

Northwestern Graduate Workers 2021 Financial Analysis



Subject: 2021 NUGW Analysis of the Northwestern Annual Financial Report

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1 Summary and Quick Facts

The following is an analysis of Northwestern University's 2021 Financial Report, with explanations of various technical aspects in an attempt to make Northwestern's finances more accessible to a lay audience. In doing so, we hope to empower workers on campus to organize for their fair share of the university's capital, as well as provide a road map for higher education workers outside of Northwestern interested in researching their own institution. Corporate power in general, and the corporate university in particular, relies on an air of impenetrability and expertise. It is critical to the mission of empowering workers that this mystique is eliminated, and that the appropriate context is provided for financial data presented by the university.

- For Fiscal Year (FY) 2021, Northwestern's investment returns of 37% pushed the endowment to \$14.9 billion, representing a growth of almost \$3.8 billion in one year.
- The endowment spending rate was reduced to 4.4%, down from 5% in 2020 and a peak of 5.6% in 2018. Spending guidelines are currently under review by the Board of Trustees.
- Liquid assets which Northwestern could access within one year currently total over \$2 billion, an increase of \$134 million compared to FY2020.
- Investment returns have outpaced spending and inflation by 5.3% over the past five years. During that time period, the investment return has been more than double the rate of spending plus inflation.
- Fees paid out to external investment managers are estimated to total over \$90 million for FY2021
- Northwestern reported a budget surplus of \$87.8 million for FY 2021. Over the past three years, the average budget surplus is \$80 million per year.
- Despite fears that tuition and gift revenues would dry up during the pandemic, their relative contributions to revenue remains comparable to pre-pandemic levels.
- When adjusting for inflation, the 2022-2023 stipend set by TGS will represent at least a 3.3% decrease relative to the 2018-2019 stipend.
- With a primary reserve ratio of 4.45 for FY 2021, Northwestern could pay its expense for approximately four and a half years even if it received zero income over that time period
- Even if the university draws from the endowment at its conservative target spending rate, this year's endowment growth will provide about \$81 million extra in operating revenue for next year.

2 Methodology

Data on Northwestern's finances dating back to Fiscal Year (FY) 2001 are available at <https://www.northwestern.edu/financial-operations/annual-financial-reports/>. For simplicity, we have chosen to focus primarily on the past ten years of financial data. This time period encompasses recovery from the 2008 market crash, university-induced austerity measures during a budget deficit in 2018^{1,2}, and the extraordinary pandemic-era growth of the endowment in recent years.

Where applicable, we have chosen to report three-year averages for certain data points in addition to the numbers for individual years. We have calculated three-year averages by averaging numbers for a given year with the previous two years. For example, a three-year average for the endowment value in 2021 is calculated by averaging the endowment value in 2021, 2020, and 2019. This averaging serves to smooth out some of the year-to-year fluctuations that occur due to an unpredictable market.

To put Northwestern's financial standing into context, we have also chosen to include comparisons to peer institutions in certain sections. These peer institutions were chosen based on (1) status as a private research university; (2) similarly sized populations to Northwestern; and (3) similar endowment and annual operating expenses. Selected peer institutions include Vanderbilt University³, Washington University⁴, and Emory University⁵:

	Northwestern	Vanderbilt	Washington U. (St. Louis)	Emory
Undergrad pop.	8,000+	8,197	7,057	8,058
Grad pop.	13,000+	7,649	6,480	8,989
2021 Endowment	\$14.9 billion	\$10.9 billion	\$13.7 billion	\$8.0 billion
2021 Investment Return	37%	57.1%	65%	39%
Operating Expenses	\$2.5 billion	\$1.3 billion	\$3.7 billion	\$7.2 billion

Of particular interest is the fact that all peer institutions posted investment returns greater than 30%. These greatly outperformed a benchmark portfolio used by Northwestern consisting of 70% Global Equity /30% Bond Index (which only grew by 19.5% over the fiscal year), suggesting similar investment strategies among these universities and strengthening the case for their inclusion as "peer institutions."

¹<https://dailynorthwestern.com/2019/01/17/lateststories/university-drew-from-endowment-to-resolve-94-million-deficit/>

²<https://dailynorthwestern.com/2019/01/08/campus/almost-a-year-later-a-look-back-on-how-the-budget-deficit-has-impacted-the-university/>

³<https://finance.vanderbilt.edu/accounting/report/index.php>

⁴<https://wustl.edu/about/audited-financial-statements/>

⁵Note that Emory includes its associated hospitals in financial data while Northwestern does not, resulting in much higher operating expenses. <https://finance.emory.edu/home/accounting/audit/index.html>

3 University Endowment and Investment Holdings

3.1 The Long-Term Balanced Pool, "The Endowment"

University financial terminology is sometimes ambiguous with regard to what constitutes the "endowment," especially for a large university such as Northwestern. Financial reports refer to the Endowment as the amalgamation of around 2,900 funds with various donor-related or Trustee-related restrictions. Some of these funds have no restrictions at all, but they are still all managed under the Illinois **Uniform Prudent Management of Institutional Funds Act (UPMIFA)**. In FY2021, these 2,900 accounts amount to \$11,361,182,000.

But this is **not** what is usually meant by the endowment in esoteric reports about the university finances, including in the Senior Vice President for Business and Finance's opening letter. What is usually talked about as the endowment in these more public-facing discussions, including in news articles, the **Long-Term Balanced Pool**. The Long-Term Balanced Pool includes all the funds of the Endowment, but it also contains a number of investment funds which the university grows by stashing some of the cash remaining at the end of the year. The reason this **Long-Term Balanced Pool** is referred to as the endowment is because this bigger pot is geared towards the same purpose as the **Endowment funds**: a long-term financial basis whose returns can fund the university in perpetuity.

When people refer to "The Endowment" outside the context of the University's technical annual financial report, they are referring to the Long-Term Balanced Pool. **In FY2021, Northwestern's Long-Term Balanced Pool ("The Endowment") had \$14,902,788,000.** This is the "\$14.9-billion endowment" reported in the media. The three-year average of the Long-Term Balanced Pool currently stands at \$12,278,216 billion. **In the past year alone, the endowment grew by almost \$3.8 billion.**

History of the Merged Pools as of August 31, 2021					
	2017	2018	2019	2020	2021
Long-Term Balanced Pool					
Net asset value (in thousands of dollars)	\$10,456,022	\$11,014,417	\$10,800,749	\$11,131,111	\$14,902,788

3.2 Liquid Assets

Within the Long-Term Balanced Pool, the funds that are easily accessible without restriction or penalty are liquid assets. Those are assets that can be easily converted into cash in a short amount of time. Northwestern implements a combination of strategies to maintain its pool of liquid assets, including investments in US equity, international equity, and fixed income strategies via separately managed accounts, partnerships, and commingled funds. (p. 23 Fair Value Disclosures). **In FY2021, the total financial assets and liquidity resources available within one year for general expenditure amounted to \$2,005,849,000.** That is a \$134 million (or 6.7%) increase compared to FY2020 (p. 34 Liquidity and Availability). Over the past three years, Northwestern has maintained an

average of \$1.8 billion of assets available within one year.

The primary source of liquid assets from investments for Northwestern's general operating purposes comes from the **treasury funds**. The treasury funds include money market funds used for cash reserves and to preserve principal and maintain liquidity; intermediate-term bond and bond-like investments; and working capital funds held by the University (p. 4 The University's Total Investment Pools). In FY2021, the treasury funds summed to \$199,580,000. In other words, the university has nearly **\$200 million** in liquid investments.

