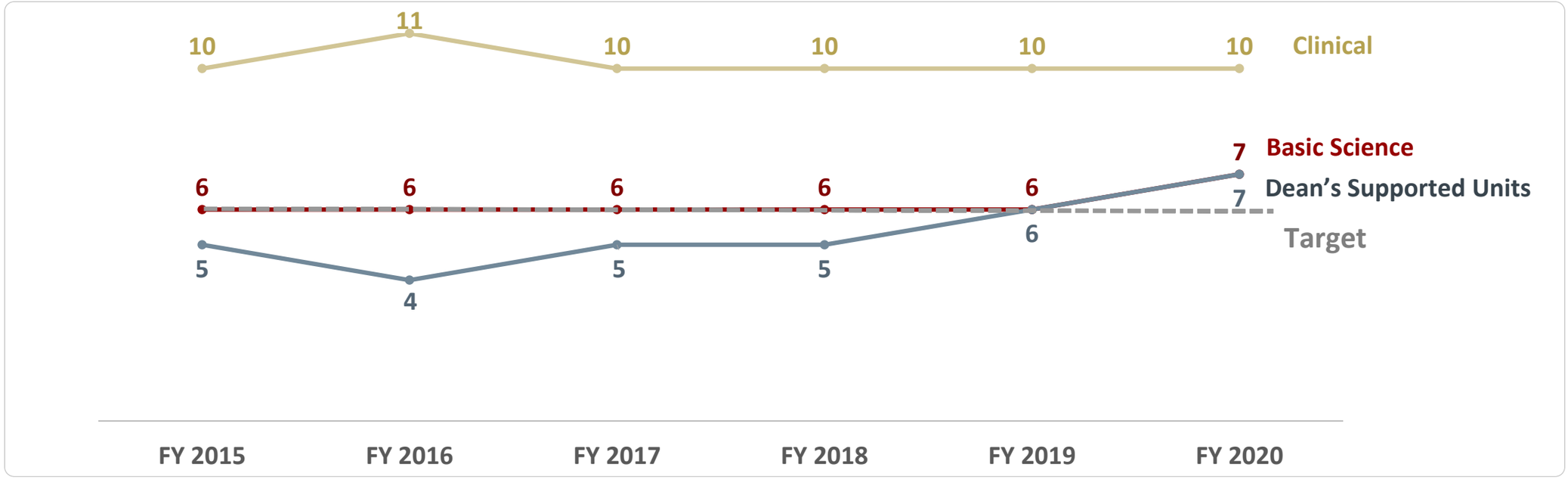
Months Cash on Hand Trend

Months Cash on Hand = (**Expendable + Quasi** / **Annual Expenditures**) × **12**

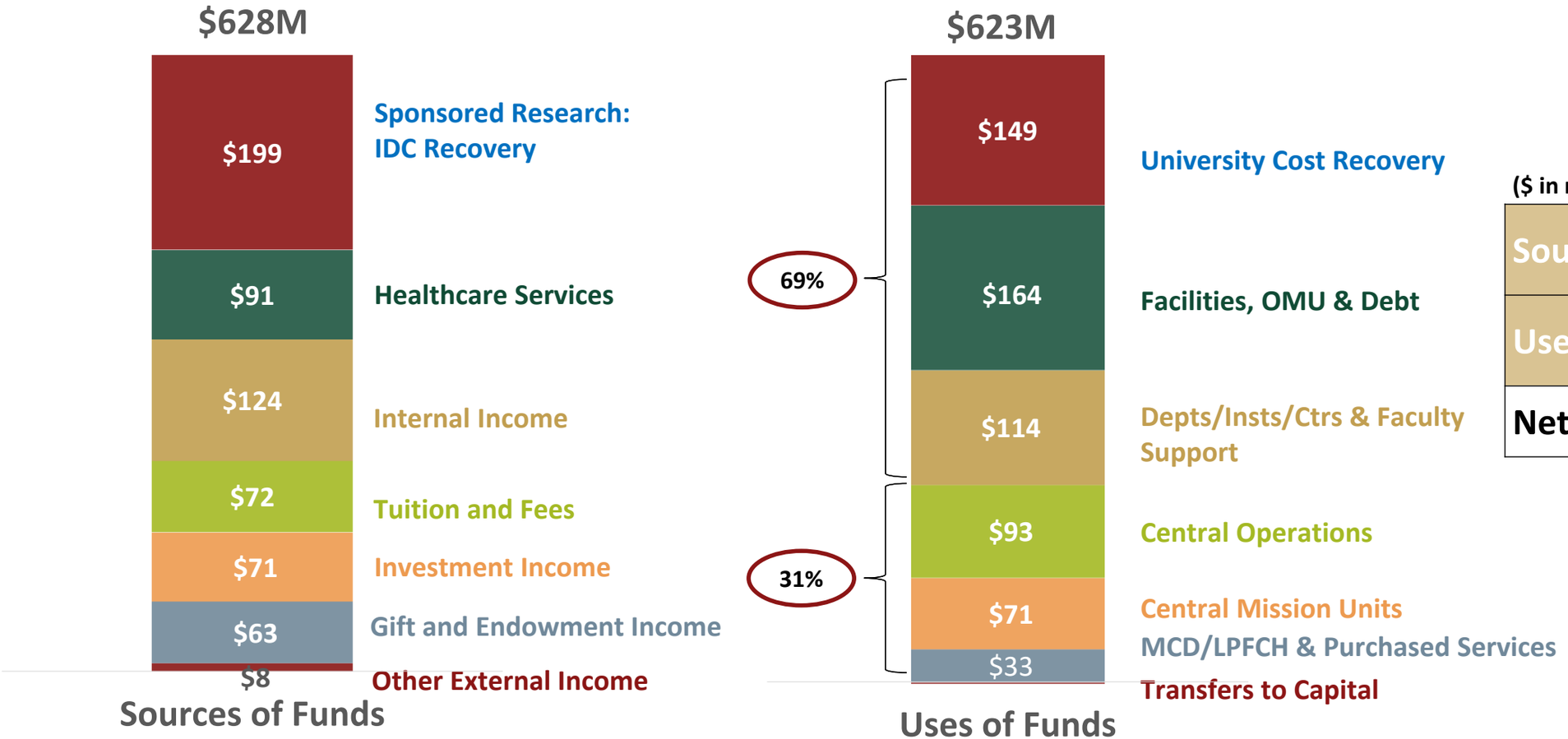
Quasi includes all department elected transfers to endowment



