CHAPTER 3. NJIT INSTITUTIONAL RESOURCES

STANDARD ADDRESSED: This chapter addresses Standard 3 of the Characteristics of Excellence in Higher Education: Institutional Resources.

EXECUTIVE SUMMARY: NJIT has the human, financial, technical, and physical facilities necessary to achieve its mission; these resources are available and accessible. In the context of NJIT’s mission, effective and efficient use of the university’s resources has been integral to ongoing outcomes assessment. In a national and international environment of financial uncertainty, NJIT’s institutional resources—coordinated by Henry Mauermeyer, Senior Vice President for Administration and Treasurer—have been efficiently managed by a notably effective team.

INTRODUCTION: Adhering to the institutional framework defined in the Characteristics of Excellence in Higher Education, NJIT has, despite on-going financial challenges, prudently managed human, financial, technical resources and physical facilities necessary to support the university’s mission. Effective and efficient use of the university’s resources is analyzed according to a defined budget workflow process that is integral to the university culture of ongoing outcomes assessment.

The detailed NJIT operating budget is conservatively developed and considers many internal and external factors. These factors include enrollment expectations, residence hall occupancy, tuition/fee rates, financial aid needs, labor agreements, state funding, non-personnel inflation, strategic initiatives, federal, state, and other grant funding, unrestricted giving, and investments. Early recognition of factors impacting the budget permits senior administration to develop revenue and expense alternatives. Annual budget requests are displayed on budget development scorecards for ongoing discussion by senior administration. Initially, budget requests exceed available resources, so the review process is continual until a balanced budget is achieved. In late spring there is an initial review by the Audit and Finance Committee of the Board of Trustees. Ultimately, proposed operating and capital budgets are submitted to the Board of Trustees for approval at their July board meeting. Afterwards, the budgets are continually monitored for any internal or external conditions that may impact the overall budget. Any potential issues are identified and resolved in consultation with senior administration. The Board of Trustees continues to receive periodic budget updates at its regularly scheduled meetings.

Capital projects recently completed, or currently planned, include the restoration of recently purchased Central High School, the Naimoli Family Athletic and Recreational Facility, the Greek Village and Residential Dorman Honors College, which represents the initial phase of the NJIT Campus Gateway project.

RESOURCE DEVELOPMENT AND ALLOCATION PROCESS: NJIT follows a budget resource development and allocation process that facilitates clear funding identification and assessment of operational results. This process is conducted on an on-going basis and is closely linked to strategic planning.

The budget workflow process, with its focus on strategic planning and emphasis on iterative review by a variety of shareholders, has proven enormously effective. The NJIT resource allocation process, with approval from the Board of Trustees, has achieved the following aims: to assess and determine how
best to develop and allocate resources that support accomplishing the university’s strategic objectives; to conduct a campus-wide budget briefing in early July to inform the community of major operating budget considerations prior to official Board of Trustee review and action; to determine the financial, human and facility requirements to achieve the operational effect; to conduct operations on an annual basis within available resources; to assess outcomes of operational programs, processes and financial results on an on-going basis; and to communicate results to the university community and constituency.

The dramatic decline in the world economy during 2008-2009 did, however, adversely impact the University’s endowment. Endowment investments totaled $57.7M at June 30, 2009 reflecting a loss of $14.5M (20.2%). However, over the past two years, the endowment has increased by 30.9% ($17.8M) and totals $75.6M at June 30, 2011, reflecting realized investment gains, fair value increases, and new gifts. As the June 30, 2010, Financial Statements’ Management’s Discussion and Analysis noted, “The University’s endowment is prudently managed, with a broad-based asset allocation. A group of managers, each focused on their sector of the asset allocation, limited exposure to sub-prime investments, and use of alternative investments, including timber, to implement the investment strategy have, to date, been reasonably effective given the overall market conditions.”

A TEN YEAR FINANCIAL HISTORY OF NJIT: Over the past ten years, total operating resources, (per annual financial statements) have increased to $301.2M for FY2011, a growth of $99.0M, or 49% from FY2002. Over this ten year period, as Figure 3.0 shows, base state appropriation support has declined by $13.2M (-25%) while state support for employee fringe benefits has increased by $11.2M (72%) resulting in a $1.9M (-3%) overall reduction in state funds. Total state support currently represents approximately 22% of total operating resources, compared to 34% a decade earlier.