History of the Merged Pools as of August 31, 2021					
	2017	2018	2019	2020	2021
Long-Term Balanced Pool					
Net asset value (in thousands of dollars)	\$10,456,022	\$11,014,417	\$10,800,749	\$11,131,111	\$14,902,788
Number of units (in thousands)	43,212	43,702	44,089	44,825	45,713
Net asset value per unit	\$241.97	\$252.03	\$244.97	\$248.32	\$326.01
Summary of net asset value (in thousands of dollars)					
Treasury pool funds	\$174,503	\$192,449	\$199,405	\$202,114	\$199,580
Separately invested funds	\$155,403	\$146,043	\$143,814	\$139,157	\$155,423
Total net asset value (in thousands of dollars)	\$10,785,928	\$11,352,909	\$11,143,968	\$11,472,382	\$15,257,791

Additionally, Northwestern currently holds \$285 million in cash and cash equivalents , plus \$159 million in assets from acting as a lessee (p. 10, Assets). Together, this sums to over \$444 million that can be readily used to improve the quality of life of Northwestern employees.

(in thousands of dollars)	2021	2020
Assets		
Cash and cash equivalents	\$285,059	\$381,442
Accounts receivable, <i>net</i>	218,147	214,787
Contributions receivable, <i>net</i>	259,037	277,871
Notes receivable, <i>net</i>	136,111	146,657
Investments	15,143,205	11,576,232
Right-of-use assets—operating, <i>net</i>	159,206	—
Land, buildings, and equipment, <i>net</i>	3,177,018	3,258,694
Total assets	19,377,783	15,855,683

3.3 Endowment Payout Rate

Northwestern's **Endowment** is subject to the Illinois **Uniform Prudent Management of Institutional Funds Act (UPMIFA)** which requires the university spend its **Endowment** "prudently" such that the **Endowment** provides equal or greater spending power from one generation to the next (a concept known as "generational equity") unless a donor specifies otherwise for their particular fund. Essentially what this means is that the

annual payout from the endowment should be less than the total return on investments minus inflation. **Given an average spending rate of 5.2% over the past five years and performance of 5.3% above the objective, growth of the endowment has outpaced spending from it by more than a factor of two.** In other words, if growth stayed the same but the spending rate were doubled, the endowment would still have grown over the past five years. However, this is due in large part to the extraordinary growth of the endowment during FY 2021 and may not have been foreseeable prior to this year.

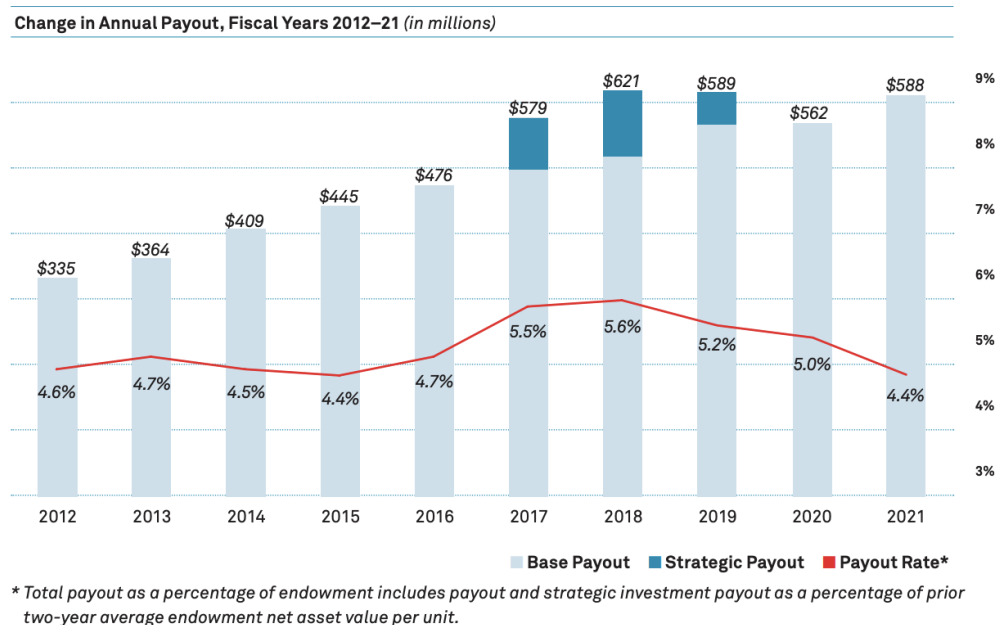
Annualized Returns: Exceeding the Objective (as of August 31, 2021)					
	1-year	3-year	5-year	10-year	20-year
Annual total return*	37.0%	14.6%	13.1%	10.2%	9.1%
– Spending	4.4%	4.9%	5.2%	4.9%	4.8%
– Inflation	5.3%	2.8%	2.6%	1.9%	2.2%
= Above or below objective	27.3%	6.9%	5.3%	3.4%	2.1%

* Total returns are net of fees and calculated on annual changes in net asset value. They may differ from payout distributions.

In order to adjust for year-to-year fluctuations in the endowment market value and operating expenses, the Board of Trustees sets spending guidelines to re-calculate the spending rate every year. As seen on the Investment Office Website,⁶ this is calculated as a weighted average of the target spending rate of 4.35% and the previous year's spending rate adjusted for inflation and growth of the university's operating budget. **Currently, this spending guideline is under review by the Finance Committee of the Board of Trustees.** In the meantime, the board has approved a 2.26% increase in spending per unit for FY2022.⁷ However, the net asset value per unit increased by over 30% (p. 5, "Payout Determined by Spending Guideline, Fiscal Years 2017-2021"), forecasting an overall decline in the spending rate as a percentage of the endowment over the next year.

⁶<https://www.northwestern.edu/investment/spending-policy.html>

⁷Since the endowment is comprised of thousands of individual accounts, it is treated as a "unitized fund." Many of the individual accounts might be relatively small, so it makes sense to pool them together and then divide the pooled amount into "units" that are held by the individual funds. This allows more investment flexibility while keeping the individual accounts separate.



The reduction of the spending rate as a percentage of the endowment extends a three-year trend that started after the Board of Trustees authorized an additional “strategic payout” from the endowment in FY 2017-19, largely used to finance new construction and renovations of campus buildings⁸. This runs counter to the logic that the endowment is not a pot of money that can be accessed for special purposes.

3.4 Investment Management

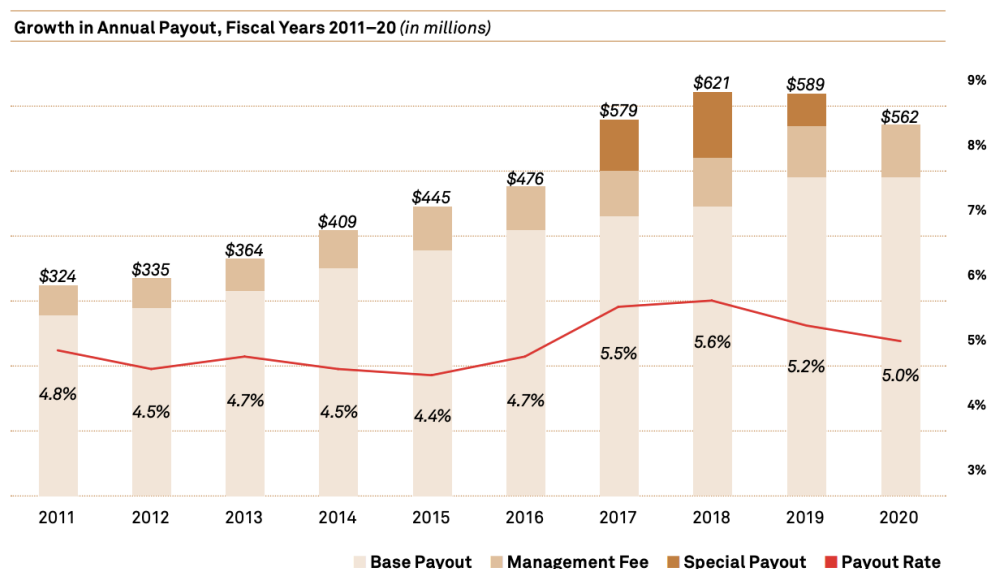
Even though the Board of Trustee’s sets a new target spending rate on an annual basis, the rate spent on “University management fee and support” remains fixed year-to-year at 0.7% of the market value of the endowment (p. 7 in the 2020 Report, “Annualized Returns: Exceeding the Objective”). According to the Investment Office website, “the Investment Office employs many of the world’s most successful outside managers for public equities, fixed income, absolute return, private equity, and real asset strategies.” In other words, a fixed percentage of the endowment every year is paid to managers of hedge funds, private equity funds, and other investment managers external to the university⁹. **Given a two-year average market value of \$13 billion for the endowment, this payout is estimated to total \$91 million this year.** This represents an estimated