Note: Dean's supported units includes capital projects, university assessment & departments with 6 months target reserve shortfall

Dean's office resulted with a $4.4M surplus for FY 2020

FY 2020 Actuals ($ in millions)



($ in millions)

Sources of Funds	$627.8
Use of Funds	$623.4
Net Surplus	**$4.4**

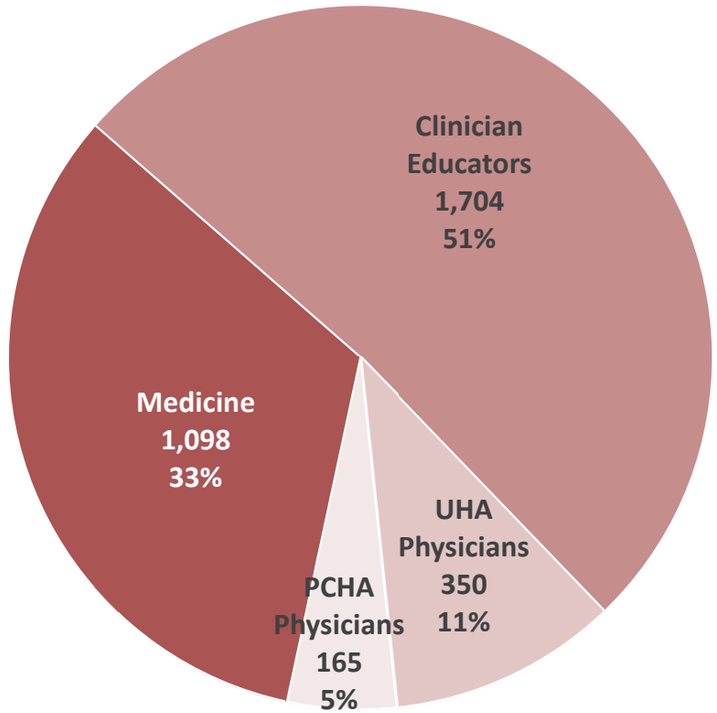
SoM seeks to recruit and retain outstanding faculty across the spectrum of biomedical disciplines

SoM has continued to achieve preeminence:

- **One of the highest NIH funding levels per PI** in the country ($933K)
- Membership of faculty in prestigious **National Academy of Sciences, Medicine**
- Howard Hughes Medical Institute Investigators

