Duke University Management Center Structure:

Duke University

Duke University Academic campus

Provost areas
A&S
Law
Engineering
Grad Schools etc

Central areas
Athletics
Central finance
Human Resources
Etc.

School of Medicine
School of Nursing

Duke Medicine

Health System (separate non-profit)
PDC (for profit partnership)
Budget 2014 - 2015 "All Funds" Revenue ($M)

<table>
<thead>
<tr>
<th>Source</th>
<th>Medicine</th>
<th>A&amp;S</th>
<th>Fuqua</th>
<th>Pratt</th>
<th>Nicholas</th>
<th>Law</th>
<th>Nursing</th>
<th>Sanford</th>
<th>Divinity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support from SIP</td>
<td>4.0</td>
<td>3.9</td>
<td>0.2</td>
<td>3.6</td>
<td>0.4</td>
<td>1.8</td>
<td>0.2</td>
<td>1.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Auxiliary &amp; Other Revenue</td>
<td>30.5</td>
<td>0.6</td>
<td>3.8</td>
<td>0.4</td>
<td>0.1</td>
<td>0.4</td>
<td>-</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Endowment &amp; Invest Income</td>
<td>120.7</td>
<td>31.6</td>
<td>13.3</td>
<td>20.0</td>
<td>15.4</td>
<td>13.0</td>
<td>2.1</td>
<td>7.4</td>
<td>7.2</td>
</tr>
<tr>
<td>Contributions</td>
<td>36.2</td>
<td>22.4</td>
<td>5.0</td>
<td>3.5</td>
<td>2.4</td>
<td>3.3</td>
<td>2.5</td>
<td>1.3</td>
<td>9.4</td>
</tr>
<tr>
<td>PDC Transfers</td>
<td>43.2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Sponsored Direct</td>
<td>569.3</td>
<td>53.2</td>
<td>-</td>
<td>53.5</td>
<td>16.4</td>
<td>0.3</td>
<td>2.2</td>
<td>2.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Sponsored Indirect</td>
<td>140.3</td>
<td>19.7</td>
<td>12.5</td>
<td>16.3</td>
<td>3.9</td>
<td>0.1</td>
<td>2.2</td>
<td>2.2</td>
<td>0.2</td>
</tr>
<tr>
<td>Net Student Income</td>
<td>24.1</td>
<td>211.9</td>
<td>83.0</td>
<td>30.4</td>
<td>9.3</td>
<td>29.1</td>
<td>27.9</td>
<td>15.2</td>
<td>5.3</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>968.3</td>
<td>343.3</td>
<td>117.7</td>
<td>127.7</td>
<td>47.9</td>
<td>47.8</td>
<td>37.2</td>
<td>30.2</td>
<td>23.4</td>
</tr>
</tbody>
</table>

Net Student Income - Gross Tuition Less Student Aid
Endowment & Investment Income Includes Unassigned
Structure of Duke Medicine

Within Duke University

Duke University Health System
- Duke University Hospital
- Duke Raleigh Hospital
- Duke Regional Hospital
- Duke Primary Care
- Duke Home Care/Hospice
  Separate not-for-profit corporation

School of Medicine

School of Nursing

PDC
(SoM faculty clinicians)

Separate for-profit LLC
Basic Funds Flow

University
Central Budget

Central Budget

School of Medicine

Departmental

Allocated overhead

Allocated overhead

Allocated overhead

Allocated overhead

Health System

Purchased Services

~$40 mil

~$40 mil

~$40 mil

~$42 mil

~$28 Dean

~$7 clinical depts for GME

~$7 Chancellor

Academic support

Academic Transfer (to depts)

“5b transfer” ~$40 mil

PDC

Central

Departmental
SOM Financial Organizational Structure

A Simplified Diagram
School of Medicine Financial Structure
(major sources and uses of funds)- FY2015 Budget

**CURRENT FUNDS**

**Major Sources:**
- F&A recovery
- Tuition

**Uses of funds:**
- Overhead/admin
- Buildings
- Funding to departments
- Central reserves (includes Central Other operating):
  - DUHS quasi endowment
  - Central gifts

**Uses of funds:**
- Chair start-up (new recruits)
- New programs
- Renovations
- Cover Current Fund deficit

**OTHER OPERATING**

**Clinical Departments:**
- SOM funding
- PDC academic transfer
- DUHS support

**Basic Science and Centers:**
- SOM funding

**Uses of funds:**
- Operating and start-up
- Overhead
- Space

2014-15 All Funds Activity

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Clinical Departments</th>
<th>Basic Science and Centers</th>
</tr>
</thead>
<tbody>
<tr>
<td>($5.8 mil)</td>
<td></td>
<td>($11.5) mil</td>
<td>($0.5) mil</td>
</tr>
<tr>
<td>($10.4 mil)</td>
<td></td>
<td>($8.5) mil</td>
<td></td>
</tr>
<tr>
<td>$0.2 mil</td>
<td></td>
<td>($18.2) mil</td>
<td></td>
</tr>
<tr>
<td>($9.0 mil)</td>
<td></td>
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</tbody>
</table>
School of Medicine
All Funds Bottom-Line

