Furlough and Finance at UArizona in the Wake of COVID-19

Presented to the University of Arizona Executive Leadership Team

Presented by the General Faculty Financial Advisory Committee (GFFAC)

August 6, 2020

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Acknowledgements

GFFAC extends its thanks to a number of people and working groups who made themselves available to meet, answer questions, and share work and information relevant to GFFAC's charge and the goals of this report. Such individuals and groups include Chief Financial Officer Lisa Rulney, Provost Liesl Folks, and members from the various Financial Sustainability Emergency Response Task Force groups.

Committee Description and Charge

Creation of GFFAC

On June 15 the Coalition of Academic Justice at University of Arizona (CAJUA) submitted a petition to shared governance activating a General Assembly. Following the June 25 General Assembly, members of the UArizona general faculty voted to delay the furlough until mid-September and create an ad-hoc committee charged with "working with executive leaders to carefully study, revise, clarify, and communicate the furlough/salary-based furlough/pay cut plans to employee stakeholders."[1] On June 30, President Robert Robbins agreed to delay the University Furlough Plan from July 1 to August 10, 2020. On July 10, the Chair of the Faculty assembled the General Faculty Financial Advisory Committee (GFFAC) consisting of members of the faculty, staff, and a graduate student, including members of CAJUA.

GFFAC was created in accordance with our Faculty Bylaws:

> *At times, ad hoc committees may be created to explore, define, and/or address issues of immediate concern to the faculty. If it is an ad hoc committee of the General Faculty, then the Chair of the Faculty shall appoint its members. If it is an ad hoc committee of the Faculty Senate, then the Vice Chair of the Faculty shall appoint its members. The appointment of ad hoc committee members shall be done by the Chair or Vice Chair only after consultation with the Faculty Senate Executive Committee, from names suggested by the Nominating Committee or by other members of the General Faculty. Ad hoc committee charges will contain a duration and reporting date, as specified in the Constitution, Article VII, Section 5.*

Committee Duration

The committee was officially established to begin work and schedule meetings on July 10, 2020. While the furlough plan is currently delayed until August 10, 2020, the committee may choose to meet regularly to assist with financial planning and proposals as additional data becomes available for one calendar year (until July 10, 2021), at which time the committee charge will be reviewed, evaluated, and recommended for revision to become a permanent committee or be dismissed as a temporary committee.

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[1] June 25, 2020 University of Arizona General Assembly agenda, https://facultygovernance.arizona.edu/article/general-assembly-thursday-june-25-2-3pm

Committee Members

Decisions for Committee Membership was conducted through a nominations procedure via the General Faculty. A list was composed by the Chair of the Faculty and voted on by the Senate Executive Committee.

The committee members are as follows:

Brian Berrellez
SPBAC / APAC / Staff
College of Agriculture and Life Sciences

Christina Rocha
Staff
Research, Innovation and Impact

Farid Matuk
CAJUA / Faculty
College of Social and Behavioral Sciences

Guadalupe Lozano
Faculty
College of Science

Jessica Summers
Chair of the Faculty / Faculty: **Co-Chair**
College of Education

Mayela Trevino
Staff
College of Education

Marcia Klotz
CAJUA / Faculty
College of Social and Behavioral Sciences

Mona Hymel
Senator / Faculty
James E. Rogers College of Law

Ravi Goyal
Senator / Faculty
College of Agriculture and Life Sciences

Ron Hammer
Senator / Faculty
College of Medicine, Phoenix

Russ Toomey
CAJUA / Faculty
College of Agriculture and Life Sciences

Ruth Oropeza
Graduate Student
College of Social and Behavioral Sciences

Scott Cederburg
Faculty: **Co-Chair**
Eller College of Management

Committee Charge

GFFAC is a temporary, ad-hoc committee established to work intensely with University of Arizona administrators to conduct a “deep dive” into the financials of the university, and develop a proposal to mitigate some or all of UArizona anticipated losses via a report that outlines possible solutions/recommendations based on our analysis. Guidance for the role of this committee as a body of shared governance working in partnership with UArizona administration is outlined in the Memorandum of Understanding.[2]

The committee will be tasked with **cooperation**, **communication**, and **education** of the university community at-large based on what is learned. More specifically:

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[2] University of Arizona Memorandum of Understanding for Shared Governance was last revised in 2005 and signed in 2018: https://facultygovernance.arizona.edu/sites/default/files/mou_2018-summers.pdf

1. **Cooperation**. Committee members will be required to keep an open mind and put any personal assumptions aside about others' decisions and motivations. All participants will be expected to work together in a courteous, respectful manner.

2. **Communication**. A preliminary plan developed by the committee in partnership with administrators will be formally presented at the August 3rd 2020 meeting of Faculty Senate, during and after which Senators will have the opportunity to review the plan, ask questions, and formally recommend aspects of the plan on behalf of Faculty Shared Governance. Committee members may also be asked to present plans at other meetings of shared governance, such as SPBAC, the Committee of Eleven, etc.

3. **Education**. The committee's primary charge is to learn and understand the complex financial situation of the University of Arizona before, during, and after the COVID-19 crisis, so that informed decisions can be made with a complete understanding of financial considerations and consequences. Thus far, it has been challenging for faculty to understand these complexities based on their limited formal involvement in financial matters at the university level. If we want faculty, staff, and students to understand the complexities, we must understand it well enough ourselves to explain it to others. Therefore, it is critical that committee members take the role of learners AND educators so that our university community can truly understand what data and decisions will allow us to move forward with a mitigation plan that preserves our ability to carry out our land grant mission, i.e., educate Arizonans and beyond, while preserving the jobs (staff, faculty, students), student support services, and research and outreach infrastructure necessary to carry out that mission.

Report Goals

Research Options and Provide Recommendations

Determine possibilities or options for the smoothing or easing the immediate burden of a financial shortfall, particularly on employees

Increase Understanding at Scale

Help educate our constituents, namely UArizona Faculty, Staff, Graduate Students and related stakeholders, and gain an understanding of data, models, assumptions, and surrounding current financial mitigations strategies

Increase Participatory Capacity and Awareness

Increase awareness for the community, shared governance bodies, and leadership

Restore Active Shared-Governance Practices

Ensure elected faculty representation in all special task force groups, and compliance with Arizona State Legislature faculty governance law ARS 15-1601B3, and UArizona shared governance Memorandum of Understanding (MOU), passed by UArizona Faculty Senate in April 2005

Disclaimer and Continuing Charge

GFFAC is an advisory committee operating in alignment with shared governance principles outlined in the Arizona Revised Statutes (ARS) and UArizona's MOU. This report summarizes GFFAC's work, research, and recommendations in response to its short-term charge, namely to develop a proposal to help mitigate UArizona's losses in a manner that lessens or eliminates the financial burden imposed by the May 1st, 2020 proposed Furlough and Furlough-based Salary Plan (FFSP) on UArizona employees, particularly faculty and staff. Given the compressed timeline for this initial work, GFFAC acknowledges the possibility that addenda to this report or additional reports may occur in the future. For example, not all survey data collected by GFFAC has been analyzed or reported here. The intended audience for this report includes UArizona Executive Leadership, Senior Leadership, Faculty, Staff, Students, as well as the general public.

Data Requested and Received

GFFAC requested de-identified UArizona employee salary data, including information on base salary, FTE, grant/sponsored projects funding, and furlough rates. GFFAC also requested disaggregated estimated impacts from COVID-19 crisis, including revenue sources, expenses, and mitigation strategies.

