KEEPING COLLEGE AFFORDABLE:
HOW TO FUND PUBLIC UNIVERSITY OBLIGATIONS IN A LOW-RETURN ENVIRONMENT

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Public universities face a crisis in their funding. States have drastically reduced the funding they provide for public higher education, and tuition cannot keep bearing the burden. What can public colleges do to keep college affordable, and find the dollars they need to fund not only ongoing operations, but future investment as well?

In this paper, we discuss solutions on the spending side, the fundraising side, and on the investment side. By combining these strategies, public colleges may recoup from other areas what they’ve lost in public funding. The ultimate goal is to meet the organization’s spending needs, from operating expenses to research initiatives and expansion/enhancement projects, and to achieve that objective without sacrificing the long-term goal of educating our youth, a crucial contribution to our future.
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DEFINING THE PROBLEM

Public universities face a funding crisis. State budgetary constraints have resulted in greatly reduced public funding for education, due to a combination of lower state tax receipts, voter pressure to shrink government, budget overruns in other areas, and stretched pension funding. The end result is that public universities have less access to public funds to support their operating budgets. A university we interviewed for this paper noted that whereas public funds may have accounted for up to 90% of the school’s operating costs in the past, state spending makes up closer to 50% now. The question is: how can educational institutions make up this shortfall and continue to fund their ongoing obligations?

In this paper, we’ll look at this issue from several different angles, examining solutions on the spending side, the fundraising side, and on the investment side. By combining these strategies — and borrowing from some common strategies of private universities — public colleges may recoup in other areas what they’ve lost in public funding. The ultimate goal is to meet the organization’s spending needs, from operating expenses to research initiatives and expansion/enhancement projects, and to achieve that objective without sacrificing the long-term goal of educating our youth, a crucial contribution to our future.

How bad is the problem?

State spending decisions over the past 30 years have resulted in a long-term decline for higher education spending, a decline that accelerated after the 2008 financial crisis but began long before then. Even though overall spending on higher education has increased — since 2012, state spending on higher education has increased an average of 4.8% annually — the number of students has increased much faster, resulting in an actual per-student decline in public funding. Enrollment rose by more than 826,000 full-time students, or 8.0%, just between 2008 and 2016. (Center on Budget and Policy Priorities, 2017)

In addition to lower tax receipts since the 2008 crisis, states have focused their attention and funding to other areas such as public welfare spending and Medicaid. An analysis from Douglas Webber, associate professor
In the past three decades, average state and local funding per enrolled student has dropped by one quarter: in 1987, states spent $9,489 per student, on average. By 2015, that figure fell to $7,152. This means the average state spends $2,337 less today per full-time student than in 1987. (Education Next, 2018)

State spending per student (in 2015 dollars)

1987: $9,489
2017: $7,152

-$2,337 (25% drop)

Overall state funding for public two- and four-year colleges in the 2017 school year was nearly $9 billion below its 2008 level, after adjusting for inflation. (Center on Budget and Policy Priorities, 2017)

Higher education spending by states declined by $13.9 billion (17.5%) between fiscal 2009-2012. (State Expenditure Report, 2017)

Of 49 states analyzed (Wisconsin excluded), 44 spent less per student in the 2017 school year than in 2008. (Center on Budget and Policy Priorities, 2017)

In fiscal 1995, higher education comprised 12.9% of general fund spending, but only an estimated 9.9% of general fund expenditures in fiscal 2017. Over that same period, Medicaid went from 14.4% to 20.3%. (State Expenditure Report, 2017)

Between 2007/8 and 2017/18, published in-state tuition and fees at public four-year institutions increased at an average annual rate of 3.2% per year beyond inflation. (The College Board, 2017)

The average annual net in-state cost of tuition and fees of a four-year public college, after grants and scholarships, doubled in inflation-adjusted terms from $2,180 in 1997-98 to $4,140 in 2017-18. Including room and board, the average net price increased by $5,660 over this period to $14,940 — or nearly $60,000 for a four-year degree. (Education Next, 2018)
in the Temple University Department of Economics, concludes that “state Medicaid spending is the single biggest contributor to the decline in higher education funding at the state and local level.” (Education Next, 2018) Other areas seeing increases in spending include K-12 education, health and hospitals, and corrections.

