

Trends in Rutgers budget priorities and allocations

Budget and Finance Committee, Rutgers University Senate

January 24, 2025

Summary:

WHEREAS, the Rutgers Senate Budget and Finance Committee (BFC) has a Standing Charge¹ to:

“... concern itself with all matters related to budget priorities, allocations and general planning ... these responsibilities include, but are not limited to, the following:

“To select and study policy issues associated with the University’s budget, including priorities and allocation of funds, and to develop recommendations to the Senate ...”

WHEREAS, budgetary data for Rutgers University over the past 9 years unambiguously document that the largest expense Unit (Central) has grown significantly, with some categories more than doubling over that time frame;

WHEREAS, within the Central Unit, these data also document that the largest reduction in costs over that time frame – about \$11 million – has been from the Libraries, while a comparable increase went to the office of the Executive Vice President for Academic Affairs;

WHEREAS, these data also document that the most influential increases in Rutgers’ non-medical expenses involve management and athletic units, which have seen increases of over \$160 million in real, inflation-adjusted, dollars over the past 9 years;

WHEREAS, these same data document that the most influential decreases in Rutgers’ non-medical expenses over the same time period involve academic and dining units, which have been cut in real dollars by over \$140 million; and

WHEREAS, this manifestly unsustainable situation has contributed to hardship and attrition among faculty, staff, students and parents; now therefore, be it

RESOLVED that the President, and the Rutgers Community, take note of these financial trends; and

RESOLVED that the President instruct responsible University officers (e.g. Treasurer & Chief Budget Officer) to reverse the strategic direction of growth, so that academics are prioritized over non-academic initiatives; and

RESOLVED that the President and responsible Officers develop a budget to compensate academic Units on an expedited schedule for the cuts that they have suffered over at least the past decade; and

RESOLVED that the responsible Officers provide similar data and tools at least annually for future allocation, priority, and planning purposes; and

RESOLVED that the Senate establish a publicly accessible archival database of these budgetary data, along with suitable analytic tools for analysis in the future.

¹ <https://senate.rutgers.edu/standing-committee-charges/>

1. Background:

For this report, the BFC focused on trends in budget priorities and allocations over the past decade. We have analyzed 9 years of budgetary data provided by the University Treasurer and his staff, including revenues and expenses for every Unit, Division, and Organization at Rutgers. We are grateful to the Treasurer and his staff for their dedicated work compiling these data, which represent the best spirit of shared governance.

There is more data now available than can be presented in a single report, so here we restrict ourselves to summarizing recent University budget allocations and assessing trends in growth or shrinkage over the past near-decade.

All data are currently available online²; we recommend that a permanent repository be established for archival reference.

1.1 Current Allocations:

Rutgers classifies its budgetary structure into “Units”, “Divisions” and “Organizations”. As an arbitrary example, the Camden campus Department of Public Policy & Administration is an “Organization,” contained within the Division, “Social Sciences,” which itself is part of the Unit, “Camden Faculty of Arts & Sciences” (CFAS).

Units are the broadest classification: Rutgers currently has 93 of these; continuing this example, CFAS has 14 Divisions, and the Social Sciences Division has 3 Organizations. Consequently, there are far too many categories, each over the past 9 years, to analyze them all in a single report. Moreover, medical schools operate under a different financial model than other schools, and include operationally distinct parts such as the University Correctional Health Care. Moreover, there is a plan to combine medical schools in the near future, which will surely change any trend analysis. In view of these facts, we have chosen to exclude the 30 Units that make up Rutgers’ medical system from this report.

The resulting expenses for Fiscal Year (FY) 2024 are shown in Fig. 1 below.