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[3] According to Arizona Revised Statute-15-1601B, Subject to the responsibilities and powers of the board and the university presidents, the faculty members of the universities, through their elected faculty representatives, shall share responsibility for academic and educational activities and matters related to faculty personnel. The faculty members of each university, through their elected faculty representatives, shall participate in the governance of their respective universities and shall actively participate in the development of university policy. https://www.azleg.gov/ars/15/01601.htm

GFFAC received aggregated summaries of projected financial losses based on a “moderate” model scenario.[4] At the time of this report, GFFAC still has outstanding questions in relation to these summaries that include what assumptions shaped the stagnant scenario models and what thresholds – positive or negative – determine "toggling" from one planning scenario to another. GFFAC also received other data sources including: utility expenditures, FY20 philanthropy and investments, FY20 Net Tuition Revenue (NTR), FY20 operating funds, state funding trends, student enrollment, and alternate furlough modeling output.

Work Completed by GFFAC

To date, the work of GFFAC has included 35 hours of meetings as a full committee and well over 100 hours of research (between July 13 and August 3, 2020). Since the committee was formed on July 10, 2020, GFFAC met a total of six times with Chief Financial Officer Lisa Rulney and Provost Liesl Folks. GFFAC also met with several working groups in the UArizona Financial Sustainability Emergency Response Task Force (FSERT) and the Public Health Re-Entry Team, as indicated in the table below. In alignment with its charge, GFFAC also created a faculty and staff survey designed to gather input on UArizona proposed furloughs and financial mitigation strategies.

[4] CFO Rulney, May 4 presentation to Faculty Senate

Summary of GFFAC Efforts

Date	Category	Item
Daily since July 13	Meetings	GFFAC
Twice weekly since July 13	Meetings; Q&A	Lisa Rulney, Liesl Folks, and Nicole Salazar (last two weeks)
July 20	Discussion; Q&A	Nicole Salazar (about Operational Efficiencies FSERT)
July 22	Meeting; Q&A	Capital Projects FSERT
July 23	Meeting; Q&A	Student FSERT
July 27	Meeting; Q&A	Workforce FSERT
July 29	Survey	Data collected from approximately 4,000 employees
July 31	Meeting	Public Health Re-Entry Team
August 3	Presentation	"Furlough and Finance at UArizona in the Wake of COVID-19" at Faculty Senate
August 5	Discussion; Q&A	"Furlough and Finance at UArizona in the Wake of COVID-19" at SPBAC
August 6	Report	"Furlough and Finance at UArizona in the Wake of COVID-19"

Survey Results

Distribution

To gather input from UArizona employees and key stakeholders who were likely to be impacted by the furlough and furlough-based salary reduction plan and other financial mitigation strategies, GFFAC created and disseminated a survey via Qualtrics for all UArizona faculty and staff employees. The survey was distributed to faculty and staff listservs beginning July 27, 2020; the survey was closed on July 29, 2020.

Survey Participants

The survey received 3,991 responses. A total of 1,175 respondents identified as faculty members (33% of the total faculty) and 2,816 respondents identified as staff members (16% of the total staff).

Of faculty members surveyed, 45% were tenured, 24% career track, 12% tenure-track, 10% other (including 3.71% clinical faculty), 7% continuing, and 2% continuing eligible. The vast majority (75%) of faculty members surveyed are advisors or mentors to graduate students, suggesting the financial mitigation strategies that affect faculty may also substantially impact the research/career trajectories of their graduate students.

For staff survey participants, they were categorized using University Career Architecture Project (UCAP) classifications as displayed in Figure 1. Reported salaries and expected furlough cut savings plan percentages are reported in Figures 2 and 3, respectively.

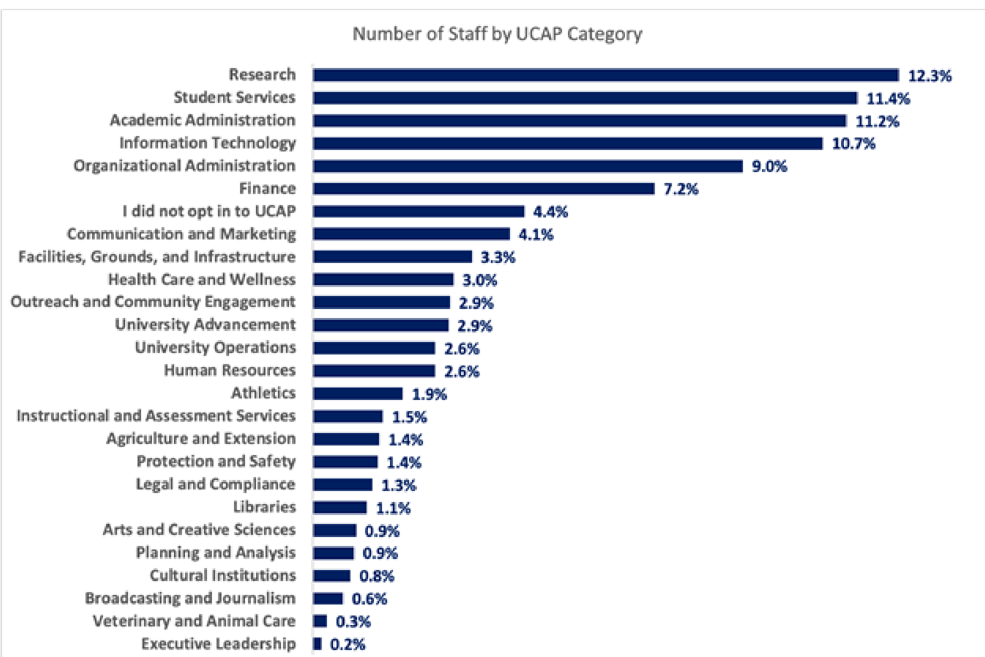

Figure 1. Number of Staff Participants in Survey by UCAP Category.

Faculty and Staff Salaries

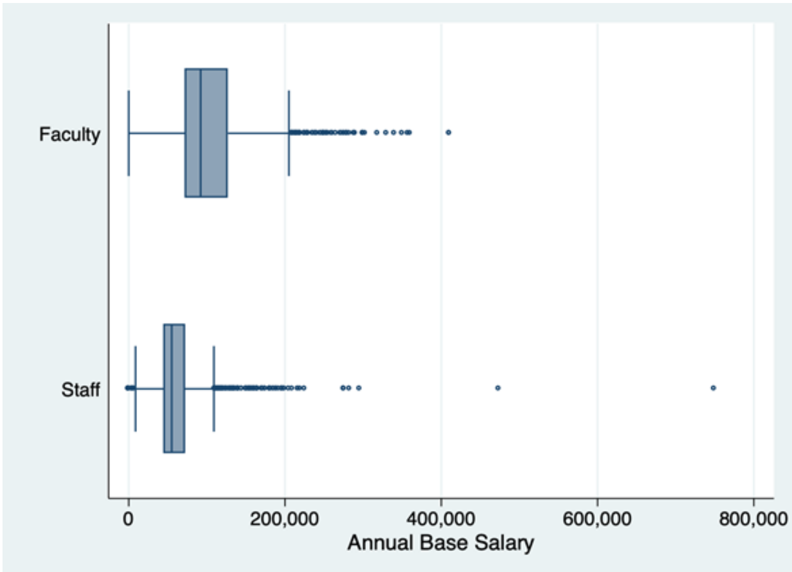

Figure 2. Reported Salary Distribution by Employee Status.