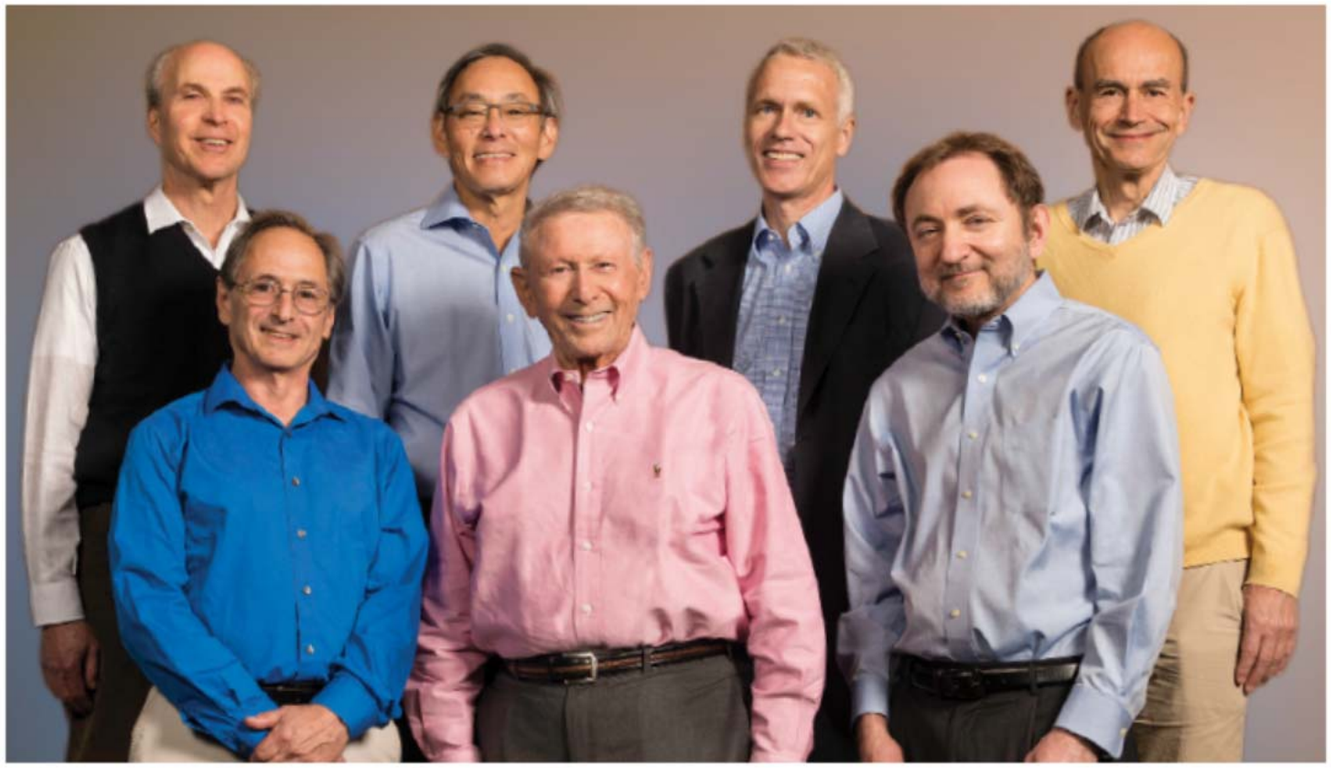
SoM faculty composed of a mix of **excellent clinicians, clinician educators and clinician researchers**

Stanford Medicine Faculty and Physicians
FY20 Total = 3,317



PCHA and UHA HC as of FY19.

Our preeminence is amplified by our outstanding faculty that includes seven nobel laureates



Front row, from left: Michael Levitt, PhD; Paul Berg, PhD; Andrew Fire, PhD
Back row, from left: Roger Kornberg, PhD; Steven Chu, PhD; Brian Kobilka, MD; Thomas Südhof, MD

	Nobel Prize In	Year
Michael Levitt, PhD	Chemistry	2013
Thomas Sudhof, MD	Physiology or Medicine	2013
Brian Kobilka, MD	Chemistry	2012
Andrew Fire, PhD	Physiology or Medicine	2007
Roger Kornberg, PhD	Chemistry	2006
Steven Chu, PhD	Physics	1997
Paul Berg	Chemistry	1980

(1) Source: Association of American Medical Colleges

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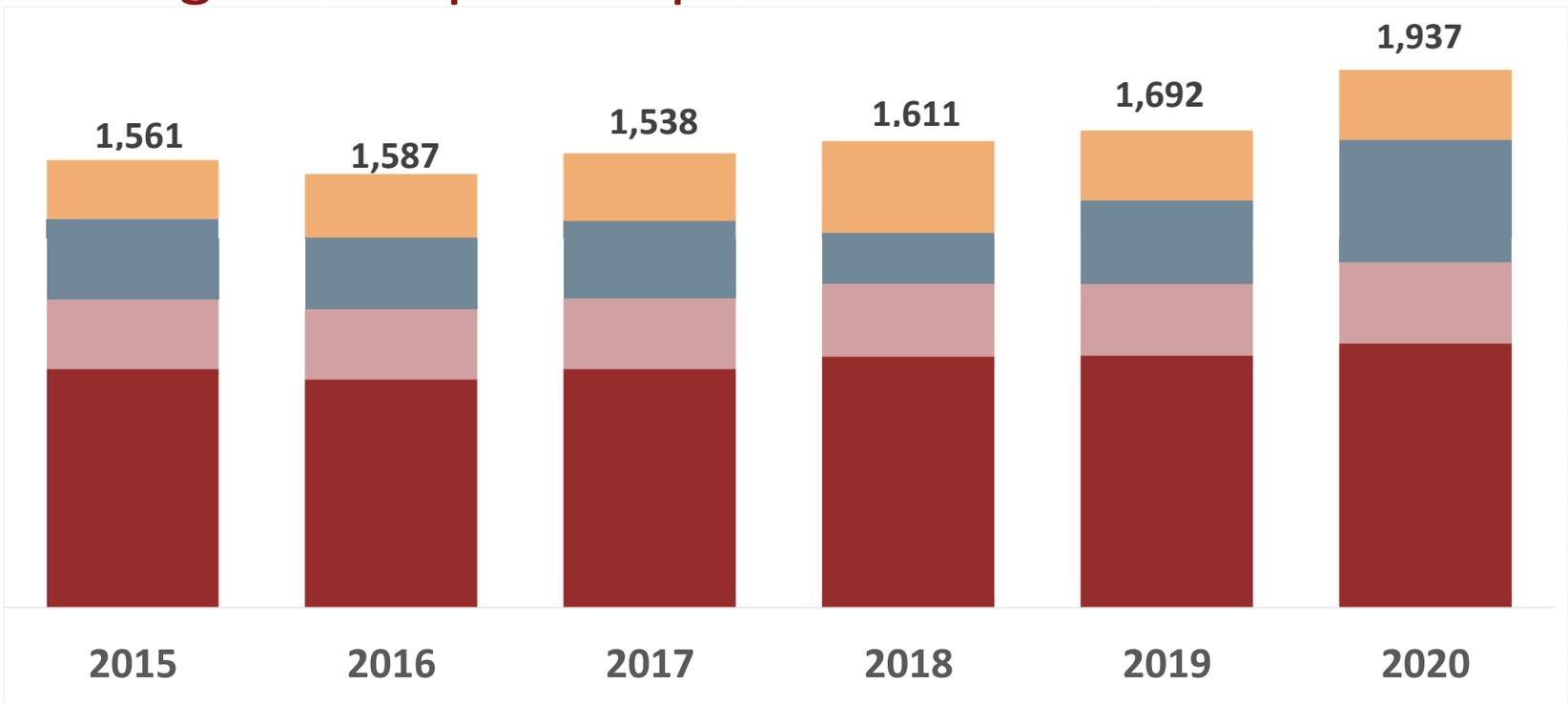
SoM on and off-campus footprint translates to about 1.9 million net assignable sq.ft. of space in 2020