⁸From the University’s 2017 financial report: “Highly visible outcomes of the University’s capital plan in 2017 include a new residence hall at 560 Lincoln Street, the renovated Seeley G. Mudd Library, and the new Kellogg Global Hub. In the coming year, we will see completion of the Ryan Fieldhouse and Walter Athletics Center, as well as completion of extensive renovations to Welsh-Ryan Arena. On the Chicago campus, the University continues construction on the Louis A. Simpson and Kimberly K. Querrey Biomedical Research Center, which will be the catalyst for expanded biomedical research.”

⁹This strategy of relying on external managers to invest heavily in specific asset classes is known as “the Yale Model,” as it was pioneered by David Swensen when he served as Yale’s Chief Investment Officer during the 1990s. Much of the reason that the endowment is held in illiquid (i.e. hard to spend) assets is based on this model.

increase of almost \$15 million from the previous year.

The reason that we can only estimate what this management fee payout is for FY2021 is that Northwestern has begun merging these fees in their reports with the base payout used for university operations. Shown below is the endowment spending rate graph found in the FY2020 financial report. In contrast to the FY2021 graph shown in Section 3.3, this management fee is distinguished from the base payout that goes to support university operations. Since the management fee of 0.7% has been constant for the past 15 years, we do not have any reason to believe that it has changed this year. Reporting standards on these fees in the university's financial reports have changed several times over the past decade, and several possibilities exist for why they were merged with overall endowment spending this year.



3.5 Peer Comparisons

Northwestern's spending rate from the endowment (4.4%) was on par with the spending rate of our chosen peer institutions Vanderbilt (3.9%), WashU (4.4%) and Emory (4.8%). Combined with investment returns of greater than 30% for all of these institutions, these spending rates have allowed endowments to grow significantly over the past year.

4 University Budget

4.1 Operating Revenues and Expenses

A breakdown of Northwestern's revenues and expenses is shown below (from p. 11 in Northwestern's report). **The budget surplus, indicated on the last line as "excess of operating revenues over expenses," is \$87.8 million. Over the past three years, Northwestern has averaged a budget surplus of \$80 million per year.**

(in thousands of dollars)

2021

2020

Net assets without donor restrictions

Operating revenues

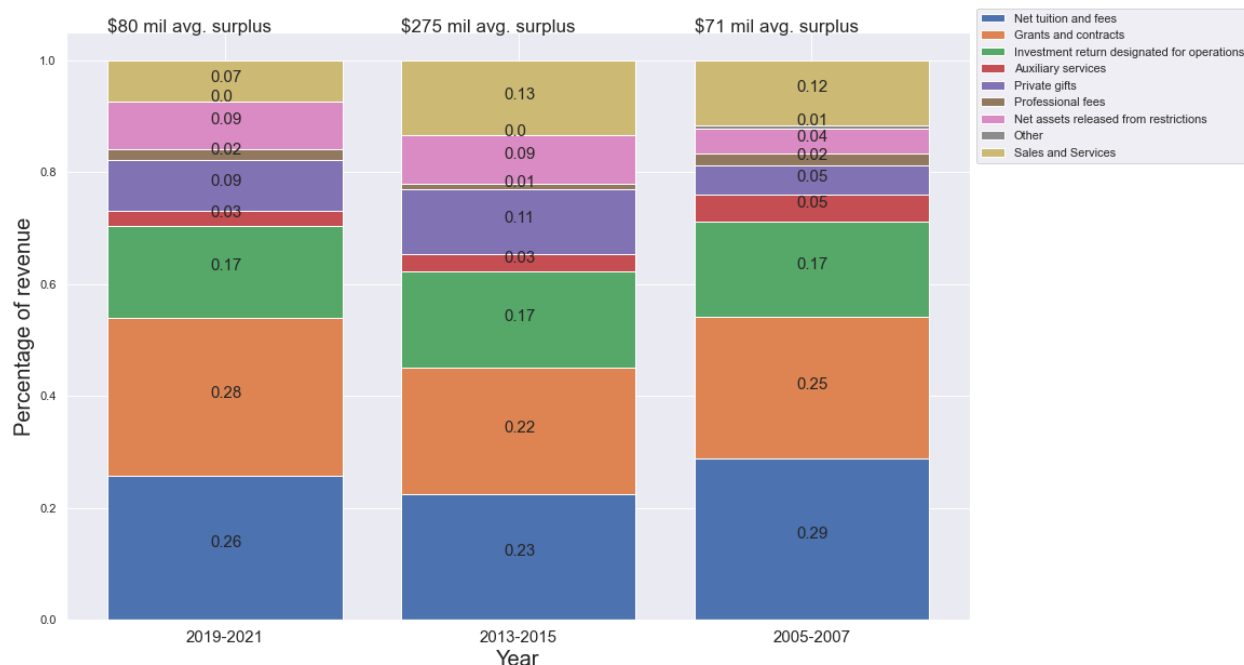
Tuition and fees (<i>net of aid, \$520,805 in 2021 and \$512,945 in 2020</i>)	\$659,916	\$661,099
Auxiliary services	40,528	69,658
Grants and contracts	752,376	719,122
Private gifts	232,369	233,671
Investment return designated for operations	421,626	402,815
Sales and services	156,004	195,736
Professional fees	48,537	45,969
Net assets released from restrictions	248,035	214,713
Total operating revenues	2,559,391	2,542,783

Operating expenses

Salaries, wages, and benefits	1,477,348	1,455,808
Services, supplies, maintenance, and other	717,159	728,002
Depreciation	185,918	181,647
Interest on indebtedness	91,163	93,894
Total operating expenses	2,471,588	2,459,351
Excess of operating revenues over expenses	\$87,803	\$83,432

Senior university leadership have often declared that Northwestern faces “budget uncertainties” due to the pandemic, and these “uncertainties” are usually provided as justification for the university’s conservative spending. While there likely was uncertainty in the early days of the pandemic, campus operations have largely returned to pre-pandemic levels and we can now assess how the revenues were *actually* disrupted over the past few years.

Shown below is a plot of the relative proportions of each revenue class to the total operating revenue for several different three-year windows. These specific years were chosen for comparison because they were all periods of time where Northwestern had very large average budget surpluses.



Even though large decreases in revenue from tuition and fees were expected, this revenue source actually makes up a larger proportion of operating revenues than it did six years ago. A similar story can be told about private gifts - in the early days of the pandemic, there were fears that gifts to the university would dry up completely as the economy entered a recession. However, private gifts make up a larger portion of the revenues than they did in the years 2005-2007.

Sales and services contribute less to the revenues than they have previously, likely due to the rights to Lyrica royalties being sold in 2013¹⁰. On the other hand, the budget seems to have become more dependent on grants and contracts, which now account for 28% of revenues. And, despite growth of the endowment that is significantly above the objective during this time, investment returns designated for operations have remained relatively steady.