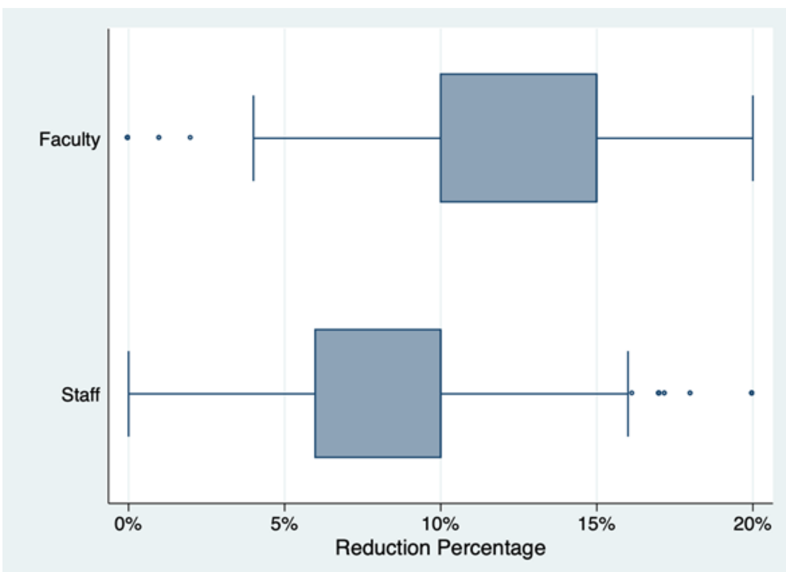

Figure 3. Reported Salary Reduction by Employee Status.

Faculty and Staff Perceptions

Several survey questions were designed to understand UArizona employees' perceptions of the proposed furlough plan and its effect on their UArizona career trajectories.

Concern for Job Loss

We asked employees "How concerned are you that you might lose your current job at UArizona?" Staff were more likely than faculty to report that they were *very* or *extremely concerned* about job loss at the UArizona (see Figure 4): 19% of faculty and 30% of staff reported that they were *very* or *extremely concerned*.

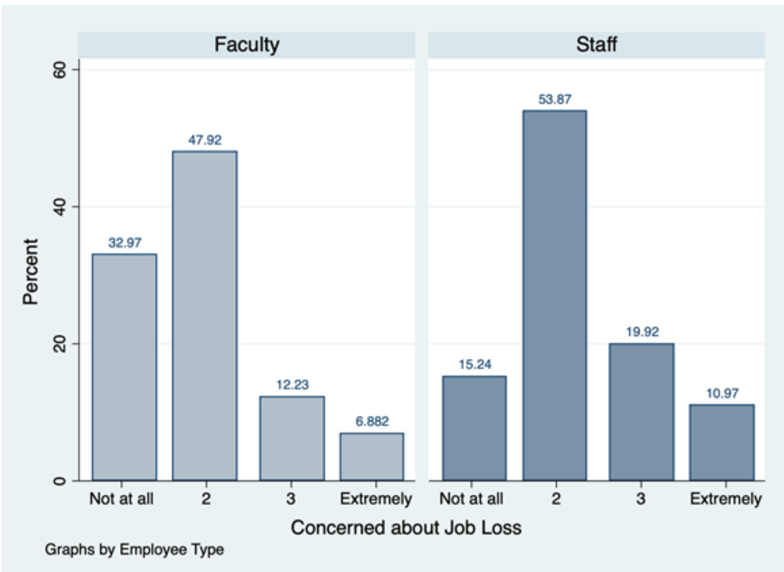

Figure 4. Faculty and Staff Concerns about Job Loss.

Seeking New Employment

Relatedly, GFFAC sought to understand to what degree faculty and staff may seek employment elsewhere. To this end, the survey asked employees “How likely are you to look for alternative employment if UArizona implements a furlough plan?” Many faculty (38%) and staff members (25%) reported that they were *moderately* or *extremely likely* to seek new employment if the UArizona implements a furlough plan (see Figure 5).

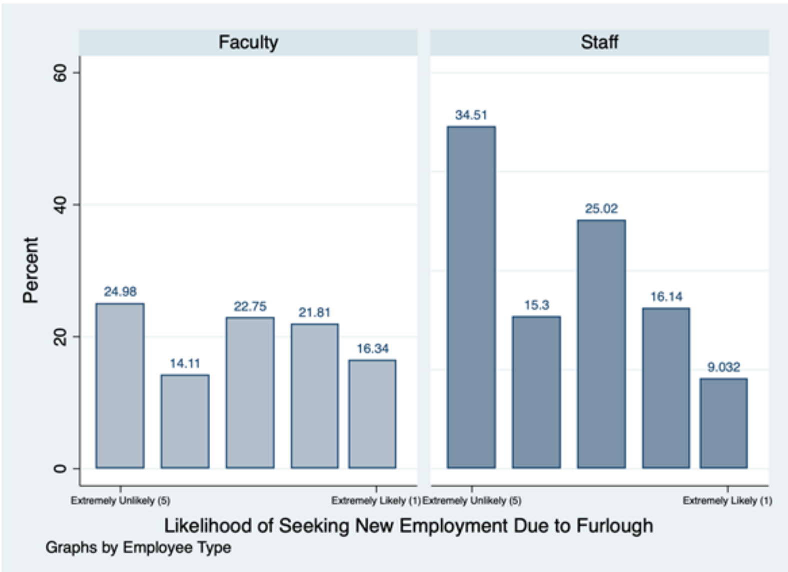

Figure 5. Faculty and Staff Likelihood of Seeking New Employment

Satisfaction with Furlough Plan and Desire for Alternatives

GFFAC also asked two questions about the UArizona's current furlough plan. First, the survey asked "How satisfied are you with the proposed UArizona furlough plan that is set to launch on August 10, 2020?" Figure 6 displays the distribution of faculty and staff responses. A small percentage of faculty (10%) and staff (22%) indicated they were either *extremely* or *somewhat satisfied* with the current furlough. Second, the survey asked "How strongly do you agree that UArizona should find alternatives to the proposed furlough plan for saving money?" The majority of faculty (75%) and staff (57%) agreed that UArizona should find alternatives to the furlough plan that is set to launch on August 10, 2020 (see Figure 7).