- **Gross Square Foot (GSF)** is all the areas on all floors of a building including walkways, common areas, etc.
- **Net Assignable Square Foot (NASF)** is the sum of all areas on all floors of a building assigned to, or available for assignment to programmatic purposes

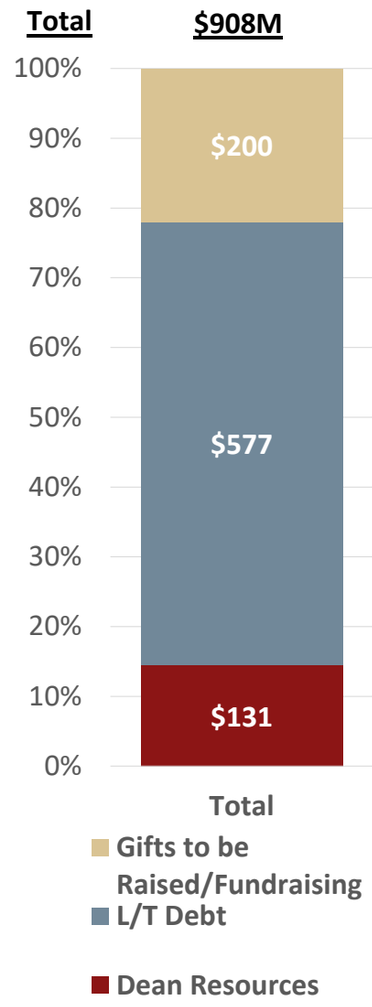
Stanford MEDICINE

Capital plan requires substantial resources over the next five years

Major Capital Projects FY21-FY30 ($M)	Occupancy / Demolition	Total Capital
3172 Porter Drive TI Improvements	2022	40
3174 Porter Drive TI Improvements	2022	42
3176 Porter Drive TI Improvements[1]	2022	41
LKSC Renovation Phase II	2023	10
1215 Project: Moving/Reno/Demos/Construction	2022-2025	346
BAGEL Decommission / Demo	2025-2030	51
Grant Tower New Building	2030	352
Other *(Renovation, Incremental)*	2021-2030	27
Total		**$908M**

Funding for Service Center Equip., RSP Projects, and Estimates for Project not identified are excluded.

[1] Slide created based on the 2/8/21 capital plan and has not been updated to reflected the replacement of 3176 PD with 3170 PD.



I. Our Place in the University and Partnership with Hospitals

II. Medical School Landscape

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V. Other Considerations – Dean's Tax, ISC, IDC, and CFF

VI. Faculty Lifecycle

VII. Discussion

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Funds to support the missions

Indirect Cost Recovery

- General & Administrative
- Depreciation
- Interest Expense
- Operations, Mtc. & Utilities
- Library

Infrastructure Cost

- Admin Support
- Accounting
- Maintenance
- Utilities
- Facilities Operations
- Etc.

- School wide Strategic Initiatives
- Fund Capital Projects

Dean's Assessment

- Capital Projects
- Renovations/Improvements

Capital Facilities Fund

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Indirect Costs – Definition

Direct Costs

Direct Costs are costs to conduct research

For example: Salaries & Wages, Fringe Benefits, Materials, Equipment, etc.

Indirect Costs

Indirect Costs or Facilities & Admin **(F&A)** Costs are general costs incurred by University, Schools, and Departments that are **not specific** to a research project, but provide a foundation that **supports the research mission**

Facilities – Depreciation, Interest, OMU, Library

Administrative – G&A, Sponsored Projects Admin., Dept. Admin., Student Services Admin.