The decrease in state and local funding has resulted in significant tuition increases, passing along costs to students instead of taxpayers. The Center on Budget and Policy Priorities states that annual published tuition at four-year public colleges has increased by 35% since the 2008 school year. In Louisiana, tuition has doubled, while it’s up by more than 60% in seven other states: Alabama, Arizona, California, Colorado, Florida, Georgia, and Hawaii. (CBPP, 2017)

Increasing the costs for students has a number of unfortunate consequences, particularly as tuition hikes outpace overall economic and wage growth. Rising public tuitions act as a deterrent for lower-income students, which can decrease the diversity of the student body and keep out the people who are most in need of public educational support. Higher tuition costs also often result in longer matriculation times and lower matriculation rates. Students either postpone graduation in order to supplement costs by working, or simply abandon their education prior to graduating. Lastly, higher tuition often means increased student loans, saddling students with debt before they even enter the workforce and contributing to the current student loan crisis.

The other unfortunate result of reduced public spending has been an overall reduction in quality. Tighter budgets have contributed to cutting faculty, limiting course offerings, and less investment in improvements.
CHANGE IN STATE HIGHER EDUCATION SPENDING PER STUDENT, INFLATION-ADJUSTED, 2008-2017

Source: Center on Budget and Policy Priorities, CBPP.ORG
and research. High-quality, modern education requires public universities to continually reinvest to stay current with technology, hire excellent staff and faculty, and continue to grow and expand student resources. The bottom-line function of public universities is to make higher education possible for interested students of all backgrounds, to maintain student engagement, and to enable graduation. All of these objectives suffer when public funding decreases and tuition hikes become the backstop.

**Finding a Solution: What Won’t Work**

It’s natural for public colleges to turn back to the original source for additional funding, looking for ways to petition the state for the needed expenses. Some universities resort to hiring lobbying consultants in a bid to regain lost revenue from the government. However, reports from some colleges indicate that this action has a poor risk/return tradeoff; even if a lobbyist has some success, it’s not likely to move the needle enough to make it worth the expense of the lobbyist. Given the current tax and budget situation, looking to the state for more money is unrealistic for most public universities.

Continuing to raise tuition is another potential solution that’s not really a solution. Not only is this clearly unpalatable, higher tuition costs also undermine the objectives of public institutions. The consequence of rapidly rising tuitions over the last few decades is well documented, along with the impacts it can have on the student body, student opportunities, and the overall quality of education. It’s time for public institutions to look beyond tuition increases to other avenues for replacing lost funding.

**Fundraising Solutions**

There are some innovative, unique fundraising strategies that may help public universities make up some of their funding gap. Public universities may not have previously focused on fundraising as a core strategy because it has not necessarily been as substantial a part of their budgets in the past. However, the current situation has made fundraising potentially a more central component of funding, and there are strategies that may be helpful as universities look for ways to make up their budget shortfalls.

**Corporate sponsorship**

One such unique strategy is to develop corporate sponsorships, which can serve a multi-purpose function. Creating a corporate sponsorship involves working closely with a local firm to develop a program or programs tailored to train students specifically for employment at that particular firm or in similar positions.

With this type of program, the corporation benefits by reducing the learning curve of students joining their workforce. They are able to participate in crafting the curriculum to train students on their specific products, culture, clients, and processes. Moreover, programs can be designed to include internships and class projects by which students can help contribute to the firm’s needs while still in school, whether providing short-
term fill-in needs or helping to solve longer-term, complex problems the company faces.

Students also benefit greatly from corporate sponsorship programs, even beyond the funding. In the past, students have experienced huge voids between broad, outdated university curricula and the practical foundation of skills needed for real-world employment. This type of program provides specific training that is more impactful to students’ careers and provides real-world practical experience. It often results in much higher placement rates after graduation; some sponsorships might even guarantee placement as part of a scholarship program.

Corporations participating in sponsorships can choose from a variety of avenues to contribute to the university and accomplish their mission. This could range from scholarship programs with specific criteria and curricula to endowed chairs or contributions to the university’s technology and infrastructure. The details of any such program depend on the needs of the company involved. We anticipate seeing a greater overlap and collaboration between corporations and public universities going forward, to better serve the needs of both students and private industry.