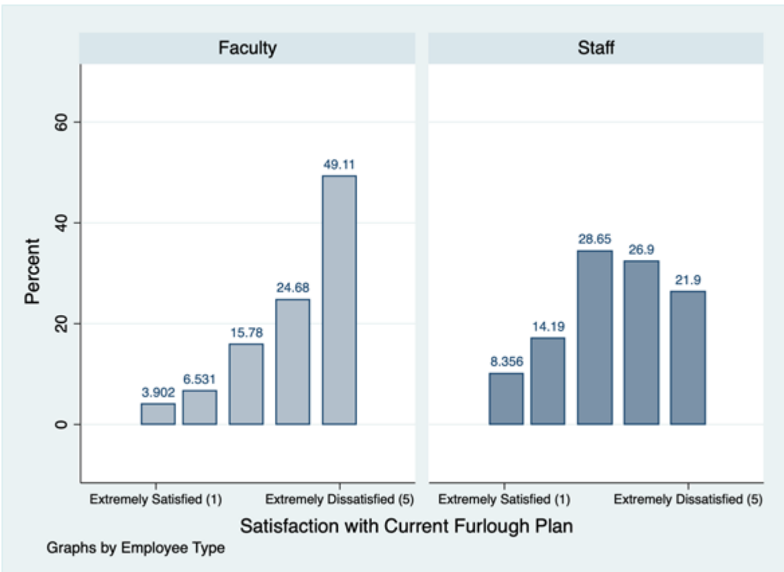

Figure 6. Faculty and Staff Satisfaction with Current Furlough Plan

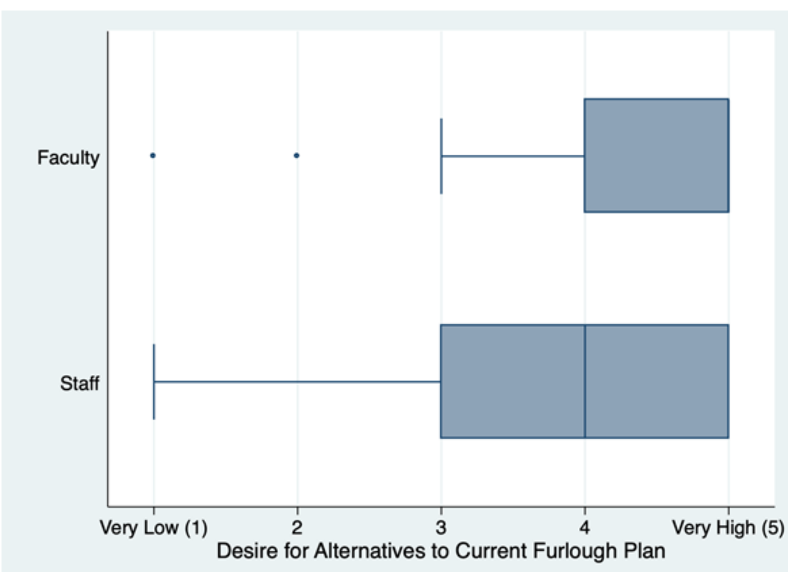

Figure 7. Faculty and Staff Desire for Alternatives to the Current Furlough Plan

Other Survey Results

Responses to other survey questions connected to additional impacts of the furlough plan anticipated to launch on August 10, including open responses to the question "What is the source of your dissatisfaction in the proposed furlough plan?" have not been analyzed at the time of this report.

Financial Situation in COVID-19 Pandemic

Estimated Losses and Savings

The University of Arizona is experiencing large losses from the COVID-19 pandemic. The tables below provide aggregate estimates provided to GFFAC by CFO Rulney. Estimated losses total $281 million and estimated mitigation savings total $201 million as of July 13, 2020.[5] Notably, several of the proposed mitigation strategies relate to employees. Employee salaries, wages, and benefits constitute over 60% of the university's annual budget.[6] The large proportion of expenses from employee salaries and wages has been offered as an explanation for the necessity of a furlough program. The furlough and furlough-based salary plans, the wage freeze, and the hiring pause combine to provide approximately $106 million in loss mitigation in the shared mid-July estimates.

Estimated Losses

Estimates from CFO Rulney - 7/13/20	FY20-21 estimated loss
Tuition and fees (net)	$108 million (includes $25 million in tuition discounting)
Investment and philanthropy	$49 million
Auxiliaries (e.g., parking)	$49 million
Athletics	$23 million
Research cost recovery	$16 million
Departmental sales	$9 million
COVID-19 costs	$27 million
Total losses	**$281 million**

[5] Source: GFFAC meeting with CFO Rulney on July 15, 2020.

[6] See p. 21 of the All Funds Operating Budget available at https://budget.arizona.edu/sites/default/files/All_Funds_2019.pdf.

Estimated Savings

Estimates from CFO Rulney - 7/13/20	FY20-21 estimated savings
Furloughs (updated to 7/29 projection)	$79 million
Wage freeze	$20 million
Hiring pause	$7 million
Strategic plan halt	$58 million
Postpone capital projects	$22 million
CARES Act funding	$15 million
Total savings	**$201 million**

Details on Losses and Savings

GFFAC was provided with additional information about losses and mitigations during six meetings with CFO Rulney between July 15 and July 30, 2020. On the losses side, CFO Rulney indicated that $108 million expected loss in Net Tuition Revenue (NTR) and fees revenue includes the effects of tuition discounting. The loss from tuition discounting was about $25 million in FY 2019, such that only about $83 million of the $108 million expected loss in tuition and fees is directly related to COVID-19. GFFAC was also made aware of several additional avenues of loss mitigation. For example, operational changes due to COVID-19 have caused certain expenses to decline relative to normal times. One source of savings is out-of-state travel. The original FY 2019 estimate for travel expenses was about $28 million. CFO Rulney indicated that savings have been about $2 million per month during the pandemic due to reduced travel. The university has also recognized a smaller gain from lower utility expenses of about $2 million relative to the previous year.[7] Additional savings come from non-salary, employee-related expenses. Decreases in employee salaries are accompanied by declines in employer retirement savings contributions and payroll taxes. These additional employee-related savings are likely 15-20% of the size of the furlough programs.[8] Finally, the Capital Projects, Debt, and Investments

[7] Information from the Vendor Utility Variance Report from Facilities Management that was provided to GFFAC by CFO Rulney.

[8] Retirement plan contributions from the university depend on the retirement plan elections of employees. The employer contribution to the Arizona State Retirement System (ASRS) in 2020 is 12.04% of pre-tax salary and the contribution to the Optional Retirement Plan (ORP) is 7.00% (https://hr.arizona.edu/employees-affiliates/benefits/retirement-plans). The employer tax rates for social security and Medicare combine to 7.65%. The combination of these savings across the workforce is likely between 15% and 20% of the salary reductions from the furlough and furlough-based salary plans.

Working Group of the Financial Sustainability Emergency Response Task Force (FSERT) indicated progress toward restructuring debt that could result in large cash savings of about $60 million.[9]

The furloughs, wage freeze, and hiring pause combine to produce $106 million in savings. Combining loss mitigations from the layoffs, the furlough and furlough-based salary plans, the wage freeze, the hiring pause, and the decreases in retirement plan contributions and social security contributions indicates that employees at the University of Arizona are bearing a large portion of the COVID-19 losses. Reduced employee-related expenses are likely about $15-20 million. As of the end of June, about 280 employees had experienced layoffs and non-renewals. While not all such layoffs are COVID-19 related, GFFAC understands layoffs and non-renewals have grown by a factor of about four since the onset of the pandemic.[10] GFFAC does not have an estimate for the monetary savings from the 280 layoffs, but the overall savings to the University of Arizona based on cuts to employee jobs, salaries, and benefits likely exceeds $130 million.

The loss mitigation from layoffs comes at great cost to these individuals as well as to the university and its community. **GFFAC urges the University of Arizona to protect as many employees as possible from layoffs during the COVID-19 pandemic.**

COVID-19 Responses by ABOR Peers

Most of our ABOR peer institutions have announced loss mitigation responses associated with the COVID-19 pandemic. Information regarding responses of our 15 ABOR peers is provided in Appendix A (with references to underlying sources). As UArizona leadership has acknowledged, the range of losses described by our ABOR peers is consistent with the expected losses at the University of Arizona.[11]

Like the University of Arizona, seven of our 15 ABOR peers have announced wage freezes and/or hiring pauses. Two have publicly announced layoffs. Four of the 15 peer universities have announced pay cuts that apply only to senior leadership, and just three of the 15 universities have announced furlough programs that apply broadly to faculty and staff.

Our ABOR peers have also adopted strategies that have not yet been implemented by the University of Arizona. Notably, 12 of the 15 peer universities have either issued long-term bonds or obtained a line of credit since the COVID-19 pandemic began.

Comparison of Furlough Plans

Figure 8 compares the furlough programs at the University of Arizona and the three ABOR peer institutions that have implemented furloughs. The University of Minnesota plan is the largest in terms of overall savings among our ABOR peer universities. Minnesota's plan is also the most aggressive plan that GFFAC members were able to find among any peer research university in

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[9] Source: July 22 meeting between GFFAC members and the Capital Projects, Debt, and Investments Working Group.

