UNIVERSITY OF FLORIDA

CORRECTED

Measuring University Performance: The Bank

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Nothing matters more to a university than the quality of its faculty, staff, and students. From their commitment and effort the university derives its quality. This quality is a fragile thing, depending as it does on the individual work of highly talented and creative people. University work requires support, encouragement, reward, and opportunity. In times of growth and expansion, our universities prosper on their own as sufficient resources appear to support the good ideas and good projects the faculty, staff, and students pursue. Methods for managing resources seemed less important then for our resources covered more of our needs.

Today, in the late 1990s, as resources grow more slowly than the university's needs, our methods of distributing and accounting for money become ever more significant. Each decision we make about money influences our ability to fulfill one or another university mission. In this highly resource-constrained environment, our success depends as much on our ability to do more with what we have as it does on our ability to find additional resources.

The University of Florida Bank accounts for our resources, measures our productivity, and gives us a tool for maximizing quality. Traditional accounting is done by fund, but traditional accounts rarely match the university's mission. Money flows into funds accounted for by their majority function. A departmental account coded as teaching may well include expenses for research. This obscures the true costs of both teaching and research. The Bank allocates all costs to the two major functions of teaching and research.

Traditional methods of resource allocation give either across the board increases and decreases, a method that does not reward performance at all, or gives resources back to those who generate them. This latter method called by some responsibility budgeting or "every tub on its own bottom" may be useful in universities where colleges admit students directly and pay for most of their instruction within the college or where most of the funding comes from student tuition and college-based endowment. In our university, however, we have a wide range of shared services, shared curriculum, and shared resources. In our environment, this form of responsibility budgeting would unleash fierce competition between colleges for existing students and it would create incentives to duplicate services in order to keep revenue and expenses inside each college. We prefer to create incentives for cooperation and cost reduction. In our model, colleges that increase enrollment at the expense of other colleges simply rearrange revenue rather than increase the university's resources.

Productivity and Quality

The bank is a productivity model. We expect increased productivity to lower costs and drive an emphasis on quality. Improvement in quality and productivity requires a focus on costs. When we reduce costs and increase productivity, we also generate the marginal new revenue for investment in enhanced quality. We recognize that some necessarily expensive colleges and curricula produce deficits; and others, intrinsically less expensive, produce surpluses. Some colleges produce significant income from sponsored research or private giving; and others have fewer opportunities to generate this revenue. The Bank supports the investment of the university's discretionary marginal income into colleges with high productivity, high quality, and increased performance.

The Bank supports academic judgment; it does not replace it nor does it create an automatic reallocation process. In evaluating colleges and allocating revenue, the university uses the detailed data in the Bank. The Bank delivers a data based productivity model to inform academic judgments about the allocation of university resources. When

we invest the university's scarce resources, the Bank provides a method for measuring the result of that investment.

We define quality through the Florida Quality Evaluation Project (FQEP) principally in terms of our competitive peer group. We belong to the Association of American Universities, a group of 60 of America's major research universities. That group has 40 public universities and 20 private institutions. Our peer group consists of the 40 public AAU universities. Within these 40 universities, we benchmark each college for quality against its counterpart at three institutions we judge most similar to us in size and variety of programs: University of Illinois, University of Minnesota, and Ohio State University. By using these three universities in our college quality benchmarking, we guarantee a common baseline of comparison.

In addition to these three, every college identifies seven other institutions among the AAU public institutions whose equivalent college can serve as an effective benchmark. When the best program in the country is at a private university or at an institution not a member of the AAU, we use that college or program, but only when we cannot find a suitable AAU benchmark. Each college then measures its quality and performance against its key national competition. Student quality, pass rates on licensure exams, faculty publications, grants and contracts, performances and exhibits, national and international awards and fellowships, student and alumni surveys, and the like can serve as appropriate quality indicators for both teaching and research. The provost and president use these indicators along with the productivity and cost data in the Bank to arrive at judgments about budget adjustments each year.

Costs

The Bank reorganizes the university's various accounts using a resource productivity methodology. We see the Bank as accounts into which we deposit the funds earned in pursuit of the university's mission and out of which we disburse the funds that support these missions. We use the bank to understand the characteristics of our colleges' costs and productivity and to measure improvement.

