
Aloha House Committees Chairs and Vice Chairs of Higher Education and Health,

Attached are the JABSOM documents requested during last week's Higher Education Committee SB239 hearing. These documents were requested of the JABSOM Dean, Dr. Jerris Hedges, during the hearing by Rep. K. Mark Takai .

They are:

1. JABSOM's Business Plan related to the Use of Tobacco Settlement Funds
2. JABSOM's Sources of Revenue allocated and earned since the Kaka'ako Facility opened in fiscal year 2005.
 - a. See page 2 for specific information regarding our Indirect Cost Revenue earned and retained by JABSOM (i.e. returned in the following year as RTRF).

Please let me know if you have any questions regarding these documents. Mahalo.

Best regards,

Nancy

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University of Hawai'i at Manoa, John A Burns School of Medicine "One of Hawaii's Best Kept Healthcare Secrets"

EXECUTIVE SUMMARY

The Kaka'ako biotech vision of former Governor Ben Cayetano and former Dean Ed Cadman is alive and well, despite the death of fund-raising promises made nearly a decade ago by former UH President Evan Dobbelle. The state legislature made a long-term commitment toward two important goals by investment in the new medical school facilities through its assignment of Tobacco Master Settlement Funds to the project.

(1) A more diversified state economy through bio-tech research and development.

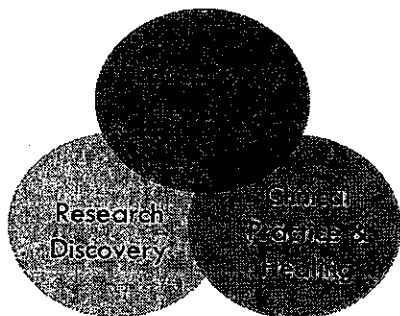
The new medical school research facility helps the John A. Burns School of Medicine annually bring more than \$40 M of federal support to Hawaii. These monies represent vital jobs for the state, and they create the future opportunity to develop spin-off technology and industry. The recent ground-breaking for the Cancer Center of the University of Hawaii on the Kaka'ako campus will add synergy to the medical school's research endeavors and create additional opportunities.

(2) A vibrant educational center for medical student education.

The new medical school educational facility helped the John A. Burns School of Medicine receive a full 8-year accreditation for its medical student education program. The state faces a major and growing physician workforce shortage and providing education for trainees from Hawaii who will practice in Hawaii is a priority for the school.

The genesis of the John A Burns School of Medicine's goals comes from its strategic plan vision and mission statements.

FIGURE 1: INTEGRATED MISSIONS



- 1) Vision: Maika'i Loa: to Attain Lasting Optimal Health for All (ALOHA)
- 2) Mission: In its essence: to "collaborate with stakeholders to meet Hawaii's existing, emerging and future Health Care needs."
- 3) Goals: To achieve excellence in Teaching, Discovery, and Healing while also excelling in communication, cooperation and collaboration with the community throughout the State of Hawaii.

Given the high cost of living in Hawaii, the medical school provides the best hope of providing opportunity for applicants from Hawaii to receive medical school training regardless of economic circumstances by keeping tuition at or below the median for state medical schools in America. Further, helping its students graduate with a low debt load will enhance the

medical school's ability to retain its graduates in Hawaii. Thus, the medical education side of the Kaka'ako success story is dependent upon continued support from the State's general fund appropriations and the assignment of Tobacco Settlement Funds in support of the educational mission.

MAKING AN IMPACT ON HAWAII'S HEALTH AND WELL BEING

In return for receipt of the State's Tobacco Settlement Funds, the medical school trains medical student and post-graduate medical trainees (hospital-based residents and fellows) in tobacco cessation techniques and the cause & treatment of tobacco-related disease. Given the burden of tobacco use on our state and the knowledge that patients are at least 30% more likely to stop using tobacco when supported in that endeavor by their physician, this is an invaluable and essential investment of those funds obtained from the Tobacco Master Settlement Funds.

The State's general fund and tobacco settlement investment has also provided the School the opportunity to recruit top notch researchers and physician faculty members who are making a difference for Hawaii. Health fields such as human reproductive biology, cardiovascular disease, HIV AIDS, tropical medicine, native and pacific island health disparities management represent just a sampling of health research and patient care disciplines in which our School's faculty members focus their expertise.

The medical school is considered a community-based medical school. That is, the school has no university hospital. Rather, the faculty members and resident trainees also provide workforce support to the state and its community teaching hospitals on Oahu. In addition the School is actively collaborating with key stakeholders on the neighbor islands to expand medical care and training to Hawaii's rural areas. In 2009, the medical school opened its first neighbor island clinic on the Big Island. The new Cancer Center being added to the UH's Kaka'ako site will create opportunity to expand medical discoveries by medical school and Cancer Center faculty members in Hawaii that will lead to cures, preventions and health care treatment practices.

THE VALUE OF AN ACADEMIC MEDICAL CENTER

The Discovery and Healing missions are considered symbiotically linked to an academic medical school's teaching mission. In the U.S. there are 133 accredited medical schools that are members of the Association of American Medical Colleges (AAMC). Of these 133 schools, over 50% are public schools and ninety-four percent (94%) of these public medical schools have a triple mission integrated model. This integrated enterprise structure, often referred to as an academic medical center, provides an exclusive educational opportunity for medical and bio-medical sciences doctoral students to train in a translational medicine "bench to bedside" training environment. Training occurs in the classroom, the research laboratories and hospitals & clinics.

"BENCH" RESEARCH



"BEDSIDE" CLINICAL



Translational research provides medical doctors and bio-medical PhD researchers with the tools needed to address unique patient clinical needs. Translational medicine incorporates research discoveries into medical practice, e.g., new drugs and medical devices that can help patients. Benefits of an academic medical school are appreciated by not only the student but also the community. Monetary benefits resulting from an academic enterprise can be measured in extramural funds earned from research and clinical service delivered by the faculty members.