[10] The number of layoffs and non-renewals was provided by members of CAJUA based on discussions with Vice President and Chief Human Resources Officer Helena Rodrigues.

[11] Example: July 1 campus email on Financing the Mission -- Our Operating Cash, from CFO Rulney.

terms of percentage cuts. The University of Minnesota plan has a salary floor of $60,000.[12] The salary reductions range from 0.75% at the $60,000 salary level to 10% at the $300,000 salary level. The University of Minnesota is implementing the furlough over two six-month periods with a re-evaluation of the plan after the first period. The Michigan State University plan has a salary floor of $50,000, and salary reductions range from 1% at the $50,000 salary level to 7% for salaries above $500,000 for a one-year period.[13] The University of Wisconsin - Madison is implementing a six-month furlough ranging from three to six days for 12-month employees (two to five days for 9-month employees).[14] The three-day furloughs apply to salaries below $50,000 and the six-day furloughs apply to salaries above $150,000.

Figure 8 also shows that the University of Arizona's furlough and furlough-based salary programs impose extremely large salary reductions relative to the ABOR peers at nearly every salary level. The only exception to this statement is the 1.4% cut imposed by the University of Wisconsin to salaries below the University of Arizona plan floor of $44,500. At the $50,500 salary level, the 10% cuts in the University of Arizona plan are extraordinarily large relative to cuts of 1.9% at Wisconsin, 1% at Michigan State, and 0% at Minnesota. This substantial disparity persists at various other salary levels. At $81,000, the 15% cuts in the Arizona plan compare to 2.4% at Wisconsin, 1% at Michigan State, and 2.055% at Minnesota. At $203,500, the 20% cuts in the Arizona plan correspond to 2.8% at Wisconsin, 4% at Michigan State, and 6.495% at Minnesota.

[12] https://humanresources.umn.edu/covid-19/furlough

[13] https://msu.edu/together-we-will/_assets/pdfs/FAS-Wage-Reduction-Scale.pdf

[14] https://news.wisc.edu/uw%E2%88%92madison-guidelines-furloughs-work-share-program-reassignments-and-leave-provisions/

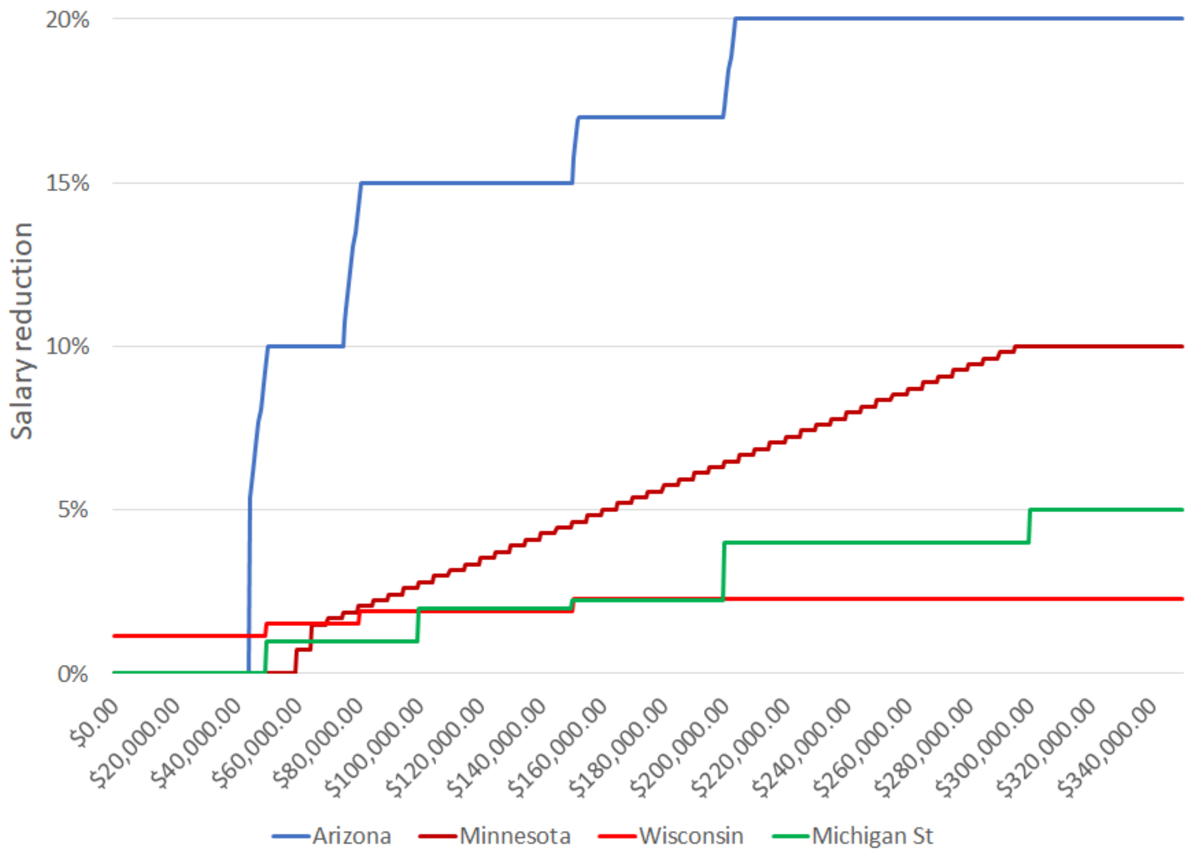

Figure 8. Salary Reduction Percentages for ABOR Peers with Furlough Plans.

Because the University of Minnesota is the ABOR peer with the largest furlough plan, GFFAC submitted Minnesota's plan to CFO Rulney to estimate UArizona's potential savings under that particular plan. Appendix A provides detailed accounts of the total estimated savings, as well as the savings at each salary level both for the University of Arizona anticipated plan and for the University of Minnesota plan. The University of Minnesota's plan applied to the University of Arizona workforce has estimated savings of $18.0 million. In comparison, the University of Arizona's proposed plan has estimated savings of $78.7 million (as of June 30, 2020 estimates). **This means the University of Arizona's furlough plan is 4.4 times larger than the largest plan of any of our ABOR peer institutions**. In addition to the personal costs of the furlough plan for University of Arizona employees, the size of the university's furlough plan places the University of Arizona in a poor strategic position given the national and international market for university employees. More specifically, **many of our best employees are being strategically sought after by our peer institutions due to the University of Arizona's visibility as the outlier among research institutions in terms of furlough and salary cuts**.

Financial Mitigation Recommendations[15]

The Effect of the Current Furlough Plan

GFFAC believes that UArizona's current furlough and furlough-based salary plan will be extremely damaging to the long-term health of the University of Arizona and its stakeholders. Faculty and staff survey responses, as previously described, reveal widespread dissatisfaction with the plan, a strong desire for alternatives, and a substantial cost to the long-term health of the institution through retention of faculty and staff talent. Morale and retention issues are exacerbated because the furlough plan is substantially larger than any other peer university. Indeed, adopting a furlough plan that is more than four times the size of any peer institution creates an enormous personal burden on our faculty and staff. Moreover, as our peer universities have become aware of these pay cuts, they have contacted and recruited many of our most productive researchers and best teachers, and 38% of current faculty have expressed that they are likely to seek new employment (see Figure 5). **The employees of the University of Arizona are its greatest asset, and the value of this asset is greatly and unnecessarily jeopardized by the furlough and furlough-based salary plans.**

Alternative Approaches

GFFAC recognizes that the COVID-19 pandemic is causing large financial losses for the University of Arizona. GFFAC recommends that the University of Arizona use debt options to the extent possible in the loss mitigation efforts. Many organizations have adopted this strategy to mitigate the effects of lost revenue stemming from the pandemic. For example, U.S. corporations issued $1.43 trillion in long-term bonds in the first half of 2020 compared with $1.42 trillion in the entirety of 2019.[16] Similarly, borrowing by universities has spiked. When the University of Michigan raised nearly $1 billion in early June, Bloomberg noted that the $23 billion raised by colleges and universities so far in 2020 was seven times the amount from the corresponding period in 2019.[17] The Eller Plan identifies over $7 billion in additional university bond offerings after Michigan's offering and before the end of July.[18] Using debt does not eliminate losses, but it does provide the university with the flexibility to adopt a set of solutions that are best for the short-, intermediate-, and long-term health of the University of Arizona and its stakeholders.