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Budget</th>
<th>Actual</th>
</tr>
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<tbody>
<tr>
<td>FY07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY15 proj</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FY15 bud</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key Events:
- $90M Myozyme; $9M Hare gift; $8 mil stock/land sale; $9 mil add’l PDC transfer; $8 mil investment income
- $17 mil Kiser, $7 mil TDE gifts
- $9 mil gifts; $18M royalties
- FICA $36 mil (net)
School of Medicine Reserves, Endowment and Quasi Endowments (Market Value as of 3/31/14)  

$ millions

<table>
<thead>
<tr>
<th>Central School of Medicine</th>
<th>Reserves</th>
<th>Quasi</th>
<th>Endowment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean</td>
<td>88.7</td>
<td></td>
<td></td>
<td>88.7</td>
</tr>
<tr>
<td>DUHS Special Quasi Endowment</td>
<td>174.8</td>
<td></td>
<td></td>
<td>174.8</td>
</tr>
<tr>
<td>Chancellor directed</td>
<td>28.4</td>
<td>$14 mil/yr</td>
<td>24.4</td>
<td>52.8</td>
</tr>
<tr>
<td>Restricted Use</td>
<td>179.6</td>
<td>86.0</td>
<td>263.1</td>
<td>528.7</td>
</tr>
<tr>
<td>Facility renewal quasi endowments</td>
<td>159.4</td>
<td></td>
<td></td>
<td>159.4</td>
</tr>
<tr>
<td>Subtotal Central SOM</td>
<td>296.7</td>
<td>420.2</td>
<td>287.5</td>
<td>1,004.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Departments/Centers</th>
<th>Reserves</th>
<th>Quasi</th>
<th>Endowment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Science</td>
<td>24.4</td>
<td>9.3</td>
<td>27.7</td>
<td>61.4</td>
</tr>
<tr>
<td>Clinical</td>
<td>282.2</td>
<td>330.2</td>
<td>463.3</td>
<td>1,075.7</td>
</tr>
<tr>
<td>Centers/Institutes</td>
<td>132.9</td>
<td>33.1</td>
<td>92.1</td>
<td>258.1</td>
</tr>
<tr>
<td>Subtotal Department/Centers</td>
<td>439.5</td>
<td>372.6</td>
<td>583.1</td>
<td>1,395.2</td>
</tr>
</tbody>
</table>

Grand Total  

<table>
<thead>
<tr>
<th></th>
<th>Reserves</th>
<th>Quasi</th>
<th>Endowment</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>736.2</td>
<td>792.8</td>
<td>870.6</td>
<td>2,399.6</td>
</tr>
</tbody>
</table>

- Total reserve and endowment has improved by $141 mil versus 2014
- Significant reserves exist to allow careful transition strategies
- SOM has just $211 mil of debt
How the Dean allocates the budget

<table>
<thead>
<tr>
<th>Research support</th>
<th>UME support</th>
<th>Pays for space?</th>
<th>Overhead as % of expenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Science</td>
<td>72% of indirects</td>
<td>e-RVU based</td>
<td>yes</td>
</tr>
<tr>
<td>Clinical Science</td>
<td>40% of indirects</td>
<td>e-RVU based</td>
<td>yes</td>
</tr>
<tr>
<td>Centers and Institutes</td>
<td>Not on formula, except for DCRI</td>
<td>no</td>
<td>except for DCRI</td>
</tr>
</tbody>
</table>

Why are the formulas different?

- The clinical departments receive all of the 5b transfer and most of the gift and endowment income.
- The blended indirect cost recovery rate (%) is lower in the clinical departments due to the blend of research.
Departmental Funding for Research and Education as of June 30, 2013

Clinical

- External sponsors: 49%
- DUHS: 12%
- 5b transfer: 6%
- All Other: 12%
- Gifts/endowment: 9%
- SOM (Dean allocation): 12%

~$441 mil

Basic Science

- External sponsors: 58%
- DUHS: 35%
- 5b transfer: 4%
- All Other: 3%
- Gifts/endowment: 3%
- SOM (Dean allocation): 0%

$91 mil
Sponsored Expenditures

FY09 | FY10 | FY11 | FY12 | FY13
---|---|---|---|---
Fed Direct | | | | |
Non-Fed Direct | | | | |
Fed Indirect | | | | |
Non-Fed Indirect | | | | |
Research - Macro economic structure

The research mission requires on-going support for all schools of medicine, in the range of 30-40% for each dollar of NIH direct cost funding (and rising).