BUSINESS PLAN

The School's business plan leverages state appropriated funds (including tobacco settlement fund monies) to further its multiple missions of biomedical research, clinical service, and healthcare education. The biomedical research indirect dollars retained by the School covers the research facilities costs at Kaka'ako, but does not cover the facilities costs for healthcare education. The latter educational facilities support is provided through the tobacco settlement monies. Without this state support, stable growth of the biomedical research, clinical service on behalf of community hospitals in the state, and statewide healthcare education will be compromised. Tuition increases will be needed in the future years, but must be done cautiously. We must not raise the cost of medical education such that Hawaii students lose the opportunity to serve as the solution to Hawaii's future healthcare needs.

The business plan focuses on the following three initiatives:

1. Medical education (teaching): training the next generation of Hawaii's medical profession workforce (**Addressing Hawaii's physician workforce shortage**).
2. State economic stimulation by which state monies leverage federal grants helping discover medical cures and development of new health protocols and techniques to enhance medical care (**Creating jobs coupled with improved health care**).
3. Both front-line and specialty healthcare for all of Hawaii's patient population regardless of their financial standing (**Directly providing medical care needed in Hawai'i**).

BRINGING HIGHER EDUCATION TO THE STATE OF HAWAII

It is often misunderstood that the John A. Burns School of Medicine (the School) only educates and trains medical students. In actuality, the school instructs and trains a diverse student body. The School is the only accredited higher education professional school in the State of Hawai'i providing the programs listed on Table 1 on the following page.

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TABLE 1: School of Medicine Educational Programs

Program	Program Defined	Students Enrolled	Hawaii Residents	Graduates since Inception
Medical Doctorate	Established 1975. Four (4) year doctorate degree program with an 11-month annual curriculum.	250	90%	2,106
Pre-MD Post Baccalaureate (disadvantaged Pacific Island students)	Established 1975. One (1) year pre-MD program. Graduates are guaranteed enrollment into the med school's MD program after successful completion. 40% of all graduates are of Native Hawaiian descent.	12	99%	395
Graduate Medical Doctorate Resident Training	3-5 Year post medical doctorate resident and fellowship training needed to become licensed physicians. Training is at Waianai General Hospital at Kapiolani Medical Center, Kapiolani Women's & Children's Medical Center, Queen's Medical Center, Castle Medical Center and Flib Medical Center on the Big Island.	260	51%	2,394
Bio-Medical Sciences Master of Science & PhD	Masters, PhD and Post-doctorate Clinical Research programs educating future research scientists and teaching faculty.	65+	70%	101+
Medical Technology	Earning a Bachelor of Science degree and clinical training needed to become licensed to practice as a Medical Technologist.	10	90%	101
Communications Science Disorders (Speech Pathology)	Earning a Bachelors and Masters of Science degree and clinical training needed to become licensed to practice as a Speech Pathologist.	46	66%	1,227
Public & Global Health	Master and doctorate degrees in Public Health, Master degrees in Epidemiology and Behavioral Health.	89	54%	270
UHM Undergraduate	Faculty also teach Anatomy, Physiology, Microbiology courses.	150+	Unknown	Unknown

More than 50% of the medical students and MD resident trainees instructed at the Kaka'ako campus and Hawaii's hospitals represent the next generation of physicians entering our workforce. These MD students and resident trainees will become the much needed medical care providers for the people of Hawai'i. A recent physician workforce study by state conducted by the Association of American Medical Colleges (AAMC) ranked Hawaii as number 1 out of the 50 states for the highest physician retention of those medical students who earn both their medical doctorate degree and also perform their residency training in Hawaii.

Additionally, a large percentage of the School's Public Health, Medical Technology and Speech Pathology (Communication Science & Disorders) departments' graduates in these fields also remain in Hawaii. These individuals hold many prominent positions in private corporations, teach in our educational institutions and many serve on community boards, legislative committees and branches of our state government.

MEDICAL SCHOOL HELPING HAWAII'S PHYSICIAN WORKFORCE SHORTAGE CRISIS

Across the United States the need for physicians continues to grow and in Hawai'i the need is much higher given its aging population and prime retirement location.

- ~8,000 physicians are licensed in Hawai'i
- Only 2,901 of the 8,000 physicians are practicing in Hawai'i, (equivalent to 2,626 FTEs)
- Estimate of physician demand is 3,380 FTEs (29% less than available)
- We are short more than 600 physicians now
- The shortage more than doubles by 2020 without growth in training programs

The School is vital to solving the Physician Workforce Shortage needs. According to the school's historical and alumni records:

- 25% of Hawai'i physicians are JABSOM med school graduates
- 40% of Hawai'i physicians are either JABSOM medical school graduates or JABSOM/Hawai'i Residency Program (HRP) trainees
- >50% of Hawai'i physicians are either JABSOM trained or compensated JABSOM faculty
- >80% those who graduate from JABSOM's medical school and conduct their residency training and certification from JABSOM/HRP will practice in Hawai'i

Given the above statistics, the medical school would like to help the State meet its physician work force shortage needs by:

- Increasing the entering class size from 62 to 75 entering students
- Increasing clinical faculty size

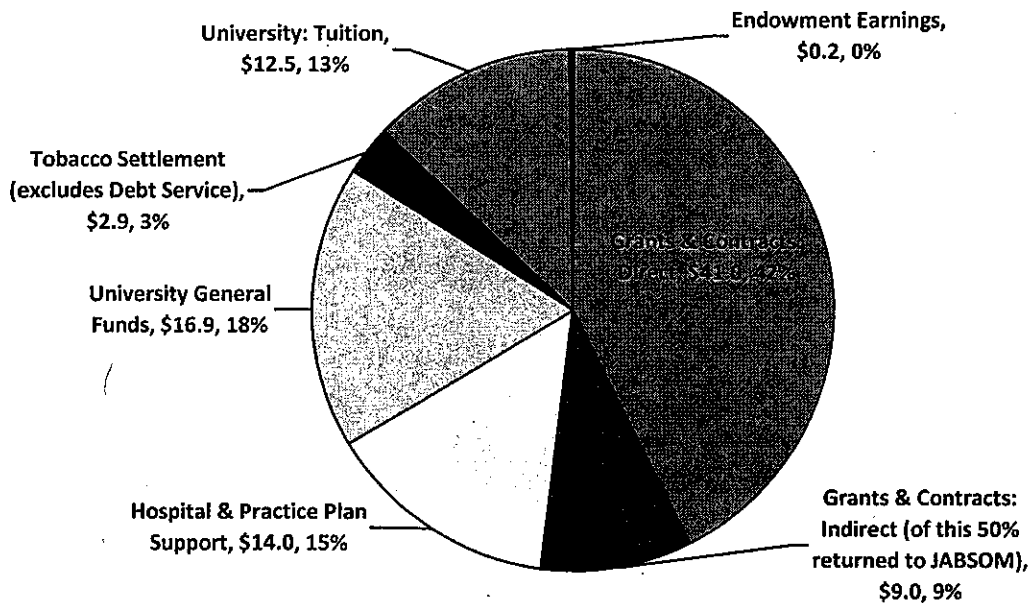
The current Kaka'ako facility can physically accommodate the additional students and faculty members for the first two years of training. Further, the salary support for the additional faculty members will permit additional clinical training sites for students and residency trainees to be created in the community.