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[15] Some of the material in this section is borrowed from the Eller Plan (dated July 10, 2020), and permission was obtained from all authors of the Eller Plan.

[16] https://www.sifma.org/resources/research/us-corporate-bond-issuance/

[17] This Bloomberg article is available at: https://www.bloomberg.com/news/articles/2020-06-09/college-bond-sale-spree-grows-with-university-of-michigan-deal.

[18] The Alternative Plan to Address the University of Arizona COVID-19 Budget Shortfall report from the Eller College Faculty is available at https://drive.google.com/file/d/1KapMnRsvM_7twCr8yvDWeblLyT5pQCMu/view?usp=sharing.

GFFAC recommends eliminating or dramatically reducing savings from the furlough and furlough-based salary plans. **GFFAC believes that the combination of cash and a line of credit gives the University of Arizona the short-term financial flexibility** to potentially obtain longer-term debt financing and search for other long-term solutions that have much smaller long-term costs compared with furloughs.

Furloughs also only provide budgetary relief to the colleges and units during the period in which the furlough plans are in effect, whereas debt instruments like lines of credit and bonds can help with budgeting issues across multiple fiscal years. Eliminating the furloughs and using debt to finance COVID-19 losses will provide the University of Arizona with the resources and time to carefully consider strategic and robust longer-term solutions. GFFAC believes that the campus community should choose the long-term solutions that best support the core missions of the University of Arizona: teaching, research, and outreach.

University of Arizona Borrowing Options

The University of Arizona has several options for borrowing with varying degrees of flexibility. Importantly, options exist under current state law that allow the university to borrow to pay operating expenses.

This section discusses four broad approaches:

1) securing a line of credit under existing laws,
2) issuing bonds contingent on working with ABOR and the state legislature to change state laws,
3) issuing bonds under existing laws, and
4) issuing commercial paper under existing laws.

1. Lines of credit

A line of credit would take the form of a contract between the University of Arizona and a financial institution. The financial institution would lend to the university when UArizona needs to borrow. The line of credit would specify the total amount that UArizona could borrow, the borrowing terms, and the length of the contract. Among borrowing options currently allowed under state law, the line of credit is the most flexible in terms of the allowed uses of borrowed funds.

The University of Arizona is authorized to "obtain lines of credit for cash management or liquidity purposes" (Arizona Revised Statutes 15-1682).[19] **Importantly, no restrictions are placed on how the borrowed money is spent under state law, so a line of credit can be used to fund operating expenses.** ABOR's Meeting Book from September 2016 states that "The State Legislature passed, and the Governor signed House Bill 2271 (Laws 2016, Chapter 238) which authorizes ABOR to issue commercial paper as short-term financing for capital projects, and obtain lines of credit for cash management or liquidity purposes." ABOR's discussion in support of the bill

[19] https://www.azleg.gov/ars/15/01682.htm. Lines of credit can be obtained under Arizona state law for two purposes: (i) for cash management or liquidity purposes, and (ii) to issue commercial paper as provided in section 15-1696. Section 15-1696 authorizes ABOR to issue commercial paper and describes that a line of credit can be obtained as a part of a commercial paper program. The use described in this report is for cash management or liquidity purposes, which is separate from and not connected to the commercial paper requirements in the state statutes.

provides "the availability (of lines of credit) provides a contingency should the universities ever need to address unanticipated significant negative financial circumstances."[20]

ABOR Policy Number 3-501.B states that "The board will adopt guidelines related to the use of Lines of Credit for cash management or liquidity purposes." The adopted ABOR guidelines follow.[21]

> **Guidelines for Lines of Credit**
>
> Lines of credit may be obtained and drawn on by the universities for cash management or liquidity purposes in accordance with the following guidelines.
>
> A. Matters related to opening any line of credit shall be submitted for review by the Business and Finance Committee and approval by the board.
>
> B. Requests for opening a line of credit shall include:
>
> 1. Justification and purpose for opening the line of credit.
> 2. Terms and conditions of the line of credit agreement including: interest rates, repayment terms, schedules, and other relevant covenant requirements.
>
> C. Any draws on approved lines of credit shall be reported to the business and finance section of the ABOR office and any use of lines of credit and outstanding balances shall be reported in the financial status updates provided to the Business and Finance Committee.

Obtaining large lines of credit is a recent approach followed by our peer universities. In recent months, and in direct response to the COVID-19 crisis, the Indiana University system ($1 billion line of credit), the University of Michigan system ($1 billion), the State University of New York (SUNY) system ($3 billion), Pennsylvania State University ($250 million), and the University of Alabama system ($250 million), among others, have established large lines of credit to provide liquidity during the COVID-19 crisis.[22]

The financial flexibility provided by a line of credit is accompanied by two primary costs. First, interest payments accrue over time but only on the borrowed portion of the line of credit. Given the credit quality of the University of Arizona, the interest rate would likely be a small spread

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[20] https://public.azregents.edu/Board/2016-09-Final-Board-Book.pdf.

[21] The Guidelines and associated discussion are available on pp. 47-49 of the ABOR Business and Finance Committee meeting notes (https://public.azregents.edu/Shared%20Documents/2016-11-16-Final-Business-Finance-Cmt-Book.pdf). These guidelines were approved at the November 2016 ABOR meeting (https://provost.asu.edu/sites/default/files/page/2539/abor_draft_board_meeting_minutes_november_17-18_2016.pdf).

[22] Information on lines of credit at these universities is available at https://record.umich.edu/articles/u-m-will-establish-new-lines-of-credit-up-to-1-billion/, https://indianaeconomicdigest.com/Content/Most-Recent/Education/Article/IU-board-approves-spending-2-million-for-line-of-credit-of-up-to-1-billion-if-needed-during-coronavirus-pandemic/31/77/99572, https://www.insidehighered.com/news/2020/04/03/alabama-system-open-250m-lines-credit, https://www.fitchratings.com/research/us-public-finance/fitch-rates-state-university-of-new-york-series-2020a-dormitory-revs-a-06-07-2020,

and https://news.psu.edu/story/626640/2020/07/23/administration/open-letter-penn-state-president-eric-barron above the London Interbank Offered Rate (LIBOR). Second, a facility fee on the unused portion of the line of credit compensates the financial institution for maintaining its obligation to lend whenever the borrower needs funds. Based on facility fees obtained by other universities, the facility fee on a $250 million line of credit, for example, may be about $500,000 to $750,000 per year if the full $250 million is left unborrowed.[23]

The length of a line of credit contract is negotiated with the financial institution, and a wide range of contract lengths are seen in practice. As examples that illustrate different terms, the University of Minnesota has negotiated for a 364-day line of credit, whereas the University of Michigan has obtained lines of credit through December 31, 2030.[24] A 364-day (or similar) contract length would likely be preferable in the scenario in which bond issuance laws are changed in the next legislative session (as discussed further in the following section), whereas a longer line of credit contract length may be preferred if additional long-term financing from bonds is unavailable.