Some of us are net contributors to this Bank; we generate more money than we spend. Others of us use more money from the bank than we generate. In total, however, our Bank balances at the end of the year. If we spend more than we generate, we withdraw funds from prior-year savings to cover the deficit. If we generate a surplus, we carry forward funds for future use. We make the equivalent of loans when we invest in a project that may eventually turn out to be a success through a patent or license or through the generation of new student enrollment. The Bank serves all of us, and we should all understand clearly how to use the Bank to achieve our missions.

Everyone's mission depends on the Bank. Many of us do not like to think about the university in this way, believing it much too mechanistic for an institution concerned with knowledge, wisdom and information. Most of us would prefer that issues of money would disappear, leaving us free to focus our attention on other, more intellectually challenging matters. In truth, however, we cannot expand a department, create a major, fund a grant, build a building, renovate a laboratory, award a fellowship, or maintain a walkway without engaging the issue of money. The choices we make about the things we do depend on decisions we make about money. When we engage in a comprehensive conversation about the university's finances, we gain the opportunity to make the best use of our resources. Almost all priorities in the university come back, eventually, to the budget that allocates the money. We can invest in creating and sustaining quality by managing our costs and increasing our productivity.

The Bank establishes a balance between earned income and actual expenses for each college. Some colleges earn more than they spend and other colleges spend more than they earn. While we balance across the university, we need to increase the surpluses and reduce the deficits in each college. The Bank balance focuses on the state teaching and research budget because these represent the largest component of the university's discretionary dollars.

State Revenue and Tuition

The state dollars and tuition earned on the basis of student-credit hours and spent for teaching and research come to the university as a result of historical and current-year appropriations. In some years the legislature calculates its budget one way, and in other years, another. The amount appropriated to the university depends on an enrollment plan, an enrollment funding methodology, and occasional special legislative

appropriations. The basic methodology used to construct the state appropriation to the university relies on a historical, cost-to-continue approach. Cost-to-continue takes the past year's budget as a base and calculates what it will cost to continue that level of work. The state then determines the additional work, primarily new student credit hours, the university needs to do and appropriates funds at whatever new rate per credit hour seems appropriate in that budget year. The final budget, then, is the sum of the historical cost-to-continue calculation and the new funding for new work calculation. The next year, the budget captures all of the previous year's appropriation into the cost-to-continue base.

Each year the legislature funds new work often using a different methodology than the year before. It does not recalculate previous funding, but adjusts last year's dollars to get the cost-to-continue level before adding in the new dollars. However calculated in the past or distributed before, the legislature and the Board of Regents delivers most of the state dollars in lump sums to the university. In turn, the university assumes responsibility for the effective use of these funds to produce the teaching, research, and other activities within its mission. The majority of this budget comes from calculations based on the student credit hours included in an enrollment plan, and the university's state and tuition budget depends on our ability to deliver those credit hours. The effective management of these state dollars requires us to understand clearly how we earn them. The Bank translates this cost-to-continue budget into a productivity budget.

Course Type and Size		Weight
Correspondence		0.33
Other		1
Lecture/Discussion/TV/Lab	>120	1
"	61-120	1
"	31-60	2
"	1-30	2
Clinical 1		12
Clinical 2		16
Clinical 3		20
Supervised Resch/Teach/Individ Study		6
Thesis/Dissertation		30

Teaching Productivity

We begin this translation by weighting our teaching to reflect differential costs and incentives for instruction. To encourage increased graduate enrollment, the Bank weights thesis and dissertation student credit hours heavily. To reward small classes and individual instruction we give them a higher weight than large classes. These weights reflect a judgment about teaching cost and incentives, not a scientific weighting driven only by cost.

To then arrive at the amount of revenue a college earns from its teaching, we calculate the average income per weighted credit hour earned by the university. Each college's earned revenue from teaching is the result of multiplying its total weighted credit hours by the income per weighted credit hour. The college's balance on state dollars come from subtracting the dollars spent from the dollars earned by teaching.

The college balances vary from surpluses in the Liberal Arts and Sciences (LAS) to deficits in Medicine, for example. A college