Note: this is over the long-term - most grants are financially advantageous to the School on a marginal basis (i.e., if they can be conducted in existing space by existing personnel).

Costs not covered include:

- Start-up of new faculty
- Bridge funding of established faculty
- Full building costs
- IT infrastructure
- Full research administration cost
- Compliance/QA infrastructure
- Faculty retention commitments
- Shared resources/core facilities

The School has capacity to add significant research dollars without hitting a “fixed cost step” (the ARRA influx was an example).
F&A “RECOVERY” (not profit)

Short-term view (“marginal impact”) and long-term view (“full cost”)

Institutional support of research

F&A "RECOVERY" (not profit)
Components of Our F&A Rate: FY14 and FY15

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Operations &amp; Maintenance</td>
<td>14.9</td>
</tr>
<tr>
<td>Building Depreciation</td>
<td>7.2</td>
</tr>
<tr>
<td>Equipment Depreciation</td>
<td>3.2</td>
</tr>
<tr>
<td>Interest</td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Subtotal: Facilities</strong></td>
<td><strong>28.5</strong></td>
</tr>
<tr>
<td>General Administration</td>
<td>2.8</td>
</tr>
<tr>
<td>Sponsored Programs Administration</td>
<td>3.4</td>
</tr>
<tr>
<td>College and Departmental Admin.</td>
<td>19.8</td>
</tr>
<tr>
<td><strong>Subtotal: Administration (CAPPED)</strong></td>
<td><strong>26.0</strong></td>
</tr>
<tr>
<td><strong>Library</strong></td>
<td><strong>2.5</strong></td>
</tr>
<tr>
<td><strong>TOTAL (MTDC)</strong></td>
<td><strong>57.0</strong></td>
</tr>
</tbody>
</table>

Exclusions: Equipment > $5k, patient costs, etc.

Actual = 30%
## Average F&A for Federal and Non-Federal Awards

**FY13**

<table>
<thead>
<tr>
<th>Category</th>
<th>Basis of Calculation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Awards</td>
<td>Based on Total Direct</td>
<td>38.6%</td>
</tr>
<tr>
<td></td>
<td>Based on MTDC</td>
<td>50.5%</td>
</tr>
<tr>
<td>Non-Federal Awards</td>
<td>Based on Total Direct</td>
<td>11.3%</td>
</tr>
<tr>
<td></td>
<td>Based on MTDC</td>
<td>17.5%</td>
</tr>
</tbody>
</table>
Well, when are you going to talk about the CRU’s?
CRU Revenue by Category FY11-FY13 (in $000s)
CRU Expense by Sponsor Type - FY13

- Federal: 55%
- State: 4%
- Foundation: 9%
- Industry: 21%
- Internal: 11%

Legend:
- Federal
- State
- Foundation
- Industry
- Internal
Clinical Research Units Profit/Loss Statement  
Fiscal Year End June 30, 2013  
All CRU’s Combined

<table>
<thead>
<tr>
<th>Clinical Research Units within the School of Medicine</th>
<th>Summary of Income and Expenses by Funding Type</th>
<th>All CRU's for the year ended June 30, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in 000's)</td>
<td></td>
</tr>
</tbody>
</table>

|                                | Internal Funded & Infrastructure Costs | Federal Funded | State Funded | Foundation Funded | Industry Funded | Total     |
|                                |                                      |                 |             |                  |               |           |
| Revenue *                      | $385                                  | $75,275         | $6,073      | $12,959          | $41,467       | $136,159  |
| Direct Costs                   | $15,279                               | $56,977         | $4,510      | $9,468           | $23,941       | $110,175  |
| Indirect Costs                | ($5)                                  | $20,300         | $1,824      | $2,654           | $6,057        | $30,830   |
| Support (In)/Out              | ($12,979)                             | ($911)          | $13         | $194             | $2,603        | ($11,080) |
| Project Closeouts, (In)/Out   | ($2,404)                              | ($132)          | $17         | $32              | $5,199        | $2,712    |
| Change in Fund Balance        | $494                                  | ($959)          | ($291)      | $611             | $3,667        | $3,522    |

* Accts Receivable Balances  
$4,419 $1,866 $1,965 $12,653 $20,903
Although we’ve done a lot, we’ve a lot to do....

- Maestro use and reporting
- Education on all fronts
- Monitoring/QA
- Enrollment
- Negotiations
- Optimize organizational accountability
- Optimize financial management
- CTMS
- Grants - clinical research intersection
- Etc., etc., etc.
And what about the School?

- Manage impact of shrunken NIH budget
- Address clinical departments which are under siege from shrunken NIH budget and declining clinical reimbursement
- Continue development of IT tools
- Address aging research facilities on campus
- Continue mentoring young faculty
- Continue finding ways to improve grant success
- Balance academic mission with size of clinical mission, philanthropy, and technology transfer revenues
Questions?