A line of credit carries an additional advantage in the current situation. The losses from COVID-19 are highly uncertain. Estimates of student enrollment and the accompanying revenues from tuition, fees, room and board, and other auxiliaries are quite difficult to estimate given that the usual models and metrics for projecting enrollment are likely less accurate and reliable in the midst of a pandemic. A line of credit allows the University of Arizona to borrow only the amount that it needs and only at the times that it needs cash. **Thus, a line of credit provides a flexible tool for cash management or liquidity purposes during the COVID-19 pandemic.**

Obtaining a line of credit is unlikely to significantly affect the University of Arizona's ability to issue long-term bonds. As with any method of borrowing, it is possible that obtaining a line of credit and borrowing heavily against it could affect the university's credit rating. This risk seems relatively low given that the necessary scale of line of credit drawdowns is likely small compared with the overall debt capacity of the University of Arizona. The Eller Plan also shows that, as of early July 2020, the Bloomberg yield curves for Higher Education Municipal bonds indicated differences in yields of less than 0.10% (10 basis points) per year between universities with Aa2 ratings from Moody's (our current rating) and Aa3 ratings (the rating that we would likely move to in the unlikely event of a credit rating revision), such that the cost of a credit rating downgrade would be relatively small with current market conditions.[25]

2. Bonds with a change in Arizona state law

The University of Arizona (including the Capital Projects, Debt, and Investments FSERT Working Group), along with Arizona State University and Northern Arizona University, has had preliminary

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[23] The $500,000 to $750,000 estimated facility fee total is based on facility fee rates of 0.20% to 0.30%. After discussions with U.S. Bank, Wells Fargo Bank, and JPMorgan Bank, the University of Minnesota estimated an annual commitment fee of approximately $225,000 on a $150 million line of credit, which is a rate of 0.15% (https://regents.umn.edu/sites/regents.umn.edu/files/2020-06/docket-fin-june2020v2.pdf). Indiana University is reportedly paying $2 million for a $1 billion line of credit for a rate of 0.20% (https://www.hoosiertimes.com/herald_times_online/news/covid19/iu-board-approves-spending-2m-for-line-of-credit/article_f445c454-7b63-11ea-939e-172516af6ca5.html).

[24] See https://regents.umn.edu/sites/regents.umn.edu/files/2020-06/docket-fin-june2020v2.pdf and https://record.umich.edu/articles/u-m-will-establish-new-lines-of-credit-up-to-1-billion/.

[25] Source: Bloomberg terminal.

discussions with ABOR and members of the State of Arizona government to temporarily change laws surrounding bond issuance by universities. GFFAC strongly supports these efforts.

If the laws are changed to allow the University of Arizona to issue long-term bonds with no restrictions on spending, GFFAC recommends that the university issue long-term bonds to finance COVID-19 losses and lock in currently low interest rates. Borrowing rates for organizations similar to ours are now near historic lows. Our peer universities' recent bond offerings have included 30-year bonds with interest rates between 2.60% to 2.80%. **The combination of low risk-free rates and reasonable credit spreads results in extremely attractive long-term borrowing rates.** As a specific example, a recent $590 million bond offering by the University of Missouri was composed of taxable revenue bonds. This offering included a weighted average maturity of 11.4 years with a weighted average yield of 1.95%. The University of Utah's recent $105 million bond issue included some tax-exempt bonds and, on average, achieved a 1.39% yield with a 13.0-year maturity.[26] Such low borrowing costs represent an opportunity to secure necessary financing at a minimal cost.

If we view a bond offering as a method for spreading the shorter-term COVID-19 shock across multiple years, a structure similar to the University of Utah's recent offering could be attractive. They issued bonds that mature each year between 2021 and 2040. The principal is back-loaded (e.g., the deal includes $1.755 million of principal for 2021 bonds and $8.650 million for 2040 bonds). Early interest payments will be highest because the principal balance remains large, and principal payments grow as interest payments shrink over time.

Appendix B details a bond offering structure that produces similar combined interest and principal payments each year over a 20-year term. Using information from market taxable interest rates for higher education and an Aa2 Moody's credit rating, we project that the University of Arizona can secure $200 million in financing today with annual repayments of $12.25-$12.50 million per year over the next 20 years. The University of Arizona can determine the best ways to improve operational efficiency to cover this annual cost, but the overall impact of a $12.5 million debt payment within the University of Arizona's $2.2 billion annual budget is much more manageable than trying to absorb a $200 million budget cut in a single year.

The specific payoff structure outlined above is provided to illustrate how the debt offering can help smooth out the impact of the shock. Given today's interest rates, including an even longer payoff term (such as 30 years, or even the 40-year term used this month by the University of California System) seems attractive. Regardless of the exact structure, smoothing the shock gives us the ability to maintain stability and avoid sharp cuts that can have a long-term negative impact.

The $200 million bond issue example in Appendix B also would not cause the University of Arizona to approach debt capacity limits. Based on the [Annual Assessment of Debt Capacity](), the university's annual debt service is approximately $107.3 million which is about 5.0% of total expenses.[27] Adding an additional $12.3 million per year would result in $119.6 million of annual

[26] Source: Bloomberg terminal.

[27] https://public.azregents.edu/Finance%20Capital%20and%20Resources/Item%202C%20UA%202021-2023%20CIP.pdf.

debt service, such that the resulting ratio of 5.6% of expenses is still well below the ABOR policy and State Statute maximum limit of 8.0%.

Issuing bonds is unlikely to cause a material change to the University of Arizona's Aa2 Moody's credit rating. The Eller Plan analyzed 43 bond offerings by universities in May and June 2020 totaling $15.8 billion. Only two of these 43 bond offerings were accompanied by a credit rating downgrade.[28] As previously mentioned, credit spreads are also similar across the Aa2 and Aa3 credit ratings. Overall, the risk and cost of a credit rating downgrade appear to be minimal given bond market conditions and other universities' recent experiences.

3. Bonds under current state law

The University of Arizona is allowed under current state law "to acquire any one project, or more than one, or any combination thereof" (Arizona Revised Statutes 15-1683).[29] The definitions of "acquire" and "project" (Arizona Revised Statutes 15-1681) are broader than they may initially appear.[30] In addition to constructing or purchasing a building, many spending items are included in the definitions in the state statutes.

A bond issue can be used to fund large projects like building a new building, but it can also be used to fund a large set of relatively small projects.[31] The University of Arizona spends some amount of operating cash each year on activities that qualify as "acquiring a project" under state law. Examples include upgrading air filtration in existing buildings, adding technology to classrooms, and buying office furniture. Funding these activities with proceeds from a bond would free up operating cash to pay for operating activities.

The University of Arizona is planning a bond offering in connection with the Grand Challenges Research Building and the Applied Research Building. Any additional expenses, remodels, furnishings, or equipping of buildings that the university can identify could be added to the issue amount of this bond offering with relatively little incremental cost.

4. Commercial paper under current state law

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[28] Source: https://www.moodys.com.

[29] https://www.azleg.gov/ars/15/01683.htm.