Figure 3.0. NJIT Financial History, 2002 to 2011 [Operating Resources in Millions]
Over this same period, tuition and fee revenue has increased by $57M (88%). This increase is due to a combination of enrollment growth and rate increases. As Figure 3.1 shows, tuition and fees represent approximately 40% of total FY11 revenue sources, compared to 32% ten years earlier. FY11 total revenue is $301.2M. Substantial growth ($32M, or 64%) in federal, state and other grants occurred over these past ten years. This growth was attributable to the Strategic Plan, 2004-2010 objective of increasing external sources of revenue. Auxiliary enterprises (residence halls, bookstore, food services and parking) revenue has increased by $6M (67%), primarily due to the increase in on-campus housing from 1146 to 1663 beds. This initiative was a FY04–FY10 strategic plan objective. An additional 600 beds are planned as part of the Gateway initiative. Over this ten year period, growth in federal, state, and other grants total $15.9M, or 42%. This growth is consistent with the strategic objective of increasing external grants and contracts.

Figure 3.1. NJIT Revenue Sources, 2002 to 2011[Revenue Sources in Millions]

The majority of expenditures at NJIT continue to be academic and research related, supporting the primary mission of the university. Academic and research expenses have increased from $125M in FY2002 to more than $160M in FY2011, a growth of 28%. To support strategic objectives related to Athletics, the Albert Dorman Honors College and other high achieving or need-based students, scholarship and fellowship expenses have increased by 120% since FY2002, from $20M in FY2002 to $44M in FY2011. Over the same period, support expenses (facilities, administration, and fund raising) have increased by $7M (18%).

As part of on-going fiscal planning, the University Budget Office prepares multiple year budget models. These models start with base data and project unrestricted operating budget as well as Statement of Revenues, Expenses, and Changes in Net Assets incorporating historical trends and future estimates. These models consider numerous planning assumptions, including salary program, enrollment, research, inflation, state funding, fringe benefit rates, fundraising, and strategic plan objectives. The models can be quickly modified to analyze the resulting budget impact. Revenue and expense assumptions are conservative, but realistic, especially given the current economic climate.

**FACILITIES AND MAINTENANCE:** Capital project funds to support facility repairs, maintenance, technology, and minor facility improvements are initially identified and funded from the base operating budget. Every year a list of capital projects is presented to senior staff to review and to
prioritize. The most immediate needs are addressed first. These types of projects encompass, for instance, roof replacements, HVAC maintenance, updated computer labs and servers, classroom fixtures and furniture, and elevator maintenance. This list of funded capital projects is also included in the annual budget presentation to the Board of Trustees.

On the NJIT campus, major facility construction/renovation projects have been funded from multiple sources including: State bonds, NJIT bonds, private gifts, and operating reserve funds. Most recently, as part of a bond refinancing, an additional $20M was borrowed to purchase and begin renovating Central High School. At that time, Moody’s Investors Service, Inc. and Standard & Poor’s Rating Services affirmed their municipal bond ratings of “A1” and “A+,” respectively.

Progress on campus development has been on-going at NJIT, and follows the Facilities Master Plan updated in 2008. The NJIT campus encompasses more than 45 acres with 30 buildings containing approximately 2.9 million gross square feet with a current replacement value of $906M. Of the total building space, approximately 80% was constructed after 1965. The past ten years witnessed renovation of the Campus Center, Fenster Hall, and Eberhardt Hall.

Outside of New Jersey, management of the Big Bear Solar Observatory in Big Bear Lake, California, and a dedicated array of solar radio telescopes at Owens Valley Radio Observatory in Owens Valley, California, became the responsibility of the Center for Solar-Terrestrial Research at New Jersey Institute of Technology effective July 1, 1997 under a lease for the land and buildings until the year 2048. With significant upgrades in equipment, instrumentation, and a new telescope, the observatories and equipment are now valued at approximately $12M.

NJIT recognizes the importance of facility environmental performance over its life cycle in order to conserve energy and protect the environment. To achieve this mission NJIT employs many types of efficiency strategies to foster a green campus environment. One way to meet this goal is through on-site power generation, which was made possible by rebate funding from the NJ Board of Public Utilities. NJIT strategic planning also calls for the improvement of the exterior of facilities to conserve energy by optimizing building shading, insulating exterior walls and roofs, and limiting glazing area to 25% window-wall ratio wherever possible. In 2010 the university received $1.7M in Federal American Recovery and Reinvestment Act funds for green initiatives to be put in place for Oak Residence Hall. As part of this initiative, NJIT utilized solar technologies to replace gas as the primary source of hot water for cooking, showering, and laundry. To improve electricity efficiencies, regenerative elevator technology that captures energy generated when an elevator descends or rises was employed, and electronic ballasts were put in place to improve lighting efficiencies for common areas with the most advanced fluorescent technology.