A Public University in the Cal State system we spoke with is no stranger to corporate sponsorships. The programs implemented by this college have been hugely successful for the university, the students, and the donor firms. The university, thanks to these programs, has developed unique specializations that attract students. Students are provided with unparalleled opportunities, including 100% placement rates in some areas of study and predictable career trajectories. The companies have the opportunity to adjust the educational model to fit the actual employment demand and offer training tailored to their needs. Students come prepared to meet the challenges they’ll face in their working lives, and graduate ready to jump in. This university offers corporate sponsorship and scholarship programs in:

- Finance
- Agriculture
- Engineering
- Construction management
- Computer science
- Pharmaceuticals and chemistry

Alumni as a source of funding

Private universities know the value of their alumni base as a critical source of funding. Public higher education can follow their example, tapping into the potential of their past students to contribute to ongoing and future operations. In the current environment, alumni of public institutions may not be aware of the extent to which taxpayer dollars no longer provide adequate funding, and simply raising that awareness can open up doors for fundraising opportunities. On the other hand, public colleges may be challenged in their fundraising by a perception of bureaucracy, and would be well served to address that perception in their fundraising strategies.

State universities can take cues from private colleges and even charities to learn fundamental fundraising skills. Reaching out to alumni has an advantage, in that they already have feelings of loyalty to and appreciation for their alma mater. They want future generations of students to have similar experiences to those which launched their own careers and life paths, and it’s the organization’s job to tap into that.
**Fundraising Yield by Tactic in a Mature Organization**

The Nonprofit Fundraising and Administrative Cost Project surveyed 1,540 organizations to examine the cost of fundraising by tactic, summarized here:

<table>
<thead>
<tr>
<th>Tactic</th>
<th>Percent using tactic</th>
<th>Median amount raised per $1 spent</th>
<th>Highest value among lowest 25% of responses</th>
<th>Lowest value among top 25% of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct mail</td>
<td>43</td>
<td>$10</td>
<td>$4.50</td>
<td>$25.90</td>
</tr>
<tr>
<td>Telephone calls</td>
<td>9</td>
<td>$11.90</td>
<td>$2.60</td>
<td>$42.00</td>
</tr>
<tr>
<td>Special events</td>
<td>62</td>
<td>$3.20</td>
<td>$2.00</td>
<td>$6.30</td>
</tr>
<tr>
<td>Major gifts</td>
<td>66</td>
<td>$24</td>
<td>$8.40</td>
<td>$100</td>
</tr>
<tr>
<td>Capital campaign</td>
<td>16</td>
<td>$20</td>
<td>$8.00</td>
<td>$53.80</td>
</tr>
<tr>
<td>Planned giving</td>
<td>20</td>
<td>$20</td>
<td>$7.80</td>
<td>$100</td>
</tr>
</tbody>
</table>

Source: Benefactor, https://benefactorgroup.com/fundraising-return-on-investment/

**Tips for Alumni Fundraising**

**Make an Emotional Connection**

Connect to your alumni on a personal, emotional level. Help them remember why they love your school, and let them know what their gifts will mean for future students.

**Make it Specific**

Ask donors to give for specific projects, such as a new science lab, a scholarship, or funding for the basketball team. This helps potential donors to visualize exactly where their dollars are going and the impact they will have.

**Segment Your Audience and Build Long-Term Relationships**

Be strategic about how you raise funds. Recent graduates may not have the income that will allow them to make large donations, but that doesn’t mean you can’t begin building the relationship. Ask for small donations and let them know the impact of their gifts. You can approach more senior alumni with a different approach, making more significant asks of those with a greater ability to give.

**Cultivate Major Donors**

Private universities know that while small gifts are important and helpful, the majority of their funding will come from a small number of major donors. But these donors may require significant “courting,” and fundraisers should not be deterred by the long slow process of cultivating these individuals.