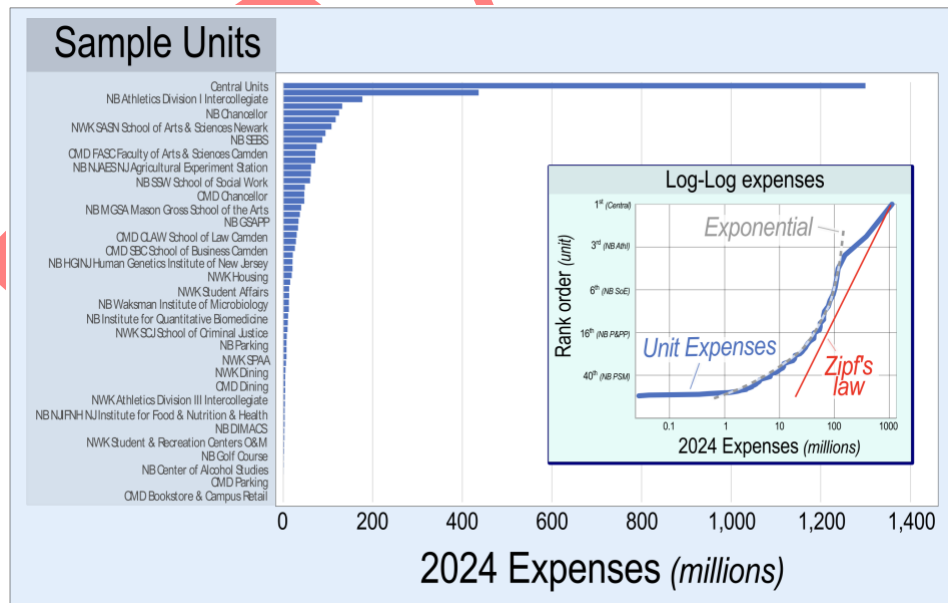


Figure 1 - FY2024 Expenses for Rutgers non-medical units. All units are plotted, but due to font size constraints not all units are listed on the left (see Appendix for all listed units). Inset shows log-log plot of the same data, indicating that units are not organized as one would expect (red line) from interacting groups. Exponential fit is shown as dashed line for comparison.

² <https://rutgers.app.box.com/folder/285739288212?s=ya5yns1xpypeqz5yqtz2olg0tlru3ffn>

From the main plot, we see that Units including Central administration, Division I Athletics, and one of the Chancellors take much larger budget shares than other Units, such as Dining, Division III Athletics, or Bookstores. It is to be expected that Units have different sizes and costs, though the magnitudes of these differences is notable in itself.

In particular, interacting groups ranging from municipalities to companies to individuals are expected to evolve into a “Zipf” distribution, in which the cost grows inversely with the rank order³. This means that the cost of the largest unit should be 10 times that of the 10th largest, indicated as a red line in the inset to Fig. 1. This behavior is exceedingly well grounded, as established for example by the 1978 Nobel Prize in Economics (HA Simon⁴).

In fact, most of the growth in cost is exponential, indicated by the dashed line in Fig. 1, meaning that larger (smaller) Units cost anomalously more (less) than would be expected from established economic models. One cannot make too much of this observation, but at the same time the universality of scaling laws such as Zipf’s in interacting systems is one of the major findings of the past century, and we as academics we should not overlook this. Put another way, the extent to which Rutgers Units do not obey Zipf’s law is a quantitative measure of the otherwise anecdotal observation that Rutgers’ finances are artificially structured, and did not develop through straightforward interaction between Units⁵.

Finding 1: Rutgers’ non-medical unit annual expenses range from tens of thousands to hundreds of millions of dollars according to a mathematical growth law that is not characteristic of an interacting organization.

1.2 Unit revenues and expenses:

Each of the units obtain revenues (e.g. from tuition, grants, and government aid), and spend funds (largely for salaries and fringe; also for operational costs). Revenues are allocated to units through the RCM mechanism described in previous BFC reports^{6,7}. We provide information on this allocation in the following three figures. These figures are useful for providing context, but they are unavoidably dense, and readers interested in take-home messages may want to skip forward to section **2** on **Trends**, and refer back to unit allocation data as needed.