THE ROBERT W. VAN HOUTEN LIBRARY: In Middle States reviews of both 2002 and 2007, resource allocation to the Van Houten Library presented the same challenge in institutional resource allocation faced by post-secondary institutions across the country. However, the total library budget increased by $1M and now represents 2.1% of the general operating budget (which excludes student awards and mandatory transfers) compared to 1.9% 10 years earlier. Salary increases of 52% ($0.7M) and non-personnel increases of 26.7% ($0.3M) occurred over this period. It is important to emphasize
this gain in light of the 2007 periodic review report’s recommendation that the library staff draw up a plan for adding 5,000-7,000 new book titles annually to the over 170,000 books presently in the library and present that plan to the faculty and administration for their consideration and possible implementation. While that list was established, the critical maintenance and growth of databases for a research university—coupled with enhanced efforts to increase inter-library loan efficiency, collaborative efforts with Dana Library at Rutgers-Newark, and increased attention to eBook purchases—addressed the need for more books. (An analysis of the Robert W. Van Houten Library is provided in Chapter 1.)

Establishing a browsing library of books did not align with the NJIT research mission. Keeping pace with the rising costs of digital databases seemed a more appropriate use of resources. Full text databases remain the main focus of library purchases. Access to scientific, engineering and other journals continues to be a key resource that the library provides to the NJIT academic community. The Van Houten Library continues to meet the informational needs of its shareholders.

Present plans to increase library funding include the Knowledge Services Center initiative. Funding would come from a proposed general obligation bond issue anticipated to appear on the November 2012 General Election ballot seeking the approval of New Jersey residents. The construction, if funded, will provide a new learning environment including provisions for group projects utilizing current technologies. The innovative ways in which learning has evolved require new collaborative spaces, furniture, interactive learning technologies, and the integration of their mobile technologies. The Knowledge Services Center initiative will then become the NJIT campus test-bed for independent and peer-to-peer learning outside of the classroom. This initiative, projected at a cost of $18M, is one of $225M that NJIT has proposed to enrich the campus environment.

INDEPENDENT REVIEW OF INSTITUTIONAL RESOURCES: An independent auditing firm (currently KPMG LLP) annually audits the university financial statements with results discussed with senior administration and the Audit and Finance Committee of the Board of Trustees. There is an executive session with the auditors and Audit and Finance Committee prior to the report being submitted to the entire Board of Trustees. The firm’s unqualified opinion consistently recognizes that the financial position of New Jersey Institute of Technology and the changes in its financial position and its cash flows are in conformity with U.S. generally accepted accounting principles with no material weaknesses indicated (KPMG LLP, NJIT, 2003-2011). To enhance reporting, financial data are provided to the Office of Institutional Research and Planning for inclusion in annual IPEDS and other external reports such as the New Jersey Commission on Higher Education.

CONCLUSIONS: Working Group 2 was charged to determine compliance with MSCHE Standard 3: Institutional Resources. The Working Group found that NJIT had achieved exemplary performance in establishing a financial planning and budgeting process aligned with the institution’s mission, goals, and plan that provides for an annual budget and multi-year budget projections, both institution-wide and among departments; in utilizing planning and assessment documents; and in addressing resource acquisition and allocation for the university and any subsidiary, affiliated, or contracted educational organizations as well as for institutional systems as appropriate. Exemplary performance was also evidenced in NJIT’s annual independent audit confirming financial responsibility.
The Working Group found that the university had achieved emerging excellence in the following areas: strategies to measure and assess the level and efficient utilization of institutional resources required to support the institution’s mission and goals; rational and consistent policies and procedures in place to determine allocation of assets; an allocation approach that ensures adequate faculty, staff, and administration to support the institution’s mission; a comprehensive infrastructure, facilities master plan, and facilities/infrastructure life-cycle management plan informed by the NJIT mission; facilities that are adequately supported and staffed to accomplish the institution’s objectives for student learning; an educational and other equipment acquisition and replacement process and plan, including provision for current and future technology; adequate institutional controls to deal with financial, administrative and auxiliary operations; and periodic assessment of the effective and efficient use of institutional resources.

**STRATEGIES FOR THE FUTURE:** After extensive deliberation on the university’s commitment to providing effective and efficient use of institutional resources, NJIT has identified the following areas of improvement. These two areas will be integrated into the strategic planning process:

1. NJIT will improve awareness of processes associated with tracking, monitoring, and reporting budget allocations that impact human resources, technological resources, and facilities;
2. NJIT will improve awareness of processes associated with use and allocation of key research, educational, recreational, and administrative space.