On the expenses side, the largest expense by far is salaries, wages, and benefits, totaling \$1.48 billion in FY 2021. Unsurprisingly, this total is skewed towards the highest earners. In 2019, the most recent year for which Northwestern's Form 990 tax filing is available¹¹, the top 29 highest compensated employees earned a combined \$31.5 million, representing about 2.2% of the total amount spent on salaries, wages, and benefits that year.

While operating expenses in FY 2021 are \$39.6 million below the pre-pandemic expenses in FY 2019, operating revenues have only decreased by \$20.5 million when comparing the same years. When comparing FY 2021 with FY 2018, expenses are approximately the same while revenue has increased by \$35 million. **Overall, budget surpluses during the**

¹⁰<https://dailynorthwestern.com/2016/04/10/in-focus/in-focus-as-lyrica-profits-dry-up-northwestern-seeks-another-blockbuster-drug/>

¹¹<https://projects.propublica.org/nonprofits/organizations/362167817/202001979349302065/full>

pandemic have been \$20-\$35 million larger than the years immediately preceding the pandemic. Despite the increases in spending on COVID-19 testing and the loss of tuition/housing revenue, the university has more than offset these losses through cuts in other areas.

4.2 Sponsored Research Funding

Financial support for research at Northwestern continues to boom. This year, sponsored research funding reached \$893.4 million

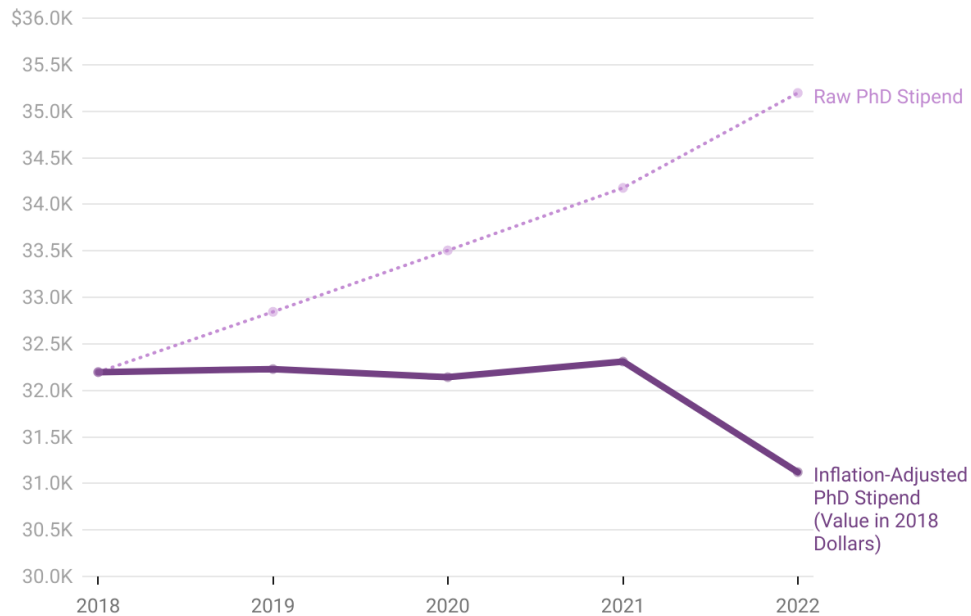
As was the case in previous years, Northwestern's largest category of assets is earmarked for teaching, research and programs support. Additionally, Northwestern saw a particularly successful year in fundraising support through the "We Will" Campaign. While the initial goal was set to raise \$3.75 billion, the Campaign ended up reaching \$6.1 billion.

<i>(in thousands of dollars)</i>			2021
Nature of specific net assets	Without donor restrictions	With donor restrictions	Total net assets
Teaching, research, and program support	\$3,380,552	\$3,937,558	\$7,318,110
Student financial aid	886,967	1,144,384	2,031,351
Capital and operations	1,294,610	717,111	2,011,721
Endowment net assets subtotal	5,562,129	5,799,053	11,361,182
Pledges	—	259,037	259,037
Unexpended gifts	—	31,260	31,260
Annuity and other split-interest agreements	—	66,946	66,946
Student loan funds	63,392	42,260	105,652
Operating and plant	4,238,251	—	4,238,251
Total	\$9,863,772	\$6,198,556	\$16,062,328

With the available funding and rapid growth of the endowment, however, the benefits stopped at the stakeholders. Salaries for researchers across the university, including stipends for PhD students, continue to raise at a rate slower than inflation.

Northwestern PhD Stipend Plummets Amidst Inflation

Based on the U.S. consumer price index (CPI), inflation is now outpacing PhD stipend increases:



U.S. CPI is from December of previous year, while stipends do not start until September of listed year

Chart: Northwestern University Graduate Workers (NUGW) • Source: U.S. Bureau of Labor Statistics • Created with Datawrapper

One major conclusion we have drawn from the 2020 financial reports is the general increase in research funding despite the COVID-19 pandemic. For instance, there was \$50 million dollar decrease in what university considers as academic "services, supplies, maintenance, and other", coinciding with a \$3.5 million increase in research expenses. This would imply that there were fewer academic resources available to students (a category under which graduate workers fall, according to the university). This would also imply that while some graduate students (in programs that emphasize classes and the experience of being a student more, i.e. master's programs) would have fewer resources during the pandemic, other students in more research-oriented programs (i.e. STEM Ph.D. programs) would experience the same, if not a greater amount of resources. This likely influenced the speed with which STEM Ph.D. students were expected to return to campus for daily work (approximately June 2020, a mere three months following the original lockdown order).

Operating expenses incurred in the fiscal years ended August 31 were as follows:

(in thousands of dollars)				2020
	Academic	Research	Support	Total
Salaries, wages, and benefits	\$923,409	\$298,256	\$234,143	\$1,455,808
Services, supplies, maintenance, and other	517,945	196,006	14,051	728,002
Depreciation	113,167	55,374	13,106	181,647
Interest on indebtedness	58,496	28,623	6,775	93,894
Total	\$1,613,017	\$578,259	\$268,075	\$2,459,351

(in thousands of dollars)				2019
	Academic	Research	Support	Total
Salaries, wages, and benefits	\$914,581	\$278,335	\$246,243	\$1,439,159
Services, supplies, maintenance, and other	566,670	193,503	59,993	820,166
Depreciation	111,854	40,342	12,946	165,142
Interest on indebtedness	58,740	21,185	6,799	86,724
Total	\$1,651,845	\$533,365	\$325,981	\$2,511,191

Diving into the 990-T tax form (also known as an "Unrelated Business Tax Form") completed for August 2019 - August 2020, there is a similar picture of increased research capacity accounting for 3-5 months within the COVID-19 pandemic. Northwestern University reported 25 separate pass-through entities (entities that exist to pass money onto owners and investors) that experienced an increase in research expenses during this time period. Attempts to search for and identify these entities by employer identification number were not successful. Thus, it is unclear what these entities are and if they were related to COVID-19 research or not. However, this increase strongly implies that research did not suffer greatly due to the pandemic.

5 Assessing Financial Responsibility

Among all of the numbers presented here and in the university's own financial report, it can be difficult to get a sense of what they mean. As a graduate worker who makes just over \$34,000 per year, it is understandably tough to judge whether holding \$19 billion in assets is a reasonable amount for a University with \$2.5 billion in operating expenses every year, just to give one example. Luckily for us, government agencies, creditors, and rabble rousing university employees have developed different financial responsibility metrics to assess whether the university has been financially responsible enough to fulfill its goal of supporting the current and future generations of scholars. The metrics we will look at are listed below, with all ratios calculated from averaging the past three years of financial data. For more information on the methodology, see Section 7.

True Total Reserves - The True Total Reserves represent the portion of the University's total wealth that they could actually, feasibly spend without betting on their ability to sell real estate or violating various donor agreements. To see how we calculate the true total reserves, see Section 7. Because Vanderbilt merges endowment holdings with donor restrictions with endowment funds held in perpetuity in their reports, our formula for calculating their true total reserves likely results in an underestimate of the total value.