STIMULATING HAWAII'S ECONOMY WITH NEW DOLLARS

The John A Burns School of Medicine provides jobs for over 1,000 Hawaii residents. These dedicated individuals collectively are responsible for the School bringing in millions of new extramural dollars

(beyond any state and tuition funds) into Hawaii each year that flow through the University of Hawaii. In fiscal year 2010, the medical school ranked second overall amongs University of Hawaii schools and colleges for bringing in extramural research awards and ranked first in bringing in extramural non-research dollars and scholarships monies.

Figure 2: Sources of Funds (in millions)



DIRECT VERSUS INDIRECT GRANTS AND CONTRACT DOLLARS

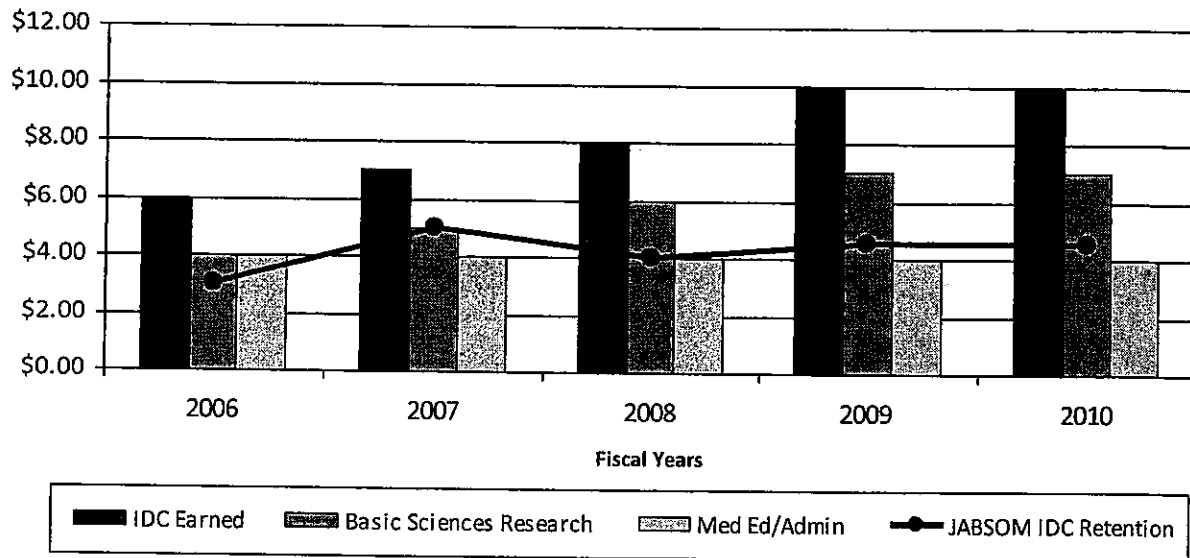
It is important to note that for extramural grants and contracts: direct awards and hospital & practice plan support monies are contractually bound to pay for certain school of medicine expenditures related to the cost of performing research, clinical teaching and medical support services. These dollars may cover direct project costs such as salaries, support staff, supplies, equipment, medical malpractice insurance, etc.

Indirect cost recovery fee dollars are provided by the funding agency to cover infrastructure costs such as facilities, grants and contracts administrative support staff, administrative costs and other research infrastructure and equipment maintenance costs. Federal agencies or branches of government pay the majority of the indirect cost recovery fees the School receives each year.

The School's indirect cost (IDC) recovery rate paid by funding agencies may be as low as 3% to as high as 50% paid by Federal funding agencies such as National Institutes of Health. The federal IDC rate is largely based on the school's monetary contribution towards facilities and administration infrastructure as a percentage of direct research qualified expenditures. The Kaka'ako site presently holds the University of Hawaii's highest federally approved IDC recovery rate at the 50% level. Thus encouraging more federal research based at Kaka'ako brings more IDC revenue into the state.

New research construction and renovation (such as the new Cancer Center) will raise or maintain the Kaka'ako federally approved IDC recovery rate for all research performed at this and the associated Kaka'ako Gold Bond building locations. The School's IDC recovery earnings compared to the facilities infrastructure costs since the Kaka'ako facilities opening in the fall 2005 are reported in figure 3.

Figure 3: IDC Earned versus Facilities Costs (in millions)