**Answer “Why”**

Remind donors that higher education can boost the economy and change the world, resulting in the next generation of scientists, artists, engineers, and writers.
Fundraising is not free, however, and universities can expect to face some costs. Studies show that the average yield is $1 dollar for every 24 cents spent (Benefactor), but that can vary widely depending on the fundraising program. New programs may need time to ramp up before they become that effective.

**INVESTMENT SOLUTIONS**

Strategic fundraising can help make up some of the funding shortfall; the other crucial direction to turn is to your investment portfolio. As noted in the paper’s title, we would term our current environment as a low-return environment, where investors cannot expect the same long-term earnings potential as seen in the past. With historically low interest rates and high equity valuations, it may be challenging to meet investment goals. However, there are still solutions that organizations can adopt to bolster their portfolio returns if they are willing to examine and adjust their strategy in key ways.

**A LOW-RETURN ENVIRONMENT MAY BE HERE TO STAY: WHY?**

- Demographics provide some ideas of what the future holds; the Western world and Japan are aging. Longer life expectancies and lower fertility and birth rates will negatively affect the long-term growth potential and productivity of the United States and other developed nations.

- The Federal Reserve has begun to unwind its monetary stimulus from the 2008 financial crisis, and we are likely to see tighter monetary policy over the next few years.

- Globally, interest rates are historically low. Real interest rates on 10-year U.S. Treasury are less than 1% (as of 9/30/2018), meaning that at the current rate of real return, it would take more than 100 years to double your money after inflation by only investing in 10-year U.S. Treasury bonds.

- Actual experienced nominal returns have been declining for decades; see the chart on the following page, “Four decades of moderating returns.”

- U.S. interest rates are near the low end of their long-term historical range, providing fixed income investors with little assurance of breaking even after inflation. Government bond yields of many developed countries remain negative or near zero, setting a low baseline for investors’ expectations.

- Equity P/E ratios are largely at or above historical averages, indicating that equities may be at full valuations. The S&P 500 P/E ratio, at 21 on 8/31/18, is 29% higher than its 2010-2015 average and 74% higher than its February 2009 low.

“THE STOCK MARKET’S return over the next decade is likely to be well below historical norms.”
~ Hulbert, The Wall Street Journal, 2018
Managing spending is critical, of course; you can see in the chart on page 10 the impact that spending rates have on a portfolio. Begin by revisiting your spending rates to ensure they are in line with your long-term portfolio goals in light of future return expectations. But nobody ever saved their way to growth. The bottom line is the importance of portfolio growth, and we have some ideas for improving the long-term growth potential of your portfolio, helping you to achieve your funding goals.

**A HYPOTHETICAL $10 MILLION PORTFOLIO** invested in a 70% stock/30% bond portfolio would have grown to $35.0 million in the ten years ending in 1985. With a 5% annual end-of-year spending rate, it would have been $21.0 million at the end of the period. A similar $10 million portfolio would only be expected to grow to $16.3 million in the ten years ending in 2027; with the same 5% annual spending rate, the portfolio would actually decline to $9.8 million.*

*Based on S&P 500 and Bloomberg Barclays Aggregate Bond Index returns (1976 - 1985), assuming no spending or management fees, and quarterly rebalancing. It is not possible to invest in an index. Past performance does not guarantee future results. Prospective returns for the ten years ending in 2027 are based on Arnerich Massena’s 2018 capital market assumptions.

According to the 2017 NACUBO-Commonfund Study of Endowments, the nominal 10-year average annual real return fell to 4.6% from last year’s 5.0%. However, average effective spending rose to 4.4% in FY2017 from 4.3% a year ago.

~ NACUBO-Commonfund, 2017

Effect of Spending Rates on Long-Term Growth

Growth of $1,000, Inflation-Adjusted, 70% Stock/30% Bond Mix, 1960 - 2017

A 5% spending rate has been difficult to maintain over time.