Primary Reserve Ratio - The Primary Reserve Ratio (PRR) is calculated by dividing the true total reserves by the annual operating budget, and estimates how long a university can continue to operate if all sources of revenue immediately dried up. For example, a PRR of 3 means that a university can operate at its current capacity for 3 years without taking in any income. In general, a PRR of 0.5 or higher is considered to constitute excellent long-term financial health. Because Emory University merges the finances of the university with its associated hospital system, their reported operating expenses are significantly higher than the other three universities, resulting in a lower PRR.

Fichtenbaum-Bunsis Score - The Fichtenbaum-Bunsis (F-B) score¹² was developed by Rudy Fichtenbaum and Howard Bunsis, professors of economics and accounting, respectively. The score assigns weights to the Primary Reserve Ratio, Viability Ratio, Net Income Ratio, and Cash Flow Ratio all calculated in Section 7.2 and computes a score on a scale from 0 to 5, with 5 representing the most financially responsible scenario. This score is commonly used by AAUP chapters and graduate worker unions to assess their university's finances.

Department of Energy Composite Score - The Department of Energy (DoE)¹³ score assigns weights to the Primary Reserve Ratio, Net Income Ratio, and Equity Ratio. These are then used to compute a score on a scale from -1 to 3, with 3 representing the most financially responsible scenario. A score above 1.5 indicates that the university is considered "financially responsible," and need no additional federal oversight.

National Association of College and University Business Officers Composite Score - The National Association of College and University Business Officers (NACUBO)¹⁴ score assigns weights to the Primary Reserve Ratio, Net Income Ratio, Viability Ratio, and return on investments. In contrast to the F-B and DoE scores, the NACUBO score does not have a fixed scale. However, higher scores are still considered more "financially responsible."

	Northwestern	Vanderbilt	Washington U. (St. Louis)	Emory
True Total Re-serves	\$8.5 billion	\$3.2 billion	\$8.3 billion	\$6.7 billion
Primary Reserve Ratio	3.4	2.5	2.3	1.0
F-B Score	5	4.8	5	4.5
DoE Score	3	3	3	3
NACUBO Score	16.2	17.3	13.9	5.9

The scores presented in the table above indicate that Northwestern and these three peer

¹²For an example of the utility of these ratios see Professor Howard Bunsis' analysis of Wright State University's finances for the eponymous chapter of the AAUP, available here <https://thewebsiteofwrightstateuniversitysaaupchapter.files.wordpress.com/2018/10/000-2-howard-bunsis-fact-finding-presentation.pdf>

¹³<https://studentaid.gov/data-center/school/composite-scores>

¹⁴www.nacubo.org/Topics/Student-Financial-Services/Title-IV-Financial-Responsibility-Standards

institutions are all in excellent financial health, even given pandemic-era disruptions of the past two years. Despite narratives in news media that pandemic-era losses have been terrible for higher education budgets¹⁵, Northwestern and its peers seem to have emerged unscathed.

6 Financial Implications

On January 13th, 2022, Craig Johnson emailed a 2022 Financial Update to the Northwestern community¹⁶. In this email, he described the budget surplus of \$87.8 million as “a small operating margin” despite this being the largest budget surplus since 2015 (\$111 million). While this represents about 3.5% of the annual budget, it cannot be understated how much \$87 million can do for the campus community.

For a point of comparison, consider the \$15.9 million claimed by Northwestern from the federal Higher Education Emergency Relief Fund¹⁷. Using this money, the university disbursed \$2,000 checks to all PhD, DMA, full-time MFA students, and undergraduates receiving needs-based financial aid, providing a financial lifeline to many who were struggling. **The budget surplus alone is over five times larger than the amount of federal money used for these \$2,000 stimulus checks.**

In reference to the \$3.8 billion endowment growth, Craig Johnson also said in his January email that “Given that the value fluctuates, we should not take on additional expenses based solely on one year’s outsized returns.” Even though the university has spent from the endowment at a rate far slower than its growth when averaged over the past 3, 5, 10, and 20-year periods, just by spending *the target rate set by the Board of Trustees* the endowment will produce significantly more revenue for the university next year. The university uses two-year average values of the endowment to calculate the spending rate, so only half of the extra \$3.8 billion, or \$1.9 billion will be accounted for in next year’s spending. Even so, **just drawing 4.3% of this money will give the university access to an extra \$81 million in operating revenue compared to this year.** Again, we will note that this target spending rate is very conservative and that history indicates that endowment growth will far outpace this spending.

The budget surplus, endowment growth, increase in liquid assets, record amounts of research funding, and all the other metrics that have contributed to the university’s financial health during the COVID-19 pandemic do not exist in a vacuum. Instead, they exist at a university that runs on the the labor of grad workers whose stipend, already inadequate for many, will not keep pace with inflation over the next year. They exist at a university where dining workers had to authorize a strike just to get paid a living wage, and librarians, overworked after years of austerity budgets, have unionized to have a say over their workplace. This myth of austerity is dangerous not just because it is false, but because it pits workers against each other - it says to one group that if they were to

¹⁵<https://www.nytimes.com/2020/10/26/us/colleges-coronavirus-budget-cuts.html>

¹⁶<https://www.northwestern.edu/leadership-notes/2022/2022-financial-update.html>

¹⁷<https://www.northwestern.edu/sfs/help/faqs-heerf.html>

have their needs met, it would have to come at the expense of another group. By releasing this report, our goal is twofold: to show that Northwestern has been under-utilizing their available money for a long time, and that this very likely will not change until the university power structures themselves change.

7 Appendix A: Calculating Financial Viability Scores

7.1 True Total Reserves

The most important number for calculating these financial viability scores is the **True Total Reserves**. This is calculated by summing the unrestricted net assets along with the expendable, temporarily donor-restricted assets. These **True Total Reserves** represent the portion of the University's total wealth that they could actually, feasibly spend without betting on their ability to sell real estate or violating various donor agreements. These **True Total Reserves** more accurately reflects the University's real-world financial health.

Obtaining this number is somewhat complex and not directly stated in the University financial report. Walking through the calculation, however, may help to orient readers to university finances more generally.

To determine the **True Total Reserves** for FY 2021, we first take Northwestern's reported **Total Assets**, which represents the grand total of all the wealth Northwestern has. **Their total assets amounted to \$19,377,783,000 in FY 2021**, and increase of \$3.5 billion over last year:

<i>(in thousands of dollars)</i>	2021	2020
Assets		
Cash and cash equivalents	\$285,059	\$381,442
Accounts receivable, <i>net</i>	218,147	214,787
Contributions receivable, <i>net</i>	259,037	277,871
Notes receivable, <i>net</i>	136,111	146,657
Investments	15,143,205	11,576,232
Right-of-use assets—operating, <i>net</i>	159,206	—
Land, buildings, and equipment, <i>net</i>	3,177,018	3,258,694
Total assets	19,377,783	15,855,683

Northwestern, however, has a number of **Liabilities** which they are legally obligated to fulfill. These liabilities are mostly forms of debt, and they are shown below.

For FY2021, Northwestern's total Liabilities were \$3,315,455,000:

Liabilities		
Accounts payable and accrued liabilities	206,908	223,707
Deferred revenue	205,750	137,757
Deposits payable and actuarial liability of annuities payable	199,041	200,602
Lease liabilities—operating	165,623	—
Bonds, notes, and other debt payable, <i>net</i>	2,538,133	2,832,036
Total liabilities	3,315,455	3,394,102

When we remove Northwestern’s liabilities from its total assets, we are left with their **Net Assets**.