The allocation of revenues and expenses across units is visualized first in Fig. 2 from the same datasets as were used in Fig. 1.

³ Cristelli, M., Batty, M., & Pietronero, L. (2012). There is more than a power law in Zipf. *Sci. Rep.*, 2(1), 812.

⁴ https://en.wikipedia.org/wiki/Simon_model

⁵ Marsili, M., & Zhang, Y. C. (1998). Interacting individuals leading to Zipf’s law. *Phys. Rev. Lett.*, 80(12), 2741.

⁶ S-2010-1: Evaluation of the RCM Implementation at Rutgers, <https://senate.rutgers.edu/report/s-2010-1-evaluation-of-the-rcm-implementation-at-rutgers/>

⁷ S-2307: RCM Detailed Recommendations, <https://senate.rutgers.edu/report/s-2307-rcm-detailed-recommendations/>

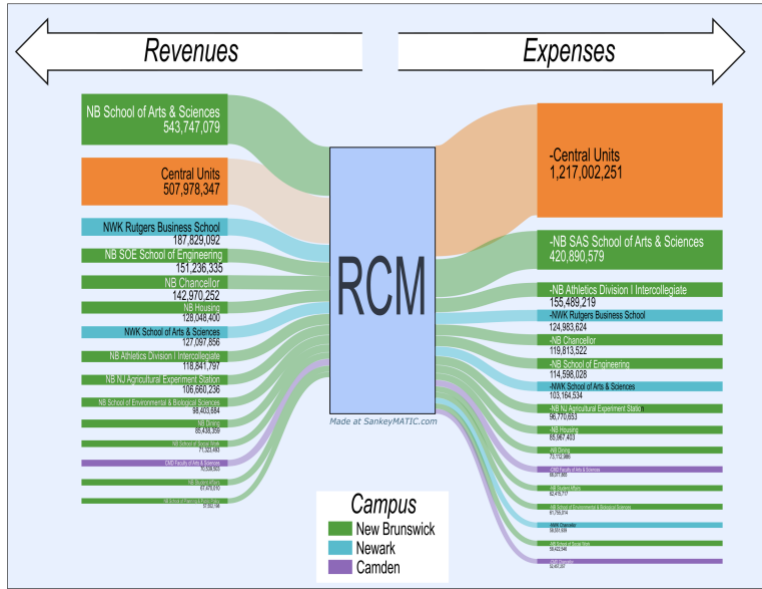


Figure 2 - FY2024 Budget flow diagram for non-medical units, showing unit revenues to left, and expenses to right. Units are color coded by campus as indicated in legend. Note Central data are separated by source and use in Fig. 3. Values are in dollars.

The largest contributors to revenues appear to be NB School of Arts & Sciences, Central, and NWK Business School, while the largest spenders are Central, NB School of Arts & Sciences, and NB Athletics Division I. We note that Central provides university-wide services, but does not itself generate revenues. Nevertheless, Central does pass through Student Aid and other funds to units across campuses, and these appear as revenues in Fig. 2. To clarify the sources and sinks of Central’s unique situation, we expand its component revenues and expenses in Fig. 3.