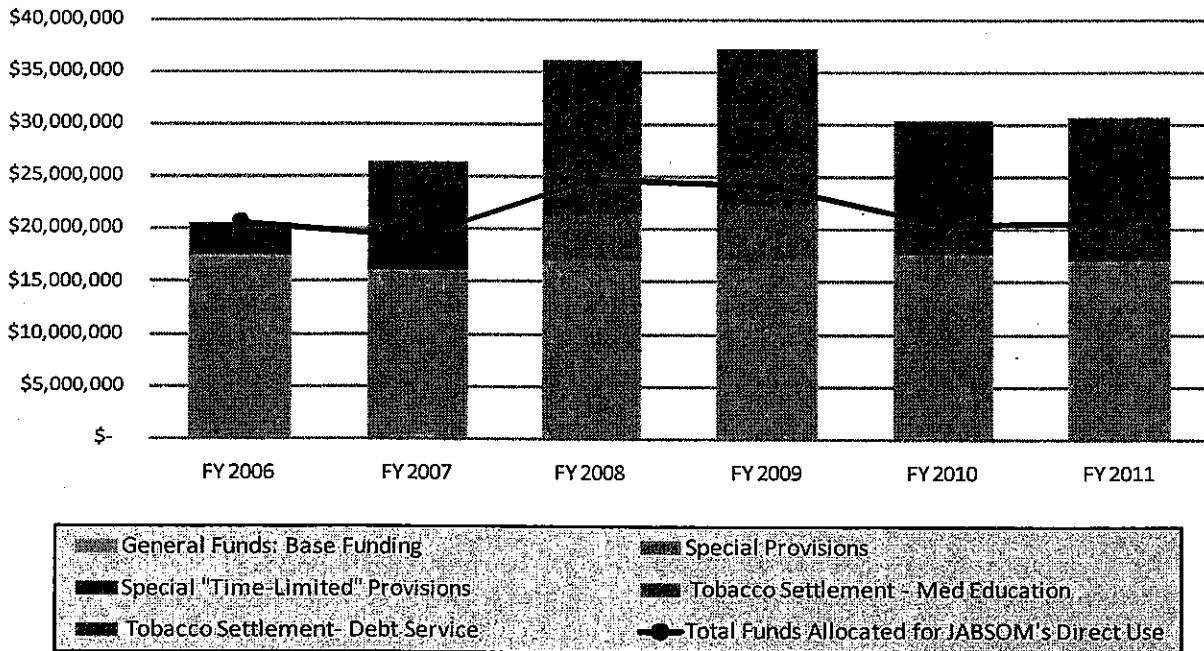
As predicted during the planning of the new Kaka'ako Basic Sciences Research Building, the school's total IDC earned has reached levels that fully cover its research infrastructure expenditures. However, the medical school, and all schools & colleges at University of Hawaii at Manoa, only retain 50% of their IDC earned annually (funding level noted by black line in figure 3 graph). Therefore the IDC dollars retained annually by the medical school cover only two-thirds of the School's basic science research infrastructure costs (including Gold Bond and Leahi building locations) and none of the medical educational infrastructure costs.

COVERING THE SCHOOL'S OPERATING COSTS SHORTFALL:

In years past, University leaders and others made several promises, including those of future philanthropy that would be raised at the School and Cancer Center. Some promises made by prior leaders were unrealistic or contingent upon a continued strong state economy and other anticipated factors (such as 15-20 additional state funded faculty positions promised to Ed Cadman to help drive the biotech innovation) that are no longer possible.

The State continues to be very responsive to the medical school's prior requests for funding Kaka'ako Health and Wellness operations (see figure 4). However, the recent decreases to the state general funds appropriated to the University of Hawaii have directly affected all UH schools and colleges, including the medical school. All gains made with prior appropriations in fiscal years 2008 and 2009 have now been lost due to the School's \$5 million reduction of state general funds that began in fiscal year 2009.

Figure 4: State General Funds & Special Appropriations to the University of Hawaii on behalf of John A Burns School of Medicine



Note: The black line in the graph above notes total funding levels made immediately available by UH-Manoa for the medical school's direct use (at the end of the fiscal year). The additional annual \$10M debt service contributions from the Tobacco Settlement Funds (TSF) will be required through 2033 when the construction costs have been fully covered.

FUTURE OF THE KAKA'AKO HEALTH & WELLNESS SITE:

The addition of the Cancer Center to the Kaka'ako location in early 2013 will add several synergies and will reduce infrastructure duplicities. These synergies include continued research faculty collaboration (Cancer Center leases over 20,000 square feet in the JABSOM basic sciences building) and sharing of the medical school's vivarium, library, food service "Kulia Grill" (ran by Kapiolani Community College, but all facility operations are covered by JABSOM), parking and grounds keeping to name a few. New synergies with the School of Nursing, Hilo's School of Pharmacy and the future School of Global & Community Health, (presently department of Public Health Sciences) are also future possibilities.

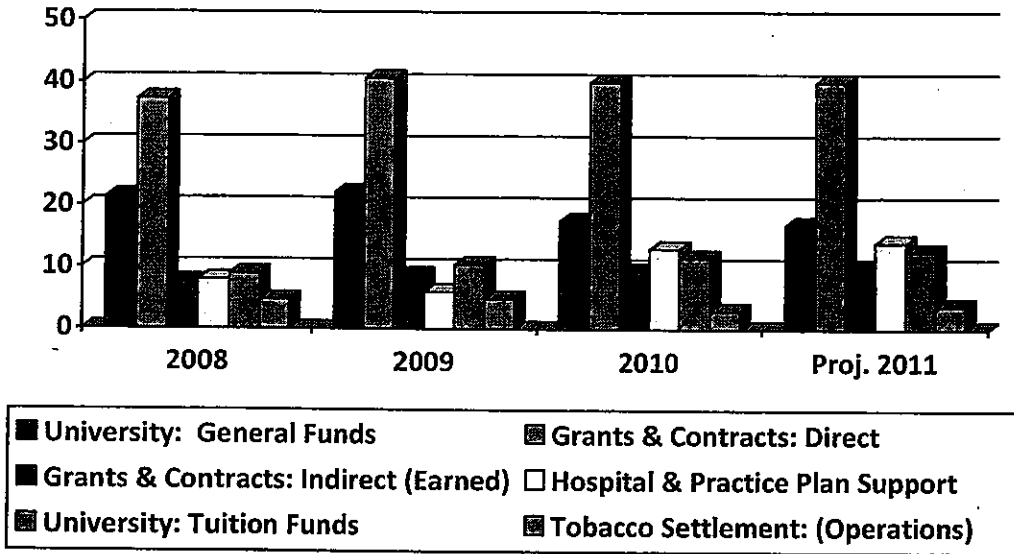
OPPORTUNITY FROM TOBACCO SETTLEMENT FUNDS

Utilizing the tobacco settlement funds to cover the medical school's facilities operating expenditures, provided the School the opportunity to use its University's allocations to:

- In fiscal year 2008, invest and fund Research faculty needed to build the Research enterprise during the new facility start-up phase. Though research dollars for direct costs are presently flat (see figure 5), key lead

investigators and centers of excellence were established; indirect cost recovery dollars have increased as predicted.