For FY2021, Northwestern’s Net Assets were \$16,062,328,000:

Net assets		
Without donor restrictions	9,863,772	7,782,322
With donor restrictions	6,198,556	4,679,259
Total net assets	16,062,328	12,461,581

However, the **Net Assets** are not the **True Total Reserves**. Northwestern cannot easily sell its building and land, so this wealth cannot be readily leveraged to pay for expenses. This is especially true of Northwestern’s most specialized scientific facilities and equipment. Thus, we subtract Northwestern’s various land, building, equipment, and incomplete projects. **Northwestern’s total land, buildings, and equipment amounted to \$3,177,018,000 in FY 2021.** The breakdown for these assets are shown below:

<i>(in thousands of dollars)</i>	<i>2021</i>	<i>2020</i>
Land	\$31,036	\$31,036
Construction-in-progress	30,832	45,983
Buildings and leasehold improvements	4,667,413	4,594,774
Equipment	718,130	703,454
Accumulated depreciation	(2,270,393)	(2,116,553)
Total land, buildings, and equipment, <i>net</i>	\$3,177,018	\$3,258,694

Are these the **True Total Reserves**? Almost. Northwestern has an **Endowment** composed of a large number of various funds created by donors (around 2,900).¹⁸ All these funds have different restrictions attached to them by the donors, and the university is legally obliged to obey the particular restrictions of a fund when spending against that fund.

As an important note, the **Endowment** referred to here in this report is **not** the same as the “\$15 Billion Endowment” discussed so much in the media; that \$15 Billion is the “Long-Term Balanced Pool.”

¹⁸There is also an additional 1,000 or so funds which “function as endowment.” The difference between “endowment funds” and “funds which function as endowments” is that the latter are created by the University itself under the direction of the Board of Trustees. Some of these are funds which are basically temporarily restricted funds which the Board of Trustees approve, while others are funds governed by general guidelines which University management gets approved by the Trustees.

In FY2021, Northwestern had Endowment funds totaling \$11,361,182,000.

(in thousands of dollars)	With donor restrictions				2021
	Without donor restrictions	Funds held in perpetuity	Accumulated gains (losses)	Total	Total funds
Institution-designated endowment funds	\$5,562,129				\$5,562,129
With donor restrictions					
Underwater funds		\$400	(\$28)	\$372	372
All other funds		1,893,812	3,904,869	5,798,681	5,798,681
Endowment net assets, end of year	\$5,562,129	\$1,894,212	\$3,904,841	\$5,799,053	\$11,361,182

Some of these funds are **Permanently Restricted Funds**, which means that Northwestern is allowed to spend the interest coming from the funds but cannot ever spend the principle itself. The point of these funds are to establish an endowment which can serve the University (and its workers!) for generations to come. **In FY2021, Northwestern had \$1,894,212,000 in Permanently Restricted Funds in their Endowment.**

Other endowment funds, however, are **Temporarily Restricted Funds**. Northwestern, under certain time-based or use-based conditions given by the donor, is able to spend the principle on these funds. **In FY2021, Northwestern had \$3,904,841,000 in Temporarily Restricted Funds in their Endowment.** This number can be calculated by taking the total of **Endowment** assets with donor restrictions in the table below and subtracting the column titled "Funds held in perpetuity."¹⁹

Lastly, there are **Unrestricted Endowment Funds**. These are the funds in the **Endowment** which the university is able to spend as it needs to without checking whether they are obeying the original donors' wishes. The University aims to keep roughly half its **Endowment** in **Unrestricted Endowment Funds**. **For FY2021, Northwestern had \$5,562,129 in Unrestricted Endowment Funds.** These funds are shown below:²⁰

¹⁹Northwestern also has a small number of "underwater funds." These refer to donor-restricted funds where the current value is below the original donation amount. This can happen, for instance, if the donation takes the form of various stocks which have since lost value. Northwestern has about \$372,000 in funds that are less than they were originally worth. In 2020, Northwestern saw about \$28,000 in losses from these underwater funds.

²⁰The University is able to spend **Unrestricted Endowment Funds** without violating donor agreements, but this does not mean the University can spend this **Endowment** money as it pleases. Northwestern's **Endowment** is still subject to Illinois **Uniform Prudent Management of Institutional Funds Act (UPMIFA)** which requires the university spend its **Endowment** "prudently." This legal requirement, however, is negligible for the calculation of the **True Total Reserves** because the **UPMIFA** allows the university to spend against the **Endowment** in order to avoid defaulting on liabilities and maintaining the basic functioning of the university. These funds, under extreme enough circumstances, are thus spendable, though no university would want to be in such a situation.

(in thousands of dollars)

2021

Nature of specific net assets	Without donor restrictions	With donor restrictions	Total net assets
Teaching, research, and program support	\$3,380,552	\$3,937,558	\$7,318,110
Student financial aid	886,967	1,144,384	2,031,351
Capital and operations	1,294,610	717,111	2,011,721
Endowment net assets subtotal	5,562,129	5,799,053	11,361,182
Pledges	—	259,037	259,037
Unexpended gifts	—	31,260	31,260
Annuity and other split-interest agreements	—	66,946	66,946
Student loan funds	63,392	42,260	105,652
Operating and plant	4,238,251	—	4,238,251
Total	\$9,863,772	\$6,198,556	\$16,062,328

The portion of the **Endowment** which contributes to the **True Total Reserves** are the **Unrestricted Endowment Funds** and **Temporarily Restricted Funds**. These are the portions of the **Endowment** which the university might feasibly spend. **In FY2021, Northwestern had non-permanently restricted endowment assets of \$9,466,970,000.**

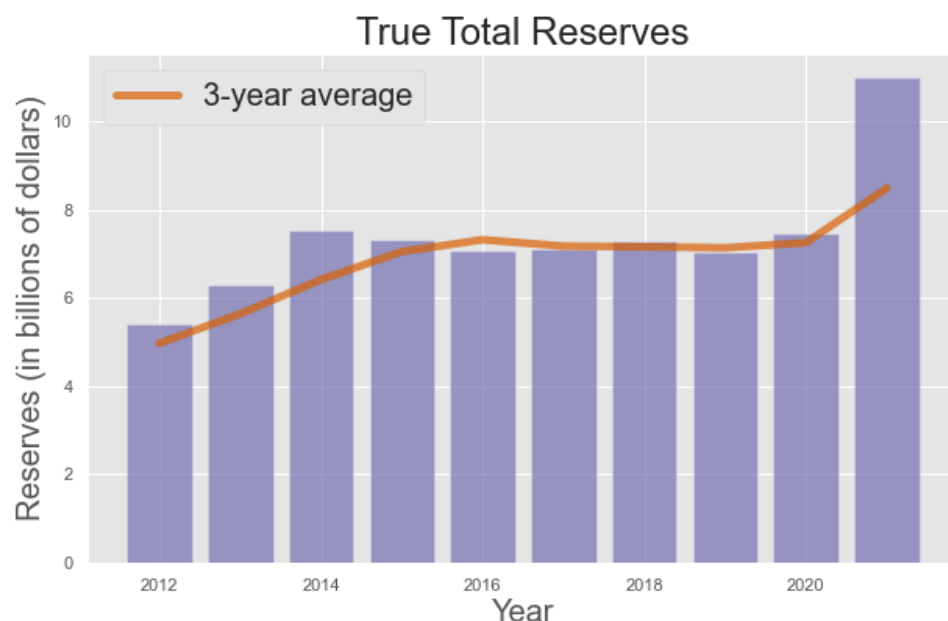
To find the **True Total Reserves**, then, we do the following:

True Total Reserves = Net Assets - Land,Buildings,Equipment - Permanently Restricted Endowment Funds

True Total Reserves = \$16,062,328,000 - \$3,177,018,000 - \$1,894,212,000

True Total Reserves = \$10,991,098,000

Over the past three years, Northwestern has average True Total Reserves of \$8,49,4360,333. This number is important because it represents the portion of Northwestern's wealth which could feasibly be used to pay for various incurred expenses.