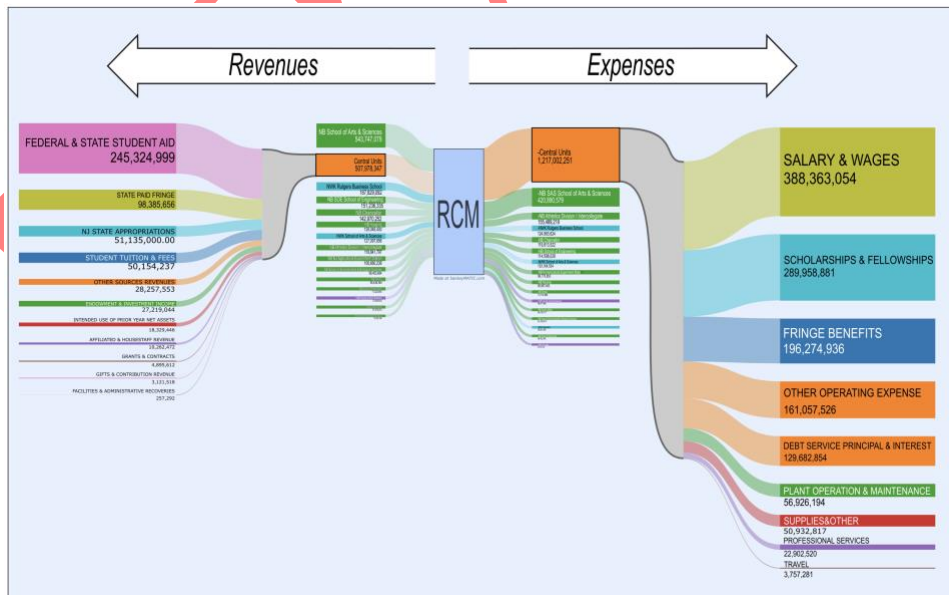


Figure 3 - FY2024 Budget flow diagram for non-medical units, identifying where Central funds come from and go to. Values are in dollars.

Evidently, about half of Central’s revenues (\$245M) come from federal & state student aid, which is passed through along with tuition & fees (\$50M) to pay for scholarships & fellowships (\$290M). The bulk of Central’s expenses – as is the case with other units – go to Salaries, Wages and Fringe benefits (\$585M combined).

Most germane to the BFC charge to select and study “... priorities and allocation of funds...” is assessing changes in funding resulting from university priorities. To that end, we first consider changes in Central over the period that we have data, 2018 to 2025, after which we turn to examining trends across all Units.

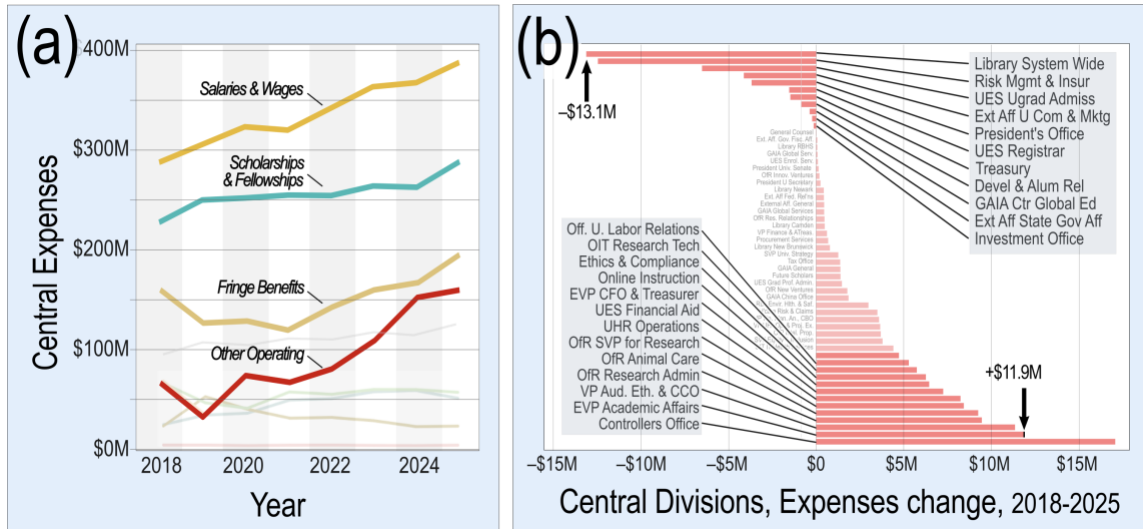


Figure 4 – Changes in expenses within the Central Unit between 2018 and 2025.