FIGURE 5: FY 2008 to Present School of Medicine Sources of Funds (in millions)



- In fiscal year 2009, the school had to support and fund the Clinical teaching faculty formerly supported by HMC-East (claimed bankruptcy), Dept. of Education (funds were stopped) and Clinical Faculty Practice (allowing economic recovery and stabilization).
- In fiscal year 2010 and 2011, the school funded and retained faculty and staff resulting from a State General funds decline of approximately 25% for the medical school. These faculties and staff instruct, train and/or provide support for the School's annual student body consisting of over 750 students/trainees in the professional fields of Medicine, Biomedical Sciences, Medical Technology, Public and Global Health and Communication Science & Disorders (i.e. Speech Pathology).

EXTENDING THE SUNSET DATE WILL HAVE A DIRECT EFFECT ON HAWAII AND ITS CITIZENS

Loss of the Tobacco Settlement funds would result in an immediate School annual operating deficit of at least \$3,000,000. This loss is equivalent to a workforce reduction of 40 to 50 teaching faculty. A faculty loss of this size would require a student body capacity reassessment and would negatively affect Hawaii's future physician workforce shortage, biotech discoveries and the ability to provide health care to Hawaii's citizens. Table 2 provides just a few of the losses Hawaii and its citizens will experience if the medical school's Tobacco Settlement Funds for operations lapse.

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TABLE 2: Effect of Losing Tobacco Settlement Funds

	Fact	If Tobacco Settlement \$\$ lapse, ...
1	For every State dollar awarded, the School is able to bring to the State \$2.67 of extramural dollars.	The State would lose \$8 million new dollars that would be spent in Hawaii on job generation and associated general excise tax generation.
2	The annual cost of instructing the School's medical students is approximately \$65k per student. The School trains many healthcare learners whose programs are linked to the success of the medical school overall.	Were this loss made up through increased tuition charges, Medical Student in-state resident tuition would need to increase from \$27,000 annually to \$41,000 (a nearly 52% increase). Many Hawaii medical student candidates of modest personal and family means could not attend Hawaii's only State Medical School (significant local opportunity would be lost).
3	The School employs ~ 1000 Hawaii citizens (headcount), consisting of faculty, staff and students.	~6% of these 1000 Hawaii citizens would lose their jobs with the medical school. The trickle-down effect on the community caused by reduction of this financial economic driver would be significant.

EXTEND ACT 264, SLH 2007 SUNSET DATE TO 2015

The Tobacco Master Settlement Funds (TSF) continues to provide the necessary funds essential to cover the annual Kaka'ako revenue bond debt service and the needed funds to balance the School's annual operations budget. The School of Medicine requests the approval of the State to extend the sunset date (June 30, 2011) in Act 264, Session Laws of Hawaii 2007, relating to tobacco settlement funds for continued use of operations expenses by the John A Burns School of Medicine, to align with the repeal sunset date (June 30, 2015) in Act 119, Session Laws of Hawaii 2009. The School of Medicine will need to work with the legislature to ensure that continued bond debt service and operations expenses are covered in the out years.

FUTURE USE OF TOBACCO SETTLEMENT FUNDS

Early in fiscal year 2009, the School began its Strategic Planning process to readdress its Mission, Vision and Values, assess priorities in these economic times and redefine its goals and action plans. Several goals have already been accomplished: 8 year Medical School Accreditation, a growing Research Enterprise and Collaborative Alignment with Hawaii's Community Hospitals and Health Centers both on Oahu and the neighbor islands. Tobacco Settlement funds are a key resource enabling the School to fulfill these plans and to continue to:

- Fuel a more diversified state economy through bio-tech research and development. The recent ground-breaking for the Cancer Research Center of Hawaii on the Kaka'ako campus will add synergy to the medical school's research endeavors and create additional opportunities.
- Provide a vibrant educational center for the medical school student body and post graduate residents focusing on rural residency programs and physician retention. The state faces a major and growing physician workforce shortage and providing education for trainees from Hawaii who will practice in Hawaii is a priority for the school.

MEMORANDUM

DATE: February 23, 2011

TO: Chairs & Vice Chairs of the Senate and House Committee for Higher Education,
Healthcare and Finance

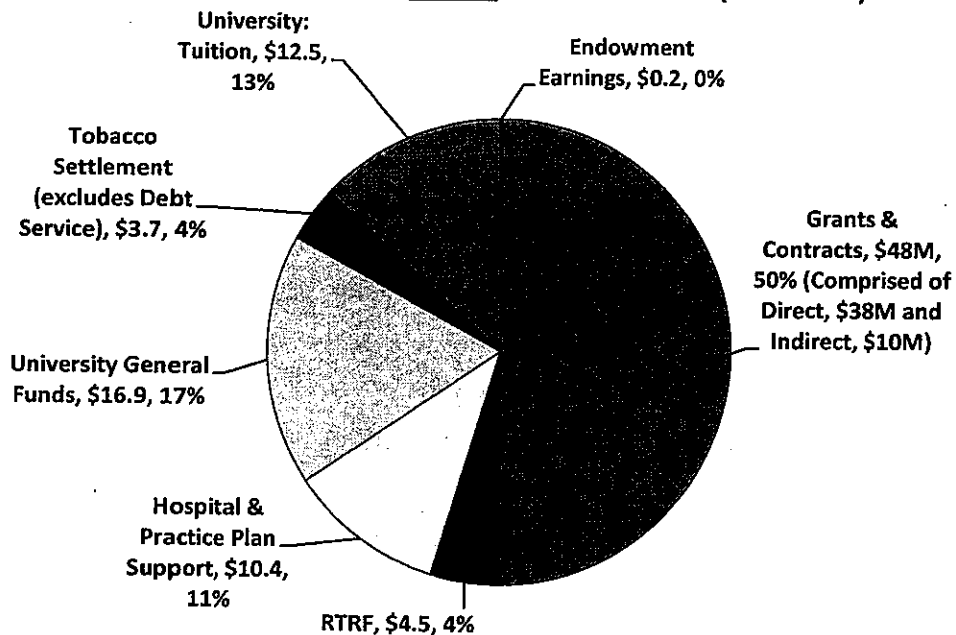
FROM: Jerris R Hedges, MD, MS, MMM
Dean of the John A Burns School of Medicine at the University of Hawai'i at Manoa

