PMID	TITLE	AUTHORS	JOURNAL/BOOK	PUBLICATION YEAR	SUMMARY	CATEGORY	TYPE
19116472	A Simple Model to Optimize ResourceAllocations When Expanding the FacultyResearch Base: A Case Study	Keith A. Joiner, MD, MPH	Acad Med	2009	Construction of new biomedical researchfacilities has outpaced the fundingsources for faculty to occupy thosefacilities. This puts a premium on theefficient allocation of central resourcesfor faculty recruitment. The authordeveloped a mathematical model todetermine the optimal structure (dollars,space) for allocating resource packageswhen recruiting new faculty, based onexpected financial returns from thosefaculty. Surprisingly, the optimal strategywas to allocate homogeneousrecruitment packages, independent ofthe recruited faculty member's rank orthe individual's expected revenuegeneration. Optimization results wereused to allocate recruitment packages tonew department head and center directorsin the University of Arizona College ofMedicine during the last four years (2005–2008). At any institution that uses thismodel, appropriate distribution of facilitiesand administrative revenues at theinstitution is needed to equitably balancethe costs and benefits associated withfaculty expansion.	distribution of space salary expectations	data driven
	CHERI Survey of Start-Up Costs and Laboratory Allocation Rules	Cornell Higher Education Research Institute	Cornell Higher Education Research Institute	2002	During the late spring of 2002, the Cornell Higher Education Research Institute (CHERI) conducted a survey on start-up costs and laboratory allocation rules at research and doctorate universities in the United States. CHERI has plans to sponsor a conference at Cornell in May 2003 on the implications of the growing importance of scientific research for universities.[1] This survey provided background information on two important aspects of universities' costs of scientific research, namely the start-up costs that the institutions incur for new faculty at both the junior and senior levels and the laboratory space allocation rules that the institutions follow. The latter are particularly important as many scientists and engineers are approaching ages when they might consider retiring and the promise of being able to "keep" their labs after retirement may be a powerful tool to encourage them to retire. Such promises, however, may also prove to be extremely costly for universities.	distribution of space distribution of institutional resources	data driven
2913798	Allocating research space in the university medical center: use of a mathematical formula	S S Solomon, S C Tom	Am J Med Sci.	1989	Allocation of research space often is one of the most emotional and contentious issues facing a university medical center. With decreasing dollars available for building new research laboratories in medical schools, the assignment of laboratory space to basic science and clinical departments presents a difficult problem for deans, chairmen, and faculty. In this article, the authors outline a formula in which net square feet of traditional research space (ie, wet-bench laboratories) may be allocated on the basis of research dollars, output of manuscripts and abstracts averaged over 3 years, and the number of personnel who will use the space. Caution is urged for arbitrarily applying a space formula when it does not apply, ie, nontraditional research, and when insufficient consideration has been given to the individual case. The formula is most useful when applied within a specific institution and primarily for comparative purposes. Nonetheless, once the formula is established, it provides an objective mechanism by which the need for space and the relative merits of space assignments within a department or among departments can be more effectively determined and managed.	distribution of space	data driven
9192591	Assessing facility and space resources in an academic health science center: a process that works	R P Maurer Jr, D M Shaw	Best Pract Benchmarking Healthc.	1996	Background: The authors served as external consultants to an academic health science center in the eastern United States to identify current and future space needs in response to reported deficiencies, especially in the medical school. This work established a framework to identify, prioritize, and plan future facility and space improvement projects. Methods: The authors used several methods to quantify and profile current space needs and future space requirements, including data and plan reviews, surveys and questionnaires, and on-site facility tours and inspections. Most important, the consultants brought their collective experience as well as their proprietary planning database and guidelines to formulate findings and develop practical recommendations. Results: The engagement substantiated faculty's concerns and perceptions that additional space was necessary for many existing programs, especially the medical school. However, specific space needs, by department or program, frequently differed from faculty's perceived needs as well as those of the university administration. Conclusions: Several important conclusions dealt with the client's need to develop and formalize the space planning and management process. Appropriate guidelines for space planning purposes for this academic health science center also were identified as were the "next steps" to build on this successful study.	distribution of space	data driven
18316864	A comprehensive space management model for facilitating programmatic research	Ann Libecap, Steven Wormsley, Anne Cress, Mary Matthews, Angie Souza, Keith A Joiner	Acad Med.	2008	In FY04, the authors developed and implemented models to manage existing and incremental research space, and to facilitate programmatic research, at the University of Arizona College of Medicine. Benchmarks were set for recovery of total sponsored research dollars and for facilities and administrative (F&A) dollars/net square foot (nsf) of space, based on college-wide metrics. Benchmarks were applied to units (departments, centers), rather than to individual faculty. Performance relative to the benchmark was assessed using three-year moving averages, and applied to existing blocks of space. Space was recaptured or allocated, in all cases to programmatic themes, using uniform policies. F&A revenues were returned on the basis of performance relative to a benchmark. During the first two years after implementation of the model (FY05 and FY06), and for the 24 units occupying research space, median total sponsored research revenue/nsf increased from $393.96 to $474.46 (20.4%), and median F&A revenue/nsf increased from $57.42 to $91.86 (60.0%). These large increases in median values are driven primarily from redistribution and recapturing of space. Recruiting policies for unit heads were developed to facilitate joint hires among units. In combination, these policies created a comprehensive space management model for facilitating programmatic research. Although challenges remain in implementing the programmatic recruitment strategy, and selected modifications to the original policy were introduced later (e.g., research space for newly recruited junior faculty is now exempted from calculations for three years), overall, the models have created a climate of transparency that is now accepted and that allows efficient and equitable management of research space.	distribution of space	data driven/program evaluation
18728439	Supporting the academic mission in an era of constrained resources: approaches at the University of Arizona College of Medicine	Keith A Joiner, Ann Libecap, Anne E Cress, Steve Wormsley, Patricia St Germain, Robert Berg, Philip Malan	Acad Med.	2008	The authors describe initiatives at the University of Arizona College of Medicine to markedly expand faculty, build research along programmatic lines, and promote a new, highly integrated medical school curriculum. Accomplishing these goals in this era of declining resources is challenging. The authors describe their approaches and outcomes to date, derived from a solid theoretical framework in the management literature, to (1) support research faculty recruitment, emphasizing return on investment, by using net present value to guide formulation of recruitment packages, (2) stimulate efficiency and growth through incentive plans, by using utility theory to optimize incentive plan design, (3) distribute resources to support programmatic growth, by allocating research space and recruitment dollars to maximize joint hires between units with shared interests, and (4) distribute resources from central administration to encourage medical student teaching, by aligning state dollars to support a new integrated organ-system based-curriculum. Detailed measurement is followed by application of management principles, including mathematical modeling, to make projections based on the data collected. Although each of the initiatives was developed separately, they are linked functionally and financially, and they are predicated on explicitly identifying opportunity costs for all major decisions, to achieve efficiencies while supporting growth. The overall intent is to align institutional goals in education, research, and clinical care with incentives for unit heads and individual faculty to achieve those goals, and to create a clear line of sight between expectations and rewards. Implementation is occurring in a hypothesis-driven fashion, permitting testing and refinement of the strategies.	distribution of space search committee composition, implicit bais training, policies distribution of institutional resources	program evaluation