(a) Growth in Central spending largely goes toward Salaries, Wages and Fringe, followed by Scholarships & Fellowships. “Other Operating” Expenses have more than doubled over the past 9 years.

(b) Change in Central expenses by Division show cuts to Libraries as well as Risk Management & Insurance, alongside growth in several VPs and the Controller. All Divisions within Central are included in these plots; to aid visualization, listings identifying the funding experiencing the largest decreases and increases are highlighted.

In Fig. 4, we show changes in expenditures by Central between 2018 and 2025. In Panel (a) we show that the largest growth has been in Salaries, Wages & Fringe, so evidently Central has been growing in employees and compensation, and the category, “Other Operating” expenses, has more than doubled. The Budget & Finance Committee has requested information from the responsible leadership in this and other Units, and we plan to provide follow-on reports as details are provided.

In Panel (b), we see that several divisions within the Central Unit have been cut, while others have grown; in particular, black arrows in that panel indicate that there has been a cumulative reduction in system-wide Library expenses of \$13.1M (offset by increases of \$1.8M across campus libraries, for a net loss of \$11.3M), and a comparable increase in \$11.9M for the Executive Vice President for Academic Affairs⁸.

We emphasize that this does not imply that funds were taken from libraries for the purpose of increasing the budget of an Executive Vice President. Nevertheless, as we will describe in the next section, we find that cuts to academic groups alongside growth in administrative groups seems to be widespread in the University, and is mirrored between, as well as within, Units.

Finding 2: The largest expense unit (Central) has grown significantly over the past 9 years, with some categories more than doubling over that time frame. Within Central, the largest reduction in costs has been from the Libraries, and the largest increase has been to the EVPAA and the Controller.

⁸ We neglect the Controller’s funds in this report: as near as we can determine, every Unit provides funds to the Controller, who redistributes the funds in a manner that may merit a separate analysis.

2. Trends:

With changes in expenses within Central as an introduction, we turn to analyzing changes in budgets across the University. For this purpose, we recognize that a small change to a large Unit may have the same budgetary impact as a large change to a small Unit, and so to identify the most influential budget trends, we multiply the budget share from Fig. 1 (i.e. Unit financial size) by the change in expenses for all non-medical Rutgers units. In this way, spending trends can be ordered from most to least influential.

For brevity, we'll call Units that have grown most substantially according to this ordering "*fastest growing*," and Units that have shrunk most substantially "*fastest shrinking*." The 4 fastest growing non-medical Units at Rutgers are shown in Fig. 5.

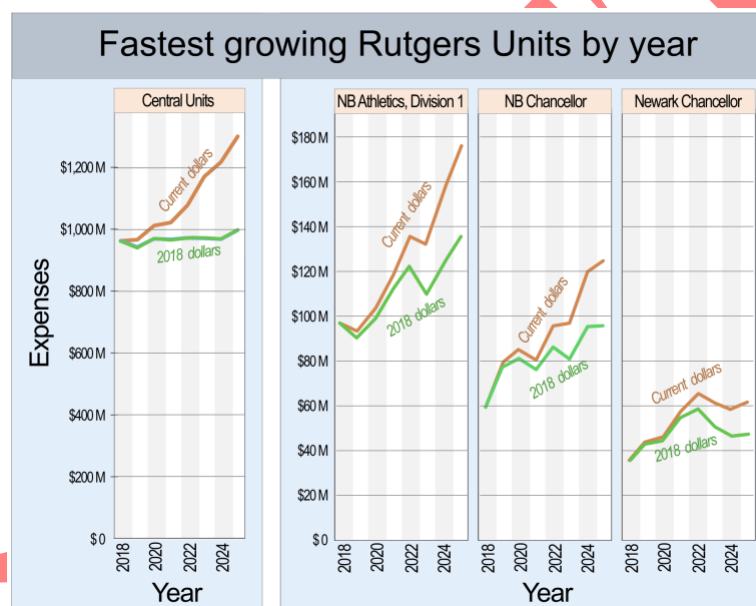


Figure 5 – The four “fastest growing” (see text) non-medical Units at Rutgers: Central administration, Athletics Div. I, New Brunswick Campus Chancellor, and Newark Campus Chancellor. Plotted are annual expenses between 2018 and 2024 in both current dollars (brown) and in inflation-adjusted⁹ dollars (green). The Central Unit (Unit financial size) is plotted on a separate vertical scale to include its large values.