RE: **THE JOHN A BURNS SCHOOL OF MEDICINE FUNDING SOURCES**

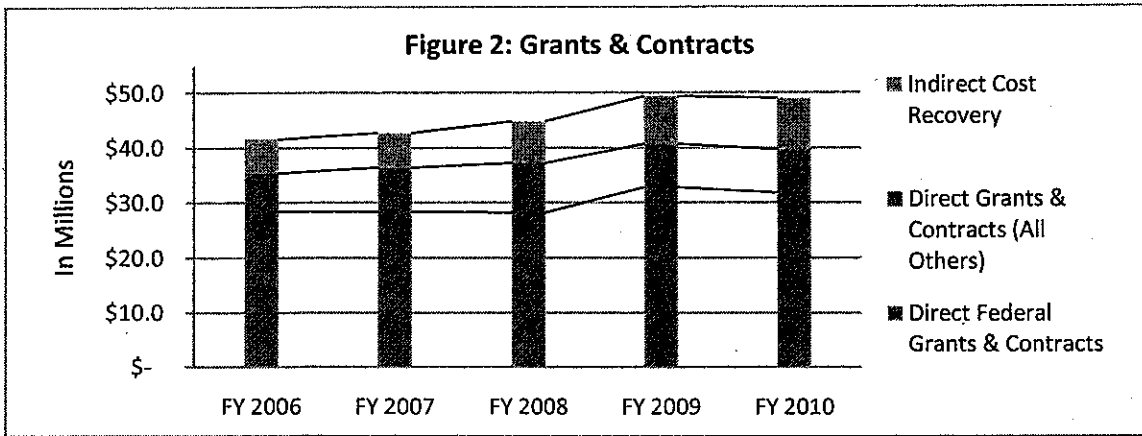
We appreciate the opportunity to provide you and your committee with the following information detailing the funding sources of the John A Burns School of Medicine (the School). The School provides jobs for over 1,000 Hawaii residents and educates over 1,000 students. Our student body includes University of Hawai'i students seeking to attain bachelors, masters, PhD and medical undergraduates (MD) degrees. Additionally the School trains ~250 graduate medical doctorate resident and fellow trainees who practice in the State of Hawai'i under the direct oversight of the School's clinical teaching faculty.

STIMULATING HAWAII'S ECONOMY WITH NEW DOLLARS The School collectively is responsible for bringing in millions of new extramural dollars (*beyond any state and tuition funds*) into Hawaii each year that flow through the University of Hawaii. In fiscal year 2010, the medical school ranked second overall amongst University of Hawaii schools and colleges for bringing in extramural research awards and ranked first in bringing in extramural non-research dollars and scholarships monies. For fiscal year 2011, approximately 64% of the School's funding sources are from external sources, i.e. extramural funds.

Figure 1: FY 2011 Projected Sources of Funds (in millions)



RESEARCH GRANTS & CONTRACTS awards are our largest extramural funding category. These awards are paid with federal, state and private foundation grants and contracts. Awards are broken into two funding categories direct and indirect.

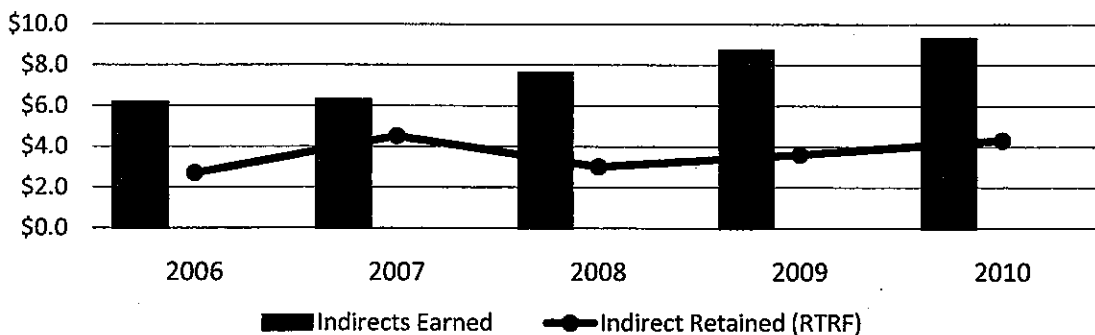


- **Direct** awards are contractually bound to pay for certain school of medicine expenditures related to the cost of performing research services. These dollars cover direct project costs such as salaries, support staff, supplies and equipment.
- **Indirect** awards are provided by the funding agency to cover infrastructure costs such as facilities, grants and contracts administrative support staff, administrative costs and other research infrastructure and equipment maintenance costs. Federal agencies or branches of government pay the majority of the indirect awards the School receives each year.

We do anticipate a decline in federal grants and contracts as the American Recovery and Reinvestment Act of 2009 awards expire. Additionally the federal NIH budget remains relatively flat; therefore increasing competition and demand for the same federal dollars across the county.

R FUNDS, ALSO KNOWN AS RESEARCH & TRAINING REVOLVING FUND (RTRF)

Figure 3: Indirect Dollars Earned versus Retained (in millions)