100% To **Department** PI(1) and Researchers to conduct research

45% To **Departments** thru Revenue Sharing

55% To **SoM Dean's office**

30% To **University** via UCR(1)

Research Projects

Stanford MEDICINE School of Medicine

Research Sponsors

- NIH
- NSF
- CIRM(1)
- Corporations – Pharma companies
- Foundations –Gates, etc.

(1)PI is Principal Investigator, UCR is University Cost Recovery, RMG is Research Management Group, and VSC is Veterinary Service Center, CIRM is California Institute for Regenerative Medicine

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Indirect Cost – How is it determined

Facilities & Administrative (F&A) rate is the **mechanism for sponsors to reimburse** the University for a portion of Indirect Costs and is determined via a negotiation with the **"Office of Naval Research"**

Indirect Cost Pool $	• General & Administrative Costs (G&A) • Depreciation - *Building Equipment, Improvements* • Interest • Operations, Maintenance & Utilities (OMU) • Library
Modified Total Direct Research Costs $	• Salaries & Wages, Fringe Benefits, Materials & Equipment etc.

F&A Rate → $\frac{\textbf{Indirect Cost Pool \$}}{\textbf{Modified Total Direct Research Costs \$}}$ → **57.7%**

- Federal sponsors typically reimburse Stanford at negotiated rates **(57.7%)**
- Non-Federal sponsors *(Philanthropic Foundations, Corporations)* typically reimburse at much lower rates **(0% - 30%);**
- CIRM *(California Institute of Regenerative Medicine)* reimburses at 47.5%

Indirect Cost Recovery – FY20 Actuals

School of Medicine ($m)			
	Fed	**Non-Fed**	**Total**
Direct Costs	$360	$178	$538
Indirect Costs - Recovered	$146	$37	$183
Total	$506	$215	$721
Effective Rate (%)	*53%*	*25%*	*43%*

66% of Stanford University's[1] Research Revenue

- *Current Federal IDC recovery rate is **57.7%**, but actual IDC collected translates to an effective rate of 53%*
- *Non-Federal IDC collected at a much lower effective rate of 25%*

(1) Excludes SLAC research revenue

Infrastructure Costs – Definition

Philanthropic Dollars

Donor Intent Costs

Expenses that are **directly associated** with the **donor intended** activity and external revenues

- Salaries & Wages, Fringe Benefits, Materials, Equipment, etc.
- Faculty salary through Endowed professorship
- Student aid

Infrastructure Costs

Infrastructure Costs are general costs that provide a foundation to execute **donors' intent** to further the school's research and education mission

- Rent, Utilities, Maintenance of Facilities
- Administrative support, HR, Finance, etc.

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Infrastructure Costs – How are they assessed[1]

Restricted Expendable Gifts	Restricted Endowment Income	Sponsored funds (if F&A rate = 0%)	Designated External Revenue
8%	*8%*	*8%*	*13%*
• Collected at the time the **funds are expended** • All expenditure types are subject to charge • Building gifts are excluded	• Collected at the time the **funds are expended** • Student aid, Professorship salaries are excluded	• Collected at the time the **funds are expended** • Awards with F&A rate higher than *"0%"* are charged the awarded IDC rates	• Collected at the time the **revenue is received** from external sources • Patents is a good example of external income

If the donor is **unable to contribute** towards Infrastructure costs, the department contributes in-lieu of the donor

(1) See Admin Guide 3.3.1 Infrastructure Charges

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Infrastructure Costs – FY20 Actuals

SoM – Expendable Gifts

Gifts Expended **$151M**

↓

ISC Collected **$10M**

Effective Rate 6.4%

Gift Revenue **$179M**

↓

UCR Paid to University **($14M)**

UCR Rate 7.6%

Deficit to Dean's Office ($4M)

SoM – Endowment Income

Endowment Inc. Expended **$113M**

↓

ISC Collected **$3M**

Effective Rate 2.9%

Endowment Payout **$195M**

↓

UCR Paid to University **($7M)**

UCR Rate 3.7%

Deficit to Dean's Office ($4M)

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Capital Facilities Fund – Definition & Background

Capital Facilities Fund

- The funds earmarked for **crucial capital and infrastructure projects** by the school is called **"Capital Facilities Fund (CFF)"**
- Departments contribute to CFF from unrestricted funds

CFF Background

- In 2007, Board of Trustees **increased** the target Endowment payout rate to **5.5%**
- Schools and departments **to shift equivalent amount** of legitimate expenses **to Endowment funds** that was previously sourced to unrestricted funds
- **"Freed up"** unrestricted funds are to contribute to **CFF**

Incremental % of Endowment Payout $ = **CFF**

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Dean's assessment implemented in FY17 to supplement a portion of the growing financial burden from diminishing and highly variable revenues

Onset of "Perfect Storm" contributing to diminishing revenue for Dean

1. Expiration of the highly remunerative **"Herzenberg" Patent**
2. **Loss of variable academic grant** due to downturn in margins realized by adult and pediatric hospitals
3. Lower than expected income from expendable fund pool payout from a steep **reduction of interest revenue for merged endowment pool investments**

As a result, Clinical departments supported a 3% assessment be implemented. In FY19 the assessment was raised to 6%.