Finding 3: The most influential increases in Rutgers’ non-medical expenses over the past 9 years involve management and athletic units.

We’ll examine the amounts of growth momentarily; first, let’s look at the Units that have been most significantly cut over the past 9 years. These “fastest shrinking” Units, shown in Fig. 6, are the New Brunswick School of Arts & Sciences, the New Brunswick School of Engineering, New Brunswick Dining, and the New Brunswick Agricultural Experiment Station, each of which has decreased its budget in real, inflation-adjusted¹⁰, dollars (plots in green).

⁹ <https://www.in2013dollars.com/us/inflation/>

¹⁰ <https://www.in2013dollars.com/us/inflation/>

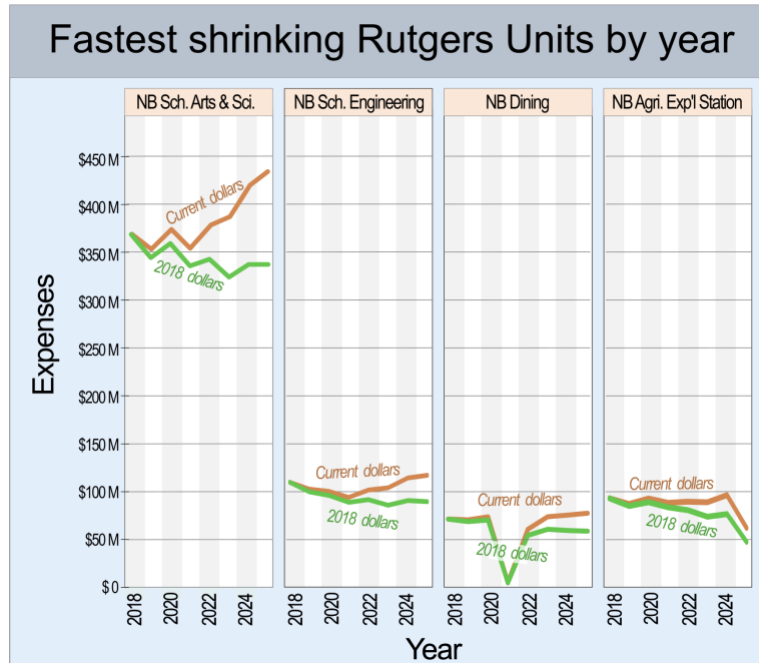


Figure 5 – The four “fastest shrinking” non-medical Units at Rutgers: New Brunswick School of Arts & Sciences, New Brunswick School of Engineering, New Brunswick Dining, and the New Brunswick Agricultural Experiment Station. Plotted are annual expenses between 2018 and 2025, in both current dollars (brown) and in inflation-adjusted dollars (green).

Finding 4: The most influential decreases in Rutgers’ non-medical expenses over the past 9 years involve academic and dining units, which have been cut in real, inflation-adjusted, dollars.

The preceding figures indicate that expenses of academics (and dining) have been regularly cut over the past 9 years, while management and athletic Units have grown. At this stage of our analysis, we cannot assess any intent or correlation between these two trends without being included in budgetary decision-making (see below), however from budgetary data we can identify where money is coming from, and, independently, where it is going to year after year.

This identification is somewhat difficult to interpret from the preceding plots, which involve Units whose expenses range from \$50 million to \$1.3 billion, but it so happens that – as was the case within the Central Unit (Fig. 4) the dollar **changes** in these expenses are comparable, each ranging from minus to plus about \$25 million in over the past 9 years. So in Fig. 7, we compare changes to expenses in the fastest growing and the fastest shrinking Units from 2018 to 2025, all on the same scale, from -\$50 million to +\$50 million.