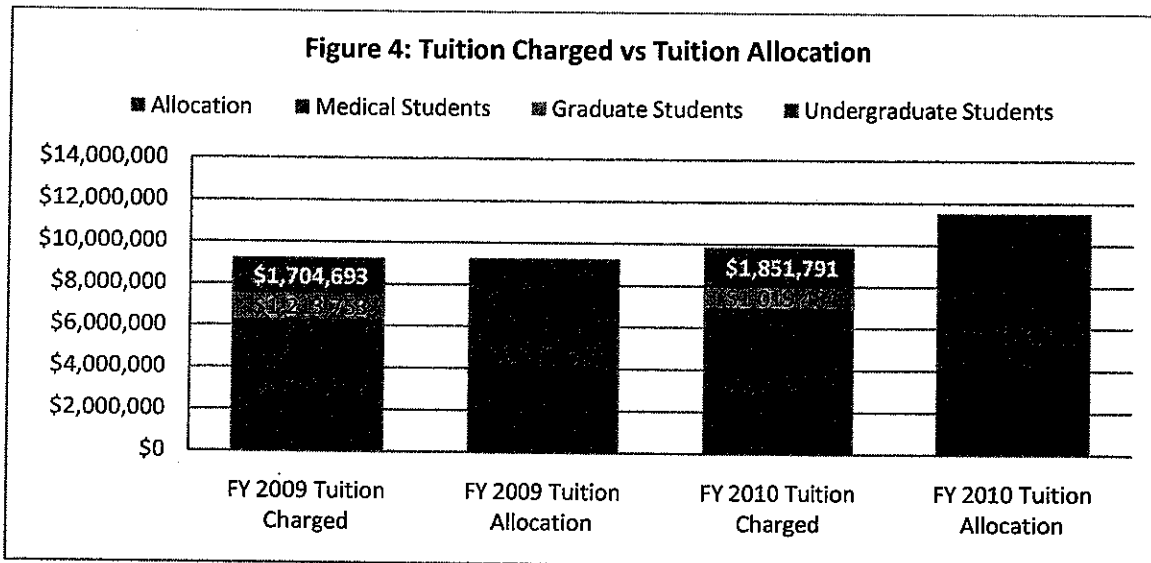


Annually all indirect award dollars earned by the School are held by UH system and UH Mānoa in a Research & Training Revolving Fund (RTRF) account. Fifty (50) percent of the indirect dollars

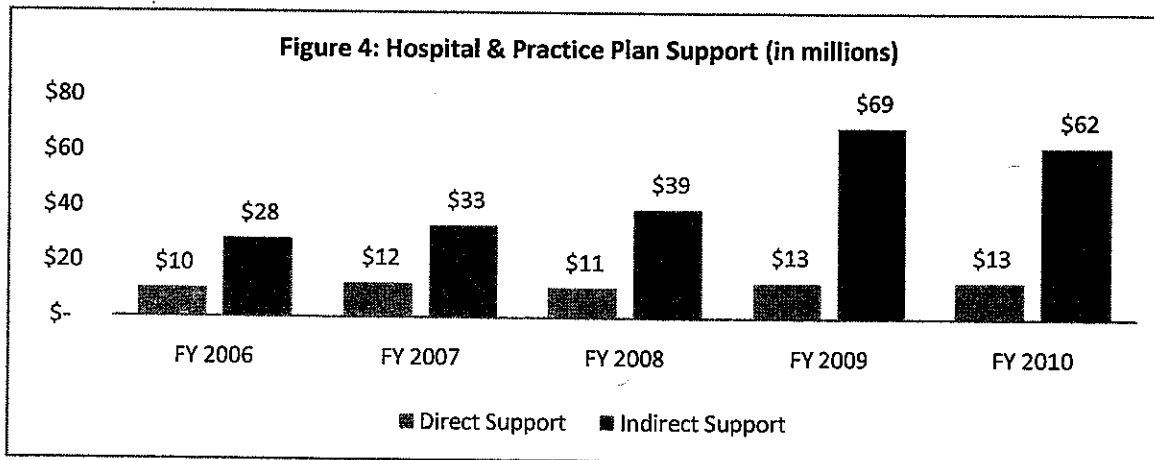
3 | John A Burns School of Medicine, Major Funding Sources Defined

earned by the medical school are returned back to the school the following fiscal year as an RTRF allocation. In fiscal year 2010, the School received RTRF funds of \$4.3 million, which only covered 2/3 of the \$7 million of research infrastructure costs (including research space at the Gold Bond and Leahi Hospital locations).

TUITION ALLOCATION for each UHM college and/or school is presently based on the historical financial needs not met by state general funds for that college or school. Therefore, the \$11.5 million that the medical school received in fiscal year 2009-2010 is not directly tied to the tuition dollars paid by the UH students (see figure 4). In fiscal year 2010, UHM used tuition dollars to help offset the loss of state general funds for all UHM colleges and schools including the medical school.



CLINICAL TEACHING SUPPORT DOLLARS are provided by Hawaii's community based hospitals and affiliated faculty practice plans (UCERA and Kapi'olani Medical Specialists).

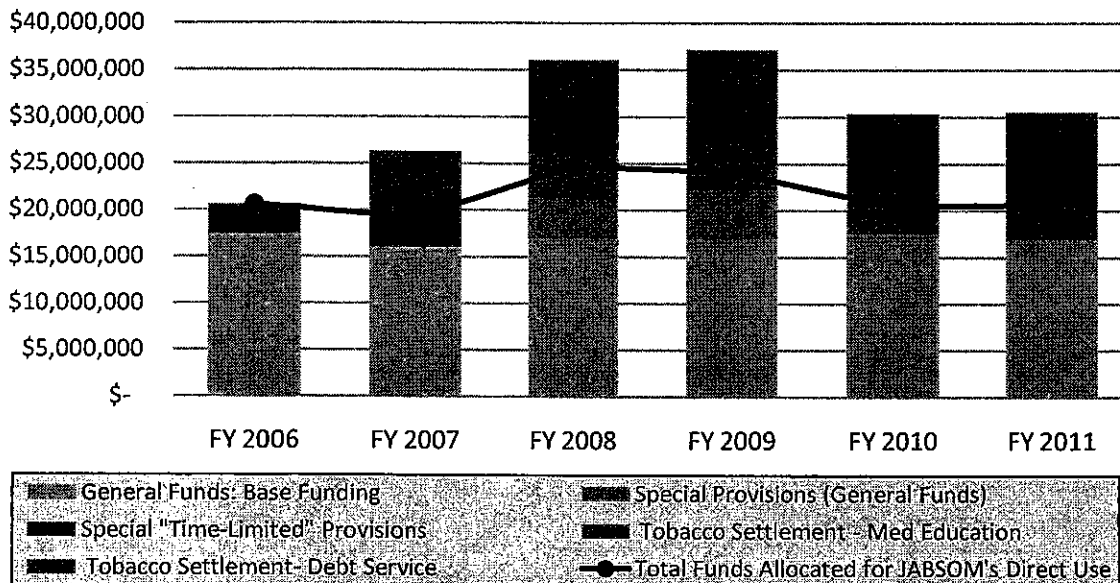


Many university medical schools in the U.S. have an associated University Hospital where their clinical faculty teach and train medical students, residents and fellows while providing patient care in a clinic and/or hospital setting. In Hawai'i, our students and resident trainees receive their hands-on patient care training at Hawai'i's community based hospitals and clinics. Fourteen (14) percent of the School's revenue sources, supporting the School's clinical teaching faculty salaries and benefits, are earned through the direct hospital and faculty practice plan contractual service agreements with the School. Indirect support in this category is defined as financial support provided on behalf of the medical school teaching mission but flowing to JABSOM affiliates such as Hawai'i Residency Program and our faculty practice plans (UCERA and KMS).