TEACHING AND RESEARCH **INCOME** *MINUS* TEACHING AND RESEARCH **EXPENSES** *EQUALS* **BALANCE**

Units	Teaching and Research Money **Earned**	Teaching and Research Money **Spent**	**Balance** on Teaching and Research Money
University	$243,021,293	$243,021,293	$0
Architecture	$6,539,315	$6,916,787	($377,472)
Business	$12,694,565	$16,082,175	($3,387,610)
Education	$13,701,561	$8,552,832	$5,148,729
Engineering	$31,814,101	$30,826,268	$987,833
Fine Arts	$7,049,052	$7,207,562	($158,510)
Health & Human Perf.	$7,900,729	$4,221,238	$3,679,491
Journalism	$5,479,605	$4,964,699	$514,906
Law	$3,999,488	$12,140,863	($8,141,375)
LAS-Humanities	$26,012,711	$16,945,579	$9,067,132
LAS-Nat & Math	$30,990,806	$30,407,237	$583,570
LAS-Social Sci	$18,696,158	$13,288,421	$5,407,736
Dentistry	$8,763,317	$11,119,538	($2,356,221)
Health Professions	$5,341,364	$5,656,289	($314,925)
Medicine	$20,629,177	$33,049,814	($12,420,637)
Nursing	$9,053,283	$4,237,802	$4,815,481
Pharmacy	$3,955,772	$6,006,715	($2,050,943)
Veterinary Med	$7,022,583	$11,161,147	($4,138,564)
IFAS-I&R	$17,020,411	$13,312,216	$3,708,195
Other Units	$6,357,293	$6,924,111	($566,818)

generating a deficit is, of course, balanced by a college generating a surplus on state dollars. In total, the university balances on its state accounts.

We expect some colleges to generate surpluses and some to generate deficits. The university provides quality instruction in all areas of its mission, whether it is a surplus or deficit generator. Some colleges have a lower-division mission with large classes while other colleges have an upper-division mission with smaller classes. Some colleges should generate a surplus to support the activities of other colleges who generate a deficit. The university's productivity budget uses the Bank to focus on increasing surpluses and reducing deficits. We gain nothing for the university by transferring money from one college to another. Instead we improve effectiveness in all colleges, and we allocate new dollars in ways that reward the increased productivity of some colleges and the sustained productivity of other colleges.

University Assignment of 100% Faculty Effort		Bank Allocation of 100% Faculty Effort	
Gómez, José	**Assignment (100%)**	**Teaching Effort**	**Research Effort**
Teaching Assignment	**70%**	**70%**	
Research Assignment	**20%**		**20%**
Advising (All to Teaching)	**5%**	**5%**	
Service	3%		
Administration	1%		
Governance	1%		
Sub-total	**5%**		
Allocate **Sub-total** proportional to Teaching		**4%**	
Allocate **Sub-total** proportional to Research			**1%**
Reallocate **10%** of Research to Teaching		**+10%**	**-10%**
Bank Allocation of 100% Faculty Effort to Teaching and Research		**89%**	**11%**

Teaching and Research Costs

The Bank depends on an analysis of our two primary products: teaching and research. Everything we do exists because we assemble our faculty to deliver teaching and research. We assume that everything the college does contributes in some way to teaching or research. This means that service or governance or administration, for example, contributes to or is a product of our teaching and research mission. On that basis, we allocate the cost of service activities, college level administration, college academic advising, and the like to either teaching or research.

We also believe that the fundamental focus of our productivity is on the faculty. Many others in the university contribute extensively to the productivity and effectiveness of the faculty in producing teaching and research, but all of us who do so represent a cost of supporting faculty effort. Faculty members owe the university 100% of their effort, and every faculty member has an assignment that allocates that 100% effort to the university's various tasks: teaching, research, advising, service, administration, or governance. We combine the teaching and advising effort into teaching effort, and we allocate service, administration and governance to teaching and research. We also reallocate up to 10% of a faculty member's research effort to teaching to represent the scholarly work required to maintain first class teaching preparation. The example of Professor José Gómez above illustrates this effort assignment.

The Bank sums the cost of faculty effort for each college and creates an accounting of faculty research and teaching expenditures. This calculation simply multiplies the percent effort on teaching by the total expenditures of the college to get the cost of teaching; and it then multiplies the percent effort on research by the total expenditures of the college to get the cost of research.

The Bank expresses productivity in terms of faculty effort and money. Because the Bank allocates all faculty effort, colleges can improve their position in the bank by improving the productivity of their teaching, the productivity of their research, or both. They can also improve by reducing their expenses or by generating more income from gifts and grants. While simple in theory, in practice, the reallocation of faculty effort requires careful planning and effective leadership by deans and department chairs. By accounting for all faculty effort, the Bank gives deans and their faculty the tools to allocate their effort where it produces the highest productivity and quality. The Bank's reliance on faculty effort to allocate costs emphasizes the importance of faculty productivity in generating the university's quality. Faculty are the primary asset of the university, and so the Bank understands productivity in terms of the investment in the faculty's effort.