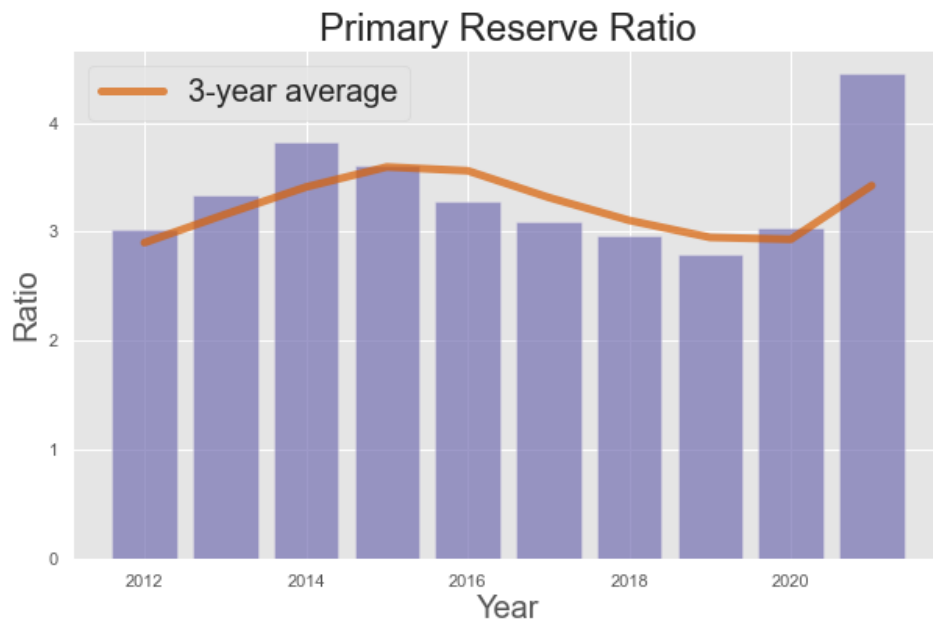


7.2 Financial Ratios

The aforementioned financial viability scores all consist of weighted averages of a variety of different ratios that compare different financial numbers against each other. Before we calculate the final scores to determine whether Northwestern has been “financially responsible” over the past decade, we’ll walk through the calculation of these ratios. **Primary Reserve Ratio (PRR):** Obtained by dividing True Total Reserves (\$10,991,098,000) by Total Expenses (\$2,471,588,000). This ratio, likely the most important, measures the wealth of a university against its expenses. A PRR of 0.5 or higher is considered to constitute excellent long-term financial health. A university with a PRR over 0.5 could pay all of its expenses for half a year without receiving a penny of incoming revenue through things like tuition or room and board or taking on any more debt.

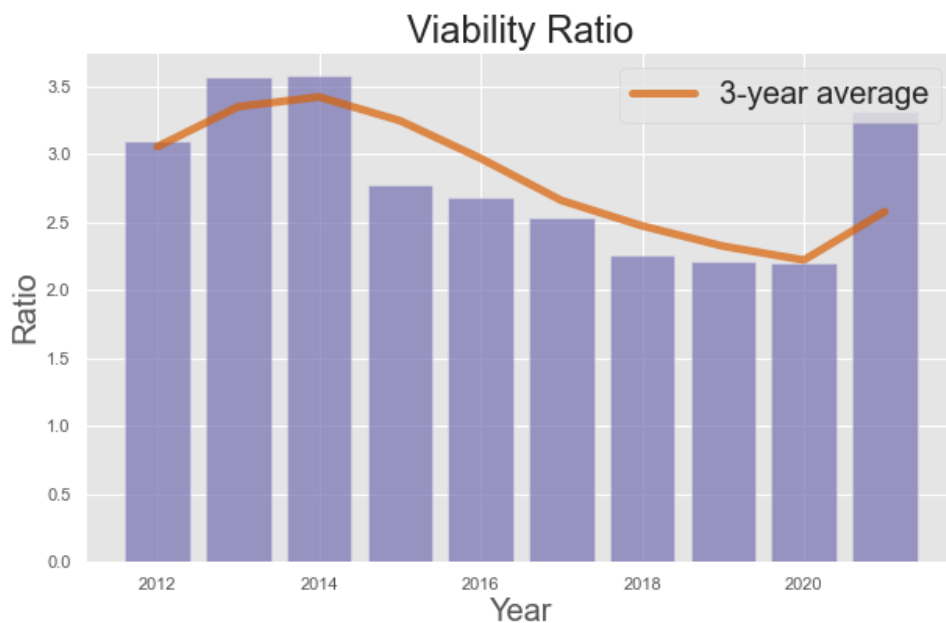
Northwestern’s Primary Reserve Ratio was 4.45 in 2021, with a three-year average of 3.43. This means Northwestern has enough money relatively easily on hand to pay all of its expenses for almost three and a half years without receiving any tuition/fees/room and board in the meantime or taking on any additional debt.

Below are the PRR values for Northwestern for the past ten years. As can be seen, Northwestern has long been in stellar health. **Even a \$1 billion increase in total expenses in 2021 would keep the yearly ratio above 3.**



Viability Ratio (VR): Obtained by dividing True Total Reserves (\$10,991,098,000) by Total Debt (\$3,315,455,000). The VR measures the wealth of a university against its debt, giving a picture of how burdensome Northwestern's debt is. Next to the Primary Reserve Ratio, this is the other major ratio for measuring long-term financial health. A Viability ratio greater than 2.5 is considered excellent.

Northwestern's Viability Ratio was 3.32 in 2021, with a three-year average of 2.58.

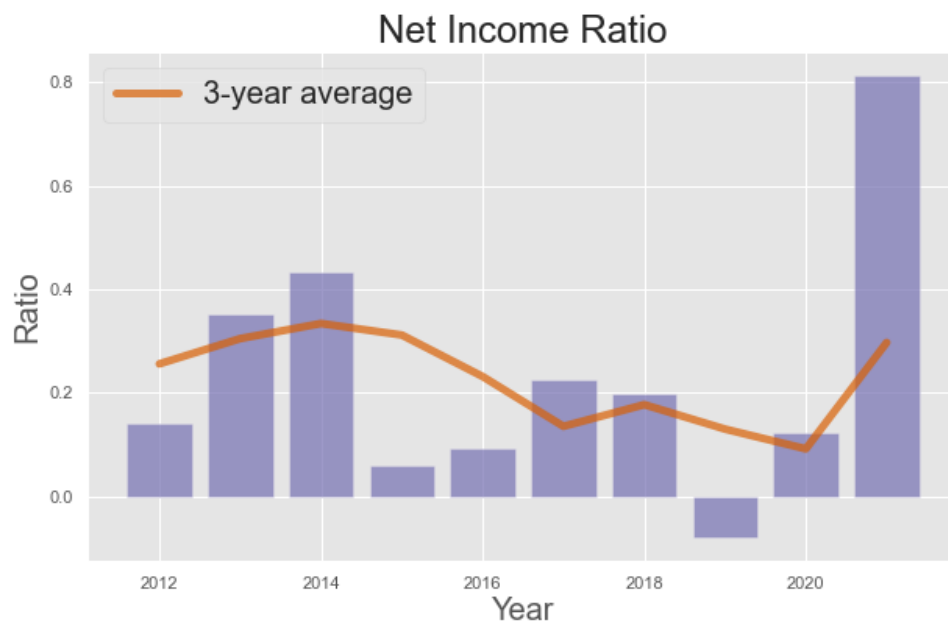


You may notice that this year's VR reverses a years-long trend of decreasing VRs. This is

due both to an increase in true total reserves as well as a decrease of total debt, which increased substantially in FY2018 due to the University issuing over \$425 million in debt to finance ambitious construction projects.