Current State

- **Patent revenues** continue to erode, no new patent projected to go live in the near horizon
- Hospital financial performance continues to be sensitive from incremental expenses resulting in **highly unreliable variable academic grants**
- Financial market performance likely to take a downturn in the near horizon, **resulting in a potential loss of as much as 10% of Dean's resources from reduced or no EFP payout**

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I. Our Place in the University and Partnership with Hospitals

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There are three primary components of faculty compensation

Compensation plans serve many purposes:

- **Reward and retain** high performers
- **Attract** new talent
- **Incentivize** certain activities and behaviors while discouraging others

"An effective compensation plan must meet the basic needs of the faculty as well as the basic needs of the department or institution" – Smithson & Koster, Vizient[1]

X
Base Salary

University/School ***"maximum"*** for tenured or continued appointment

Y
Variable Salary

"Market rate" for an academic in a specialty or discipline

Z
Incentives

Compensation plans define how to earn these ***incentives***

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Incentive models are evolving generally to reward more than clinical productivity

- **Clinical productivity**
  clinical services volume, wRVUs, revenue generation
- **Service-driven Productivity**
  contributions of overall team; "good citizen" models
- **Multi-factor productivity**
  contribution to multiple missions: Education, Research, and Clinical

- **Quality and Value-based**
  Driven not only by clinical service productivity, but also factor in patient satisfaction, access metrics, safety, quality measures, quality rankings, cost savings for bundled services

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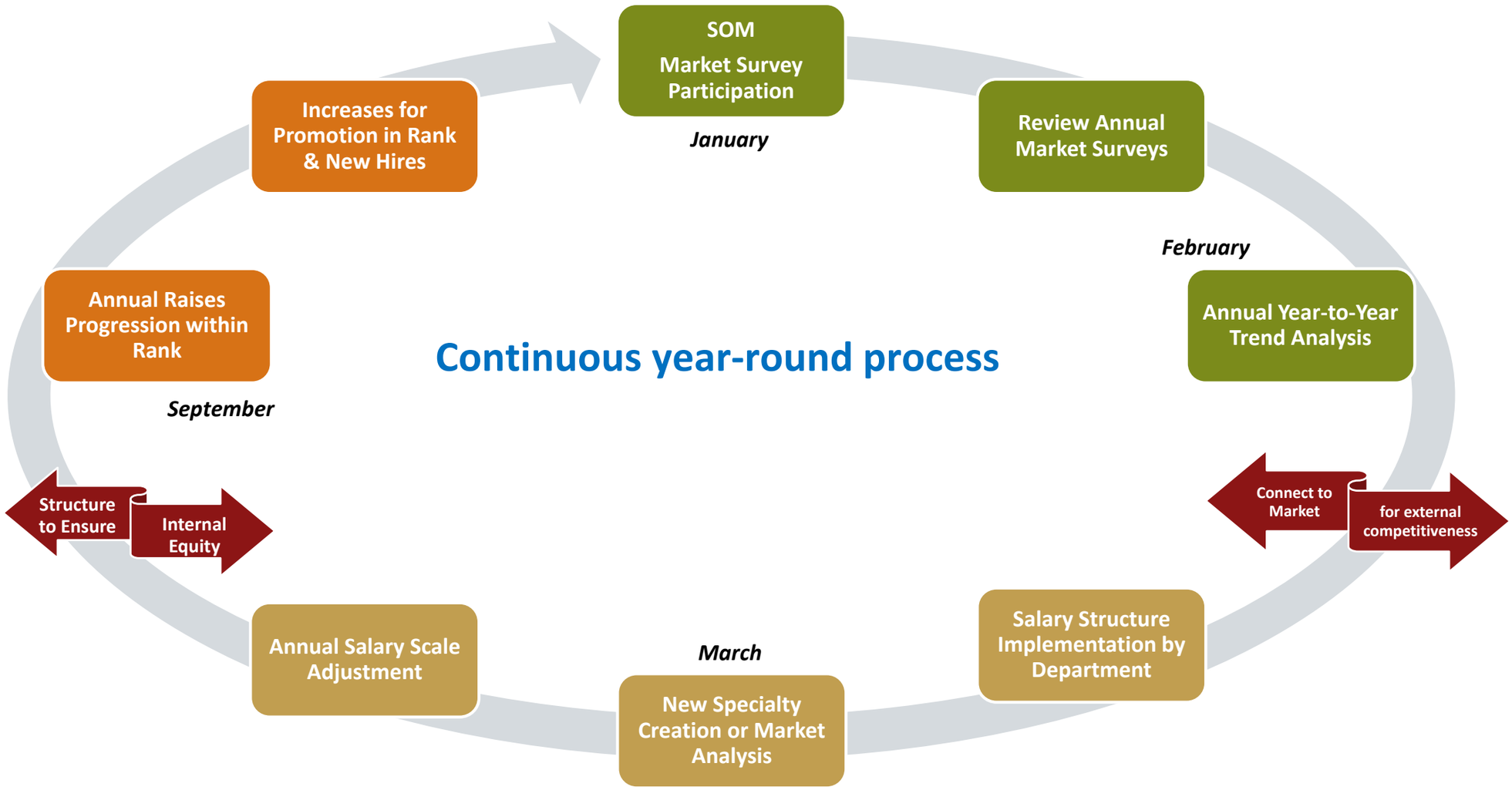
Faculty Compensation Cycle



Financial life cycle considerations for new faculty member

Recruitment

- Department **identifies need** for a new faculty
- Models **revenue and expense projections** for the potential recruit – "*identify space, impact to operating budget allocations and/or impact to SoM on Inter-Entity agreement with hospitals"*
- Forecast on-going support for **sponsored research shortfalls**
- Seek hospital backstop **for hospital staff or special equipment needs**
- Estimate **recruitment costs**
- Draft offer letter and **seek required approvals** for compensation, incentives, housing programs, relocation, start-up package etc.