Research Productivity

Even though sponsored research understates the total of faculty research productivity, it serves as a

reasonable estimate widely used throughout the academic community. We expect that overall the University of Florida will generate at least three sponsored research dollars for every state appropriated/tuition dollar spent on research.

To measure research productivity, we take the state expenditures on research calculated from our analysis of faculty effort and our allocation of costs. We next add a column that shows the sponsored research expenditures from each college. Then we compare the state cost of research to the expenditures from sponsored research. Our institutional minimum goal is three sponsored research dollars for every state dollar. The balance column shows what each college contributes towards the university's over achievement of that goal. We expect some colleges to outperform the university average by a substantial margin. As is the case with our teaching productivity data, we use these numbers to help colleges improve their research productivity.

Units	**State Research Expenditures**	Minimum **Sponsored Research Productivity** at 3*State Research Expenditures	Total **Sponsored Research Expenditures** Including UFRF	**Over/Under Achievement** of Minimum Research Productivity
University	$36,967,247	$110,901,740	$190,955,420	$80,053,680
Architecture	$0	$0	$1,934,499	$1,934,499
Business	$1,066,665	$3,199,994	$1,261,488	($1,938,506)
Education	$0	$0	$2,546,753	$2,546,753
Engineering	$4,191,839	$12,575,518	$35,136,302	$22,560,784
Fine Arts	$44,698	$134,095	$32,352	($101,743)
Health & Human Perf.	$0	$0	$552,082	$552,082
Journalism	$62,472	$187,416	$1,850,210	$1,662,794
Law	$611,217	$1,833,650	$149,364	($1,684,286)
LAS-Humanities	$858,391	$2,575,173	$1,070,785	($1,504,388)
LAS-Nat & Math	$4,778,641	$14,335,924	$13,450,605	($885,319)
LAS-Social Sci	$1,046,012	$3,138,035	$2,089,120	($1,048,914)
Dentistry	$274,502	$823,506	$4,748,554	$3,925,048
Health Professions	$336,433	$1,009,300	$1,462,751	$453,451
Medicine	$15,385,672	$46,157,015	$59,915,523	$13,758,508
Nursing	$0	$0	$824,943	$824,943
Pharmacy	$2,358,774	$7,076,321	$5,588,313	($1,488,008)
Veterinary Med	$2,281,508	$6,844,525	$4,767,836	($2,076,689)
IFAS-I&R	$0	$0	$1,505,124	$1,505,124
Other	$3,670,423	$11,011,269	$52,068,816	$41,057,547

Productivity Summary

As a final summary of productivity the Bank uses three measures chosen to reflect the institution's primary discretionary income: state and tuition dollars based on credit hours and private gifts and grants. The three summary indices show independent views of faculty productivity in teaching, sponsored research, and fundraising.

The ***teaching index*** shows weighted credit hours per ranked faculty *personyear*. This is an index to the relative productivity of the colleges' faculty in producing the university's instruction. In our environment, a *personyear* is the same as a full-time, 12-month faculty member. The ***sponsored research index*** measures the relative productivity of the colleges' faculty in generating sponsored research funds. This index serves as a rough measure of research productivity, but it does not capture all the research productivity of the faculty. The ***fundraising index*** shows the relative productivity of the colleges' faculty in generating private support for teaching and research.

These indices do not include revenue from auxiliary enterprises (sports, housing, parking, and the like) or special categories of earned revenue from the Institute of Food and Agricultural Sciences (IFAS) and the College of Medicine. In the case of IFAS, we did not include the state support of agricultural research and extension because this enterprise operates much like an auxiliary enterprise, receiving funds for a specific purpose and spending all of the funds on that purpose. In the case of Medicine, we did not include the clinical enterprise

Units	Teaching Productivity: Weighted SCH	Research Productivity: Sponsored Research	Fundraising Productivity: Private Resources
University	1,102	$69,649	$17,387
Architecture	1,349	$32,076	$26,057
Business	2,145	$17,135	$31,707
Education	2,345	$35,041	$2,210
Engineering	2,020	$179,404	$12,829
Fine Arts	1,451	$535	$9,234
Health & Human Perf.	3,153	$17,718	$7,336
Journalism	1,769	$48,032	$51,012
Law	1,145	$3,437	$29,689
LAS-Humanities	2,359	$7,808	$5,188
LAS-Nat & Math	2,028	$70,780	$3,744
LAS-Social Sci	2,173	$19,526	$6,650
Dentistry	1,061	$46,237	$4,566
Health Professions	1,449	$31,903	$788
Medicine	359	$83,818	$10,423
Nursing	1,941	$14,223	$3,402
Pharmacy	931	$105,779	$17,917
Veterinary Med	924	$69,858	$10,717
IFAS-I&R	2,435	$15,924	$0

revenue or expenses because it too operates as a separate self-supporting enterprise.