4% spending
5% spending
6% spending

Sources: S&P, Bloomberg Barclays, Ibbotson, Morningstar Direct
Stocks represented by the S&P 500 Index, bonds represented by Ibbotson’s Intermediate-Term Government Bond Index through 1/31/76 and Bloomberg Barclays Aggregate Bond Index from 2/1/76 - 12/31/17
This model assumes the entire spending occurs annually at the end of each year, and that all dividends are reinvested. Performance does not account for any management fees, although you cannot directly invest in an index.
This is for illustration only; past performance is no guarantee of future results.
**Invest more aggressively**

A typical goal for an endowment is to achieve a 5% real return over inflation over the long term. This is difficult to achieve in any environment, and what may be called a “naive portfolio” is not likely to meet this goal over time (based on the expectations outlined in the chart on p. 9). A “naive portfolio” refers to a typical 70/30 portfolio of 70% stocks and 30% fixed income. This allocation is appropriate for a long-term investor and represents a common starting point for building an asset allocation strategy.

Investing more aggressively in growth assets like equities can make a significant difference in long-term portfolio return. Even if future expectations for equities are low, they are higher than expectations for fixed income. Institutions may be hesitant to take on the accompanying additional risk, but consider your true time horizon. Most endowments are meant to be managed in perpetuity, meaning that the actual time horizon of the portfolio is virtually infinite. A longer time horizon allows for a more aggressive investment strategy because there is more time to recover from market downturns and recoup any losses. With a “forever” timeline, endowment portfolios may be able to take on more risk than they have traditionally.

On the other side of the same coin, strategies should minimize their cash and fixed income holdings. Cash, for the most part, actually drains the portfolio of real value, as it rarely keeps up with inflation. Some fixed income is appropriate for risk management, but with fixed income’s lower long-term return expectations, organizations may want to consider reducing the allocation to fixed income in their portfolios.

**Seek alpha: invest actively**

Passive management allows investors to earn market returns by investing broadly across market segments to match index returns. The advantage of passive investment management is that it generally costs less than active management because index funds, or passively managed funds, simply replicate index holdings. Active investment managers seek to generate alpha — return over and above the index, or market, returns. Actively managed funds generally have higher investment fees because the portfolio management costs are likely to be higher.

Our research has demonstrated that while both active and passive investment management can play an important role in a portfolio, there are some asset classes in which a disciplined and thoughtful approach to active investment management can add long-term value to the portfolio’s return. In efficient asset classes, such as U.S. large cap equities, passive funds may provide adequate market exposure. In less efficient asset classes, however, such as U.S. small cap and international, index funds expose investors to a very small proportion of the available opportunities, leaving a broad opportunity set available for active managers.

Active managers also have the distinct advantage of being able to adjust to market conditions, whether to aggressively pursue opportunities or to act defensively in times of volatility. Passive managers have no such ability, and passive investors will never outperform the market.

“**Trustees of endowed institutions are the guardians of the future against the claims of the present. Their task in managing the endowment is to preserve equity among generations.**”

~ James Tobin, 1974
It’s important to remember that not all active management is alike, however. For active investors, manager selection is critical and can make all the difference in long-term outcomes. For example, Arnerich Massena’s strategic, disciplined approach to active manager selection involves looking at several key manager characteristics we believe result in superior long-term performance, including alignment of interests, specialization, discipline, long-term approach, early adoption, and low turnover. Our process has demonstrated ongoing success, with a long track record of active manager outperformance.

**Invest more in alternatives**

Over time, non-profit institutions have demonstrated a steady increase in their allocations to alternative strategies, including private equity, real assets, private real estate, and hedge funds. This shift comes for several reasons:

- Public markets are becoming ever more concentrated, with fewer opportunities available, especially in smaller and more specialized asset classes.

- There is a tremendous diversification benefit to using private markets and alternatives over public markets only.

A 2018 study by Michael Azlen of the Chartered Alternative Investment Analyst Association looked at the largest five endowments, including Yale and Harvard, which the study notes have achieved an average 20-year annualized return of 11.2%, or 5.2% higher than a traditional 60% stocks/40% bonds portfolio would have earned. The study has this to say about why: “The top five endowment funds have consistently achieved attractive investment returns with moderate volatility due to their multi-asset approach to investing, their strategic approach to asset allocation, and their significant exposure to alternative asset classes.” (Azlen, 2018)

A study by Cambridge Associates also found that endowment portfolios with higher allocations to alternative investments fared much better than those without (see the chart on page 13).
Exploit the illiquidity premium

With a long time horizon, endowments are able to forgo some liquidity in their portfolio. This is a tremendous advantage; as liquidity comes with a cost, so illiquidity can bring a premium. For investors who are willing to have some of their portfolio invested in illiquid assets, there are broad opportunities in private markets, including private equity and private real estate, among other investments. Increasing the proportion of alternative investments in your portfolio can make a significant difference to your long-term return expectations.