Faculty Lifecycle

Career Progression

- Review **faculty's performance** against defined productive standards – "*calculate and pay applicable incentives"*
- Reflect impact on total operations in financial statements – *"Assess actuals to projections and understand variances"*
- Plan for annual salary increases, potential promotions, leadership roles and compensation, sabbaticals, etc.
  Address **VA parity pay and SU benefit cost** contribution issues
- Assess **fund raising opportunity and challenges**, stewardship requirements, and **potential employee relations issues and legal fees**
- Determine **funding commitments for new programs, evolving academic and research efforts** of the faculty member, and potential **need for bridge funding**

Retention/ Retirement

- Address **retention efforts, challenges, etc.**
- Plan for **end of career roles** and funding requirements – *FRIP, retirement, recalled Emeritus, etc.*

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Discussion

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Appendix

I. Glossary of Terms

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Glossary of Terms

Terms	Abbreviation / Contraction	Definition
Academic Grant Fixed - LPCH	LPCH AG Fixed	Grant from LPCH to support SoM's missions relevant to pediatric and obstetric programs. The fixed amount is $3.5M when LPCH's Income from Operations ranges between 0% to 3.99%. If Income from Operations is less than 0%, SoM is eligible for the fixed amount only if Days Cash on Hand > 174 Days.
Academic Grant Variable - LPCH	LPCH AG Var	Grant supplements Academic Grant Fixed. Determined by a progressive share of LPCH's Income from Operations exceeding the 4.0% operating margin threshold.
Academic Grant Fixed - SHC	SHC AG Fixed	Grant from SHC to support SoM's academic initiatives in advancing patient care, conducting fundamental and translational research, and educating future physicians and leaders in medicine and biomedical sciences. The fixed amount for FY17 is $16M, increasing annually by $1M per year.
Academic Grant Variable - SHC	SHC AG Var	Grant supplements Academic Grant Fixed. Determined by a progressive share of SHC's Income from Operations exceeding the 4.0% operating margin threshold.
RWC Stanford Central Admin Facility Costs		Previously Headcount Tax or Campus User Fee. Begin in FY19, SoM will be assessed a charge to support the space occupied by central university functions at RWC
Capital Facilities Fund	CFF	Previously Endowment Swap. A crucial source of funds for capital projects, established in June 2007 by increasing the target endowment payout rate from 5% to 5.5%. The increased payout released unrestricted funds, which are held in the CFF to support major facilities projects.
Converged Communications/ Technology Charge	Convg Comm or Comm Fringe	Currently at 3.0% and applies against all salary (except federal sponsored funding and service center PTAs). This rate pays SU ITS for desktop phone services, wired and wireless networking, and infrastructure/systems management, as well as a portion of centralized IRT desktop/field support costs.
Endowment Income Funds Pool	EIFP	This Pool holds prior years' unspent payout from true endowments but not from FFE. Invest 100% in cash vehicles.
Endowment Income Allocated		Annual revenue generated by SoM total endowment (invested reserves). Payout level as a percent of endowment principal is approved by the Board of Trustees for the following fiscal year.
Expendable Funds Pool	EFP	Stanford's working capital investment pool including all expendable funds (except EIFP) and plant funds. It is cross-invested in the Merged Pool and a portion to cash vehicles. Payout policy to SoM Dean's office limits payout range from 0% to 5.5%. President to backstop payout shortfall below a threshold if payout is less than 5.5%.
Formula Schools/Areas		Budget units whose allocations of general funds are predetermined by a formula agreed to by the provost and the unit. Principal formula units include the Graduate School of Business, the School of Medicine, and Continuing Studies/Summer Session.
General Funds	GF	Unrestricted funds that can be used for any university purpose. The largest sources are tuition and indirect cost recovery. University Cost Recovery is deducted from General Funds before transferring from the University to the School of Medicine.