These indices invite us to compare one college to another. This misses the point of the productivity model. Each college primarily competes against itself, and attempts to improve its own productivity. If a college increases productivity at the expense of another college in the university, the institution is no better off than before. The Bank supports incentives to increase the university's total productivity.

Budget Allocation Using the Bank

The budget adjustment process defines the utility of the Bank. Every university has a baseline requirement for educating students and doing continuing research that consumes the largest portion of its budget. When we manage a university to enhance productivity and quality, we focus on the reallocation of the university's marginal discretionary dollars each year. These marginal dollars come from new revenue, from productivity improvement, and other sources. For universities, most budgetary incentives reside at the margin of the university's core activities. The Bank provides the data to inform reallocations and incentives from this discretionary marginal money. Each year the university can reallocate some continuing dollars and allocate new dollars that come into the university. In managing the margin, the university exercises one of its primary incentives. We ensure that every college can keep the money it saves in managing its internal affairs over the year. Often in public enterprises managers know that surpluses at the end of the year disappear into a central account. Managers then spend their budgets completely by the end of the year. We ensure that any surplus from cost savings stays in the college so that the dean and the faculty and staff will have every reason to create savings to reinvest in the quality of their programs. This is a powerful and effective incentive.

We evaluate each college for its productivity in teaching, research, and fundraising, using the Bank indices. In evaluating this productivity, we look at the college's work, we review the detail underlying the indices, and we make a judgment about whether the college could be doing more that it is. If we have comparative data from FQEP on these issues of productivity, we use that as a reference. If we do not, we use the best comparable data we can find along with our own experience in managing university affairs. In most cases, the university seeks to increase enrollment to meet its plan. If we believe a college can do more, we reflect that in the allocation of marginal new money. When a college can improve its productivity, we will ask that college to provide more instruction and do more research and fundraising in return for a smaller increase in its budget than we would for a college already at its peak of productivity.

We evaluate each college for its quality based on data from FQEP and whatever other sources we have available (surveys, national rankings, accreditation reviews, program reviews). For colleges with high productivity and high quality we assign a bank reward, which is a discretionary sum that becomes part of the college's continuing budget to be used at the discretion of the dean for quality improvement. The level of this reward is a function of the level of quality and, of course, the size of the

college since everything we do is referenced to productivity per faculty member.

In this process the provost works closely with each dean to understand the Bank's data and to create a budget that enhances the college's performance and quality. Each college's circumstances will be different, but all colleges work within the same framework defined by the productivity measures of the Bank and the quality measures of FQEP. As we work with the Bank framework, our understanding of productivity and our comparative data on quality will improve.

Most of our attention focuses on the core budget driven by state appropriations for teaching and research because these represent the primary discretionary budget of the university and the management of these funds tends to determine the success of the university elsewhere. We manage other enterprises ranging from intercollegiate athletics to student housing, from the bookstore to the computing center, from seed cooperatives to the alumni association, and including the university's major fundraising organization, the University of Florida Foundation. All of these organizations operate budgets on a breakeven or better basis. We expect these units to perform their missions at the highest levels of productivity, we benchmark their performance, and we look for them to generate margins for reinvestment in improved quality. We account for all of these units in the Bank and we benchmark all of them in FQEP.

We also have academic and administrative support units funded from appropriated funds based on a variety of formulas and methods. They provide the infrastructure and academic support needed to deliver instruction and research. We evaluate support units such as Administrative Affairs, Student Affairs, the Registrar, Financial Aid, by the quality and productivity of their support operations. They participate in the benchmarking program of the Florida Quality Evaluation Project, and develop specific measures of productivity and customer satisfaction.

This, then, is the University of Florida Bank. The Bank provides a clear indication of how we generate our state appropriated dollars, how we spend those dollars on teaching and research, and how well we meet the minimum research productivity requirements we have set for ourselves. It provides a clear recognition of contributions our colleges make to the general university budget through sponsored research and other non-state funds. Its data inform a system of quality and productivity incentives, and it offers a starting point for discussion and planning for the university's budget.

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