Net Income Ratio (NIR): Obtained by dividing the Change in Net Assets without donor restrictions from FY2020 to FY2021 (\$2,081,450,000) by Total Revenue (\$2,559,391,000). A NIR above about 5% is considered excellent, implying that the university was able to efficiently grow its assets with its earned revenue.

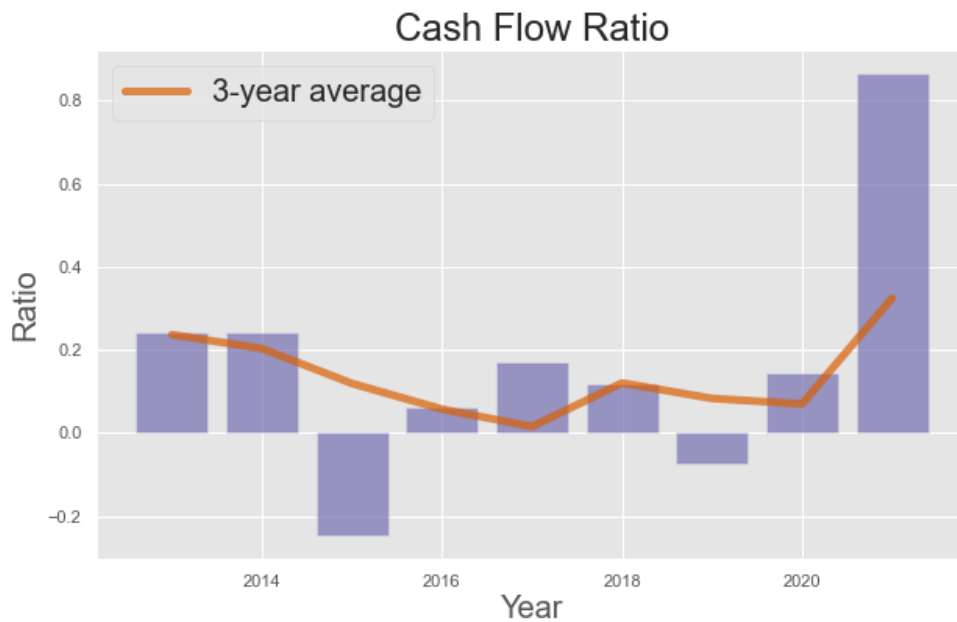
Northwestern's Net Income Ratio was 81.3% for FY2021, with a three-year average of 29.7%.



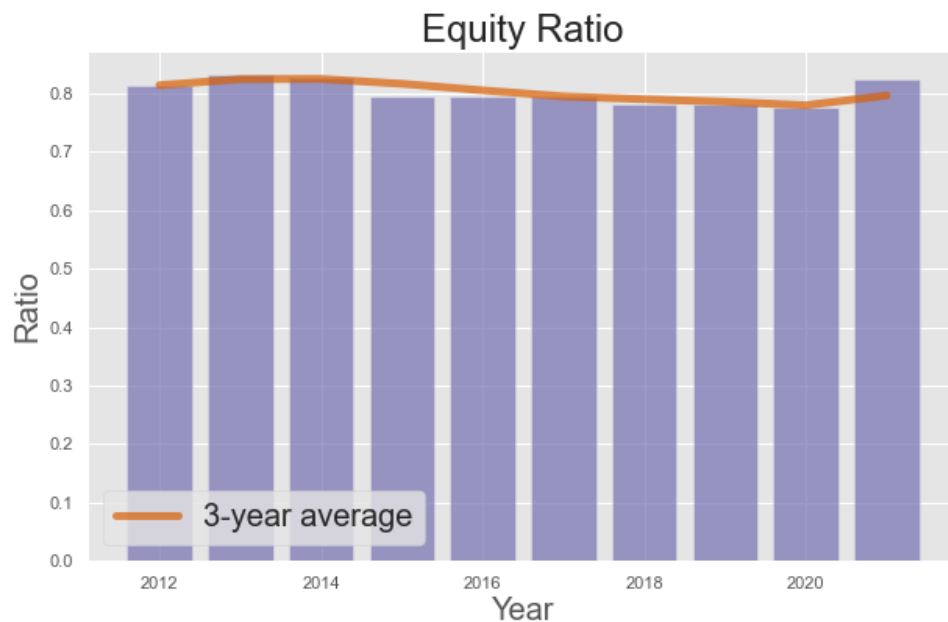
Cash Flow Ratio (CFR): Obtained by dividing the Operating Cash Flow (\$4,340,246,000)²¹ by the Total Revenues (\$2,559,391,000). A CFR above 5% is considered excellent, implying substantial cash remaining on hand after operational costs. This means that, after revenue is used to cover expenses, there is still a lot of cash left over to pay off debts and other liabilities; it also can be reinvested or used for other projects (such as raising the stipend to keep up with inflation!).

Northwestern Cash Flow Ratio was 86.7% for FY2021, a substantial increase from years prior. The three-year average for the CFR stands at 32.4%.

²¹The Operating Cash Flow is obtained by summing the Change in Net Assets without donor restrictions (\$ 2,081,450,000), Capital Depreciation (-\$181,647,000), and paper gains or losses from investments (\$322,352,000).



Equity Ratio (ER): Obtained by dividing the modified net assets, by the modified total assets. Modified assets are defined as total assets minus intangible assets, such as debts owed to the university that they can't feasibly spend since they don't have them yet. Similar to the viability ratio, this measures the university's liabilities against the assets it currently holds. The fact that Northwestern's equity ratio is so stable near 0.8 over the years indicates that they have always maintained assets about 5x greater than their liabilities.



7.3 Fichtenbaum-Bunsis Score

The Fichtenbaum-Bunsis composite score is a weighted average of scores assigned to the primary reserve ratio, cash flow ratio, viability ratio, and net asset ratio.

Ratio Scores						
	0	1	2	3	4	5
Primary Reserve Ratio	< -10%	-10% to 4.99%	5.00% to 9.99%	10.00% to 24.99%	25.00% to 49.99%	> 50%
Viability Ratio	< 0%	0% to 29.99%	30.00% to 59.99%	60.00% to 99.99%	100% to 249.99%	> 250%
Net Asset Ratio	< -5%	-5.00% to 0.00%	0.00% to 0.99%	1.00% to 2.99%	3.00% to 4.99%	> 5%
Cash Flow Ratio	< -5%	-5.00% to 0.00%	0.00% to 0.99%	1.00% to 2.99%	3.00% to 4.99%	> 5%

Variable	Weight
Primary Reserve Ratio	40.0%
Cash Flow Ratio	25.0%
Viability Ratio	22.5%
Net Asset Ratio	12.5%
TOTAL	100.0%

7.4 Department of Education Score

The Department of Education Financial Responsibility Score is a weighted average of scores assigned to the Primary Reserve Ratio, Net Income Ratio, and Equity Ratio.

$$\frac{\min(\text{Primary Reserve Ratio} \times 10, 3) \times 0.4 + \min(\text{Net Income Ratio} \times 50 + 1, 3) \times 0.2 + \min(\text{Equity Ratio} \times 6, 3) \times 0.4}{3}$$

DoE Composite Score

7.5 NACUBO Score

The National Association of College and University Business Officers (NACUBO) use a composite score that is a weighted average of the Primary Reserve Ratio, Net Income

Ratio, Return on Net Assets, and Viability Ratio.

$$\begin{aligned}
 & \frac{\text{Primary Reserve Ratio}}{0.133} \times 0.35 + \\
 & \frac{\text{Net Income Ratio}}{0.007} \times 0.1 + \\
 & \frac{\text{Return on Net Assets}}{0.02} \times 0.2 + \\
 & \frac{\text{Viability Ratio}}{0.417} \times 0.35 + \\
 & \hline
 & \text{NACUBO Composite Score}
 \end{aligned}$$