STATE GENERAL, SPECIAL PROVISIONS & TOBACCO SETTLEMENT FUNDS ALLOCATIONS

The State continues to be very responsive to the medical school's prior requests for funding Kaka'ako Health and Wellness operations (see figure 5). However, the recent decreases to the state general funds appropriated to the University of Hawaii have directly affected all UH schools and colleges, including the medical school. All gains made with prior appropriations in fiscal years 2008 and 2009 have now been lost due to the School's \$6 million reduction of state general funds that began in fiscal year 2009.

Figure 6: State General Funds, Special Appropriations & Tobacco Settlement Dollars



The black line in the graph above notes total funding levels made immediately available for the medical school's direct use (at the end of the fiscal year). The additional annual \$10M debt service contributions from the Tobacco Settlement Funds (TSF) will be required through 2033 when the construction costs have been fully covered.

SPECIAL AND REVOLVING FUNDS The school of medicine has a few special or revolving funds created from extramural funds to ensure operational continuity for two unique, but state required

programs. These funds and their purpose are listed in the table below. Without these funds the State would need to cover the risk of unexpected occurrences and unencumbered monetary damages.

Legal Authority	Fund Name	Purpose	Impact if Swept
304A-2152, HRS	Malpractice Reserve Fund	Maintains a reserve to cover medical malpractice claims expenses (up to \$250,000) related to claims filed against the School of Medicine and its faculty.	This fund was established with non-state funds. If these funds were swept, the medical school would need to: <ul style="list-style-type: none"> • request legal assistance for each claim, eliminating the ability to provide timely response • cover these expenditures with tuition dollars resulting in an annual operating deficit, having a downward spiraling effect on educational program funding
304A-2157, HRS	Hyperbaric Treatment Center	Maintains a reserve to cover operation shortfalls to allow a 24/7 physician staff available for diving accidents in the State.	This fund was established with non-state funds. The Hyperbaric Treatment Center operations were transferred from the DOH to UH in FY 1998. If these funds are swept, the medical school may need to close this program, leaving the State of Hawai'i without a facility to treat emergency diving accidents cases.

In addition to the funds named above, the school of medicine also has a research revolving and training fund that pays for unexpected and routine repairs and maintenance at its Kaka'ako and other teaching and research leased locations (i.e. hospitals medical offices, Gold Bond building, Leahi Hospital).

COST OF EDUCATION (REVISED MARCH 2011):

A summary calculation was performed to answer the legislative committees' question, "does the School's medical student tuition charged cover the cost of educating that medical student?"

Medical education costs (including faculty, staff and facilities) for undergraduate medical education (medical doctorate degree) equals approximately 11% (\$11 million) of the School's annual operating budget.

The ratio of medical student tuition over the \$11 million mentioned above is 70%. These numbers and percentages do not include residency training (i.e. MD practicing certification costs). Presently national comparators for us to benchmark our tuition costs are not available. The optimal tuition is one that provides reasonable contribution to our operating costs and does not impede the simultaneous goal of creating opportunity (without unreasonable debt burden) for Hawai'i residents.

University of Hawaii Cancer Center

Operating Budget Plan

The University has carefully reviewed the construction and operation of a new cancer center to produce a realistic operating budget plan.

The plan is based on assumptions and projections as explained in this presentation and is being monitored as we move forward.

It is a living document which will be adjusted as future circumstances require.

Revenue Sources

- Cigarette tax revenue
- Philanthropy
- Percentage of research grant awards provided to support research operation infrastructure (Indirect cost return)
- Revenue from the following sources are applied to reduce operating expenses and thus are not listed separately as revenue sources in the budget plan
 - General funds
 - Grant and contract revenue (except for the indirect cost return)
 - Hawaii Cancer Consortium contributions

Expenditures

- Construction of new building
 - Initial cash expenditure
 - Debt service for construction revenue bond
 - Owner occupancy expenses
- Operating expenditures
 - Salaries
 - Specialized research infrastructure
 - General building operation

Projected Budget Plan

(Millions of Dollars)

Fiscal Year	2011	2012	2013	2014	2015	2016	2017	2018
Beginning Cash Balance	46	27	12	5	1	2	3	3
Revenues	22	22	22	22	24	24	24	24
Cigarette Tax	18	17	17	17	17	17	17	17
Philathropy	2	2	2	1	1	1	1	1
Indirect Cost Return	2	3	3	4	6	6	6	6
Expenditures	41	37	29	26	23	23	24	24
Operating	23	21	20	18	15	15	16	16
Building	18	16	9	8	8	8	8	8
Ending Cash Balance	27	12	5	1	2	3	3	3

Budget Plan Revenue Assumptions

- Cigarette tax revenue declined 4% last year and is projected to decline 4% this year. We assume another 4% drop before stabilization.
- Indirect cost return is projected from current grant revenue of \$30M. Increase in revenue would result from addition of funded investigators and a higher percentage indirect cost return to be negotiated for new facility.
- Philanthropy is expected to increase in conjunction with new building construction and decline after completion.

Budget Plan Expenditure Assumptions

- Salary expenditures based on typical compensation packages for biomedical researchers
- Facility operating expenses based on medical school Kakaako research facility expenses

Challenges

- Loss of General Funds or reductions in special or revolving funds would negatively impact budget
- Indirect cost return revenue dependent on successful researcher recruitment and availability of biomedical research funding
- Philanthropy may be negatively impacted by the economy and other competing needs such as the Sendai earthquake and tsunami
- Cigarette tax revenues may decline further than estimated in this operating budget plan