Educational institutions generally have an opportunity to exploit this illiquidity premium, but should also be careful to maintain appropriate liquidity in their overall portfolio in order to avoid forced selling. Consider both mandatory liquidity needs, such as capital calls and spending, and discretionary needs, such as having liquidity available to take advantage of opportunities that may arise in the market.
**Define risk and manage volatility**

Risk has different faces, and in building your investment strategy, it’s important to identify the types of risks that most affect your organization. Asset allocation models typically measure “risk” as standard deviation of annualized return, which helps set volatility expectations. But risk can mean more than volatility. It can also mean:

- **Shortfall risk:** Not generating enough return to meet investment objectives over your time horizon

- **Capital impairment risk:** A permanent loss of capital on the total portfolio or on a single investment

- **Peer risk:** Performing below the investor’s peers, as measured by size & type

- **Benchmark risk:** Performing below an index-only portfolio that has the same objective

- **Liquidity risk:** An inability to meet liquidity needs within any given market scenario

- **Inflation risk:** Underperforming relative to inflation

- **Concentration risk:** Too much exposure to one investment

An investor’s perception of risk can influence the long-term allocation target decision in a number of ways. For instance, an investor concerned with inflation risk may include a higher proportion of inflation-sensitive assets, or an investor who views peer risk as significant may choose an allocation similar to that of peers. Identify your risk profile and define what risks are acceptable and unacceptable.
It is helpful, when developing an asset allocation, to run a “Monte Carlo analysis” (a popular outcome simulation method) on prospective portfolio allocations. By seeing both the best, median, and worst outcomes of different strategies, you are in a strong position to weigh the risks and benefits of various different strategies.

*Maintain a long-term focus*

Lastly and possibly most importantly, focus on the long term in your investment portfolio. Build a strategy that matches your institution’s tolerance for risk and long-term spending objectives. Craft an investment policy that will ensure a disciplined, measured approach that is not impulsive or based on fear or greed. Your targets can leave enough room for dynamic tactical tilts when appropriate, but should be tight enough that periodic rebalancing is necessary. A succinct rebalancing policy to bring the portfolio back to allocation targets from time to time can help to mitigate long-term risk and lock in gains.

**Conclusion**

Public universities are facing something of a crisis. Caught between the rock of reduced government funding and the hard place of already-skyrocketing tuition, funding basic operations has become much more difficult, and finding funds for new investment and improvements has become nearly impossible. Our objective with this paper has been to provide some clear-cut solutions that can help keep public higher education affordable. By adopting new fundraising techniques and considering potential portfolio options, higher education may be able to create new funding sources that can fill in the gaps and prevent further tuition hikes.

Please contact us if you would like to discuss your institution’s investment portfolio. We would be pleased to discuss your needs in detail, and offer insight into how we can help craft an investment strategy that will assist you in meeting your objectives now and in the future.

“**Risk** is what’s left over when you think you’ve thought of everything.”

~ Carl Richards, author and New York Times columnist
ABOUT ARNERICH MASSENA

Founded in 1991, Arnerich Massena is a Portland-based independent investment advisory firm servicing private clients, endowments, foundations, charitable organizations, trusts and estates, and corporate pension and profit sharing plans. Our mission is to secure the future for our clients, colleagues, and communities by investing with vision, passion, and purpose. We are distinguished by exceptional client service, unbiased research, and a long history of providing creative, high-quality investment advice.

The firm provides traditional portfolio management and investing for clients, and is also widely known for successfully investing in high-impact areas like water resources, sustainable agriculture, fishing, healthcare, and clean energy technology. Arnerich Massena strives to be a business that exemplifies both corporate citizenship and professional service, and has received awards for its innovations in corporate philanthropy. More information is available at www.arnerichmassena.com.

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ENDNOTES

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