Over the past 9 years, the total decrease from the 4 fastest shrinking Units has been about \$110 million, and the total increase to the fastest growing Units has been about \$130 million. These are both expressed in inflation-adjusted 2018 dollars; in 2025 dollars, these amount to cuts of about \$140 million alongside increases of about \$160 million. Other Units that have shrunk or grown by smaller amounts are not included in these totals.

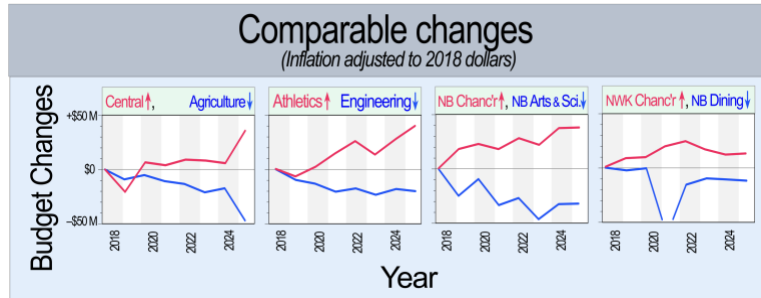


Figure 6 – Comparisons between changes in expenses of the most influential Units from 2018 on, in constant, inflation-adjusted 2018 dollars. Red indicates fastest growing, and blue indicates fastest shrinking Units. Evidently, money is being taken from academic (and dining) Units, and is being put into management (and athletic) Units.

Finding 5: For the most influential budgetary Units at Rutgers, management and athletics have grown by amounts comparable to cuts to academics and dining.

As has been mentioned in a prior Rutgers Senate report¹¹, members of the Rutgers community are largely excluded from budgetary decision making, and so we cannot say why funds have been directed away from, for example, the New Brunswick School of Arts & Sciences and why about the same dollar amounts have been directed toward, for example, the New Brunswick Chancellor.

We can, however, say with quantitative certainty that over many years academic Units have been cut and that management and athletics Units have been expanded. This fact appears to reflect a priority that threatens the financial viability of the University, which is a grave concern. Indeed, hundreds of colleges and universities have shut their doors due to financial failures¹² and this alarming trend seems likely to worsen¹³. The same trend is reflected in concerns by parents and students¹⁴, and a majority of faculty^{15,16} and staff¹⁷ faced with increasing workload and decreasing support are considering leaving the profession altogether.

This is a manifestly unsustainable situation, and we call on the President, and the Rutgers Community, to take note of these financial trends and to reverse the strategic direction of growth, so that academics are prioritized over non-academic initiatives. In concrete terms, this would require the inflation-adjusted cuts suffered by academic Units (over \$100M in real dollars, according to Fig. 6) to be compensated by returning the excess and comparable growth in non-academic units.

¹¹ S-2307: RCM Detailed Recommendations, <https://senate.rutgers.edu/report/s-2307-rcm-detailed-recommendations/>

¹² E.g. <https://hechingerreport.org/tracking-college-closures/>

¹³ E.g. <https://www.bestcolleges.com/research/closed-colleges-list-statistics-major-closures/>

¹⁴ E.g. <https://www.insidehighered.com/news/student-success/college-experience/2024/05/29/cost-higher-education-not-worth-it-students>

¹⁵ <https://www.nea.org/sites/default/files/2022-02/NEA%20Member%20COVID-19%20Survey%20Summary.pdf>

¹⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9930908/>

¹⁷ <https://www.chronicle.com/article/more-than-half-of-campus-staff-members-are-thinking-about-quitting-survey-finds>

Appendix:

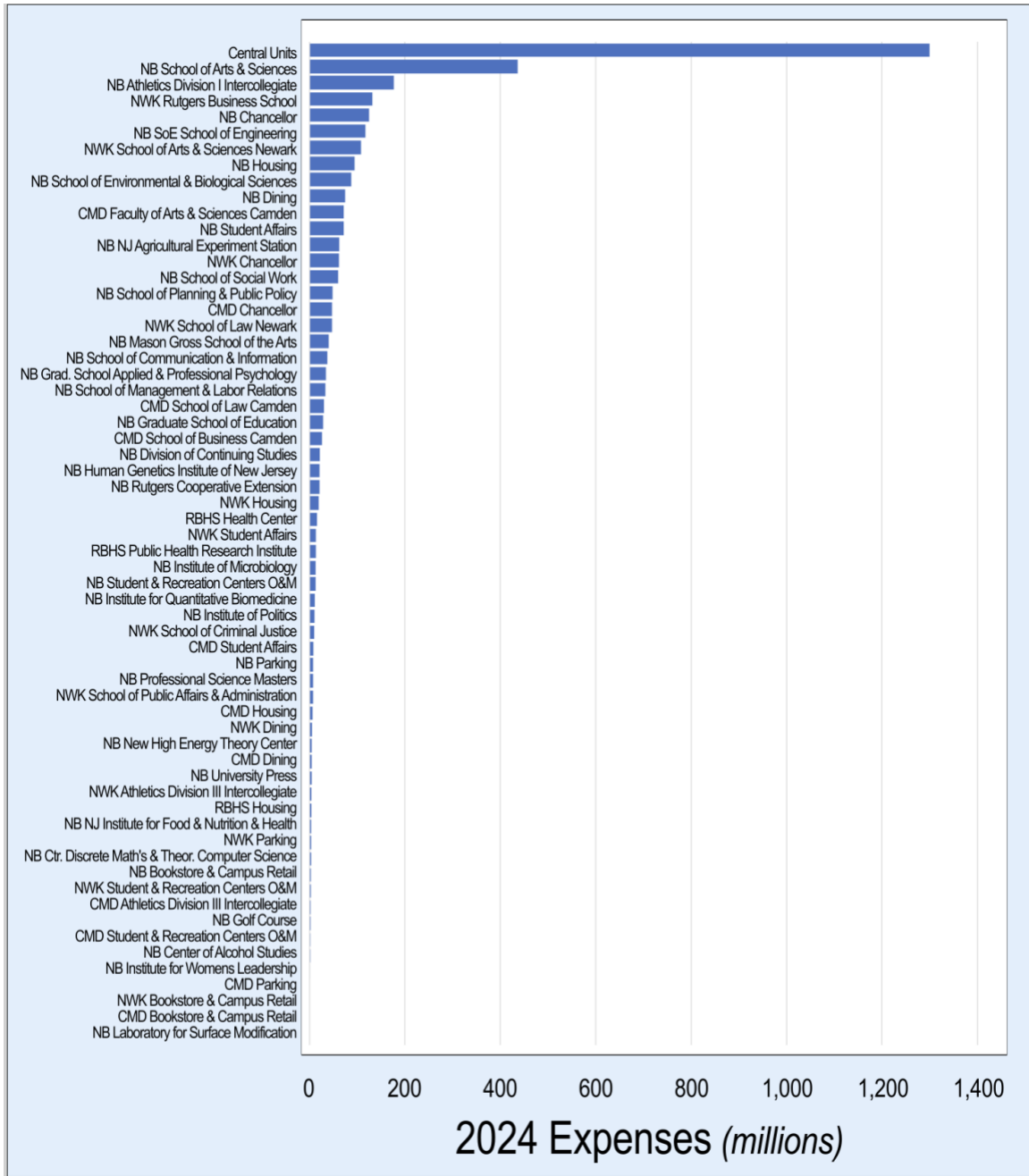


Figure A1 – FY2024 Expenses for all Rutgers non-medical units.