Glossary of Terms (continued)

Terms	Abbreviation / Contraction	Definition
Gift Revenue		Financial transfer to a department, institute or the Dean's office made as a donation or bequest. Donors typically specify the purpose of gifts, which will determine whether the gifts are assigned to expendable, capital, or endowed purposes. Gift revenue shown in the consolidated financials/Dean's Statement is that which is assigned to expendable. Medical Center Development and Lucile Packard Foundation for Children's Health solicit and process gifts to the SoM.
Healthcare Services Revenue		Consolidated financials: Sum total of revenue streams primarily related to professional services rendered by SoM faculty, clinician educators, and other professionals. This includes wRVU payments, physician benefits and overhead reimbursements, essential and purchased services, program development, academic grants, and incentive payments. Additionally, includes research support, education support, university assessment reimbursement, and interentity rent. Dean's Statement: Includes revenue from SHC and LPCH academic grants, interentity rent, Lane Library, and PET CT Joint Venture.
Income from Operations		Excess of revenues over expenses as determined in accordance with Generally Accepted Accounting Principles (GAAP).
Indirect Cost Recovery	IDCR or IDC or F&A	Payments from sponsors to cover costs which are necessary to support research and other sponsored projects, but which cannot be readily assigned to individual projects. Also knowns as Facilities and Administrative (F&A) costs.
Internal Income		Consolidated Financials: Revenue from Infrastructure Charge (see below) and Converged Communications charges to departments to cover IT expense (see previous slide), as well as income from Service Centers. Dean's Statement: Revenue collected from departments via CFF and Dean's Assessment, Infrastructure Charge, Converged Communications, University President's Funding, Housing Loan Repayments, and University Post Doc Affairs Office Funding.
Infrastructure Charge	ISC	Charge on designated and restricted funds to support the cost of the University's infrastructure. External designated revenue is assessed at 13% at the time it is received. 8% is applied to restricted funds (gifts, endowment income, and sponsored project awards with 0% IDC rate) at the time the funds are expended or transferred. Professorships, student aid funds, and gifts for building projects are exempted.
Investment Income		Revenue from working capital investment pool, or Expendable Funds Pool (EFP, see previous slide).
Lucile Packard Foundation for Children's Health	LPFCH	SoM shares with LPCH to provide funding support to LPFCH's fundraising effort for the hospital and child health programs at Stanford.
Medical Center Development	MCD	Jointly funded by SoM and SHC, a fundraising group for the hospital and school.
Merged Pools	MP	Collection of monies which are merged together for investment purposes (i.e., endowment investment).

Glossary of Terms (continued)

Terms	Abbreviation / Contraction	Definition
Net Change in Current Funds		Typically referred to as the result of Consolidated SoM financials. Determined by subtracting total Expenses from total Revenues and Transfers and including all Transfers to/from Plant and Other Assets.
Net Surplus/(Deficit)		Typically referred to as the result of Dean's Statement. Determined by subtracting total Expenses from total Revenues after the deduction of University Cost Recovery and including all Transfers to Capital Projects.
Operating Margin	Op Margin	Ratio or percentage resulted from dividing Income from Operations by Operating Revenues.
Operations, Maintenance and Utilities	OMU	Dean's Statement: rent, maintenance, retrofit projects, utilities and housekeeping expense.
Other External Income		Consolidated Financials: Revenue from external sources such as patents and royalties, facility rentals, publications, conferences and special programs. Dean's Statement: Revenue from external sources such as Howard Hughes Medical Institute, patents, café and roof rental.
Purchased Services		Dean's Statement: Cost sharing with MCD and LPFCH, liability insurance, and legal services.
Quasi Investment	Quasi or FFE	Also referred to as Fund Functioning as Endowment. An expendable fund invest in the endowment Merged Pool. It can be unrestricted or restricted per donor terms. 7 year lock-up period. $1 million initial minimum. Greater of $5 million or 10% of the fund's market value annual withdrawal limit. Withdrawal approval from University CFO and Provost required. 90 to 270 days withdrawal notice required.
Revenue Sharing	Rev Share	Previously Operating Budget Allocation. Formula driven process to share a portion of IDCR and tuition revenues received back to the Departments for their research and teaching efforts. Additional components include $4,000 support per Faculty and a space charge for research space.
Sponsored Research Revenue		Consolidated Financials: Funding from different sponsors, including federal agencies, foundations and for-profit companies. Such funding agreements may be structured as grants, contracts, or cooperative agreements. The terms of the award and applicable regulations determine how the money may be spent. Dean's Statement: Indirect Cost Recovery (IDC) associated with SoM Sponsored Funding (see previous slide).
Stanford Research Computing Facility	SRCF	A data center located on SLAC's land that houses research computer servers and disk storage arrays. SoM contributes to its operating costs by sharing a percentage of SoM's IDCR.

Glossary of Terms (continued)

Terms	Abbreviation / Contraction	Definition
Strategic Initiatives		Dean's Statement: Expense related to Dean's support of initiatives such as off-campus apartments and faculty housing, Precision Health Solutions and Student Financial Aid.
Tuition and Application Fees		Quarterly payments for educational instruction and annual document fee, collected by Student Financial Services Office from registered SoM students. Includes undergraduate tuition attributable to teaching efforts of SoM faculty.
University Assessment Reimbursement (from SHC or LPCH)		Payments from hospitals to SoM an amount equal to a percentage of all funds transferred to SoM except for transfers that do not incur university assessments (e.g., transfers for endowment, housing loans, or capital construction). The percentage rate is currently fixed at 4.25%.
University Cost Recovery	UCR	Previously University Tax or Assessment. An annual assessment to SoM to support university general funded central services. Based on rates applied to six different types of revenue streams.
Vacancy Factor		Dean's Statement: Estimate/placeholder to represent expected payroll savings (expense offset) related to position vacancies between termination and hiring.