[30] https://www.azleg.gov/ars/15/01681.htm. "'Acquire' includes to purchase, lease, lease-purchase, erect, build, construct, reconstruct, raze, remodel, repair, replace, alter, extend, expand, better, equip, furnish, develop, improve and embellish a project, and the acquisition, preparation and development of a site or sites therefor." "'Project' means and includes buildings, structures, areas and facilities which, as determined by the board, are required by or necessary for the use or benefit of each of such institutions, including, without limiting the generality of the foregoing, student, faculty or staff housing facilities, residence halls, dormitories and apartments; student union and recreational buildings and stadiums; other facilities for student, faculty or staff services; any facility or building leased to the United States of America; parking garages and areas; offices, classrooms, laboratories, dining halls and food service facilities, libraries, auditoriums, or parts thereof, or additions or extensions thereto; heating, lighting and other utility service facilities in connection therewith, or parts thereof, or additions or extensions thereto; whether heretofore acquired and now or hereafter used for any or all of the purposes aforesaid, or as may be hereafter acquired under this article, with all equipment and appurtenant facilities; or any one, or more than one, or all of the foregoing, or any combination thereof, for any institution, including sites therefor."

[31] In GFFAC's meeting with the Capital Projects, Debt, and Investment FSERT Work Group, the university's bond consultant indicated that universities frequently adopt this approach and roll many small projects into a bond offering.

The University of Arizona can issue commercial paper "to provide short-term financing for any capital project or costs and expenses related to a capital project" (Arizona Revised Statutes 15-1696).[32] Commercial paper is somewhat more flexible than bonds by including "any costs and expenses related to a capital project." The University of Arizona would need to set up a commercial paper program to issue commercial paper, which would involve getting a short-term credit rating from two rating agencies and obtaining a back-up line of credit.

Given the relative similarity between the short-term commercial paper option and the line of credit option in terms of providing short-term financing, together with the additional flexibility from a line of credit in the current situation, the line of credit option seems preferable to commercial paper options at this time.

Long-Term Solutions

GFFAC met with several FSERT Working Groups. These Working Groups have identified and developed many potential mitigation tools. Some examples include outsourcing auxiliaries such as parking or the bookstore, selling a building with a lease-back agreement, and improvements in campus-wide operational efficiencies. While considering various projects and solutions, the Working Groups expressed a preference for solutions that produced larger short-term cash savings.

GFFAC believes that the combination of cash reserves and a line of credit can give the University of Arizona the short-term financial flexibility to choose the best long-term solutions, regardless of their effect on short-term cash balances. GFFAC is impressed by many of the potential solutions that have been developed by the FSERT Working Groups. GFFAC further believes that choosing among the best long-term solutions offered by the Working Groups can provide the University of Arizona with the long-term savings to offset the COVID-19 losses. In addition to the FSERT initiatives, several colleges and units are adopting local strategies to offset losses. In choosing among alternatives, GFFAC believes that the campus community should choose projects to maximize the short-, intermediate-, and long-term health of the University of Arizona and support its core missions of teaching, research, and outreach.

In line with our beliefs and those of our constituents, GFFAC prefers potential solutions that favor protecting core UArizona missions. For example, many universities, including Arizona State University and Northern Arizona University, have outsourced auxiliaries.[33] Outsourcing auxiliaries, which has been discussed within FSERT, may allow the University of Arizona to streamline its operations and concentrate on its core missions. While auxiliaries generate revenue for the university in normal times, the COVID-19 pandemic also suggests a significant downside risk from these auxiliaries. According to the July 12, 2020 Estimated Impacts Resulting from COVID-19 Crisis figures provided to GFFAC by CFO Rulney, auxiliaries were estimated to

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[32] https://www.azleg.gov/ars/15/01696.htm.

[33] See, for example, https://spaces4learning.com/articles/2015/10/01/outsourcing-auxiliary-departments.aspx. For information purposes, the largest non-athletics auxiliaries by estimated fiscal year 2019 revenue (https://budget.arizona.edu/sites/default/files/All_Funds_2019.pdf) are Facilities Management ($55 million), Residence Life ($53 million), Student Union ($35 million), Bookstore ($28 million), Parking ($19 million), Student Health ($9 million), and Campus Recreation ($2 million).

contribute $48,900,000 to the University of Arizona's losses. These losses illustrate that the outcomes from auxiliaries are highly correlated with other university outcomes including total enrollment and events that prevent physical presence on campus (like the COVID-19 pandemic). Outsourcing auxiliaries can provide the University of Arizona with cash at the time of the sale to help offset the COVID-19 losses and can prevent similar losses in the long run if other adverse events occur.

Recommendations

Specific to Shared Governance Decisions

From the onset of financial exigency in March of 2020, faculty and other employee stakeholders in shared governance (including staff and graduate students) were provided with a generalized big picture of problems, solutions, and related decisions, directly impacting them. While this practice may enable prompt action during a financial crisis, robust shared governance intentionally seeks to increase stakeholder input, build trust, improve communication, and address inequities before final decisions have been made. A broken shared governance process forces employees to call on shared governance representatives to **dispute** leadership decisions rather than act as **advocates** for decisions made cooperatively. When nurtured and exercised productively, shared governance is a valuable institutional asset that can be readily leveraged effectively at all times, including in times of crisis.

At UArizona, specific instances in which shared governance should have been more strongly leveraged in accordance with ARS 15-1601B include:

> 1)The Strategic Planning and Budgetary Advisory Committee (SPBAC) should have been consulted prior to budget allocations were issued to colleges due to the reduction of Net Tuition Revenue caused by tuition discounts. The implications of the resulting budgetary effects should have also been brought to SPBAC and Faculty Senate prior to the announcement to colleges.
>
> 2) The proposed furlough plan announced on April,17 2020 should have been preceded by an engaged discussion with time for feedback from SPBAC, Faculty Senate, Appointed Professionals Advisory Council, Classified Staff Council, and Graduate and Professional Student Council.
>
> 3) While not bearing upon the charge of GFFAC, the re-entry plan should have likely been developed by the Incident Command Structure Team with consultation in and with Faculty Senate, resulting in a post-hoc Senate resolution on re-entry criteria.

While shared governance does not extend to decision making, its principles stipulate that participatory action leading to decisions affecting stakeholders must take place in consultation with existing shared governance bodies (not individual members of these bodies). Consulting with particular faculty, students, or staff who have subject matter expertise may be of value, but does not constitute shared governance practice.

According to the American Association of University Professors (AAUP) report on Financial Exigency, Academic Governance, and Related Matters, "For the faculty to have a meaningful role in budgetary decisions it must have 'access to all information that it requires to perform its tasks effectively,' and the 'opportunity to confer periodically with representatives of the administration and governing board.' Without the former, the faculty's voice will have no credibility; without the latter its voice will not be heard."[34] Executive decisions are leading people who have worked at the University of Arizona for years to question our institutional values, our commitment to students, and our worth as university employees. Faculty shared governance has called for a "reset" to the proposed furlough program because the University of Arizona currently has much more to lose with regards to reputation, commitment to our mission, and human capital, than it does to gain from one-time cash savings.

The AAUP report on Financial Exigency Academic Governance, and Related Matters frames the following steps to improve and strengthen engaged decision making for universities facing financial exigency. GFFAC hence proposes the following specific expectations for our UArizona leaders:

1. The University of Arizona Executive Leadership Team should adopt and distribute widely a formal statement of the respective roles and responsibilities of the governing board, administration, and faculty in decisions about the institution's budget. This will prevent further need for ad hoc responses (e.g., GFFAC).
2. Faculty who serve on budget committees (e.g., SPBAC) should have "access to all the information" they require to carry out their tasks effectively. Faculty who do not serve on these committees need to be kept informed of the substance of budget decisions. Budget decisions, especially those addressing a financial crisis, should foster no suspicion that they are being made by members of a select group.
3. The University of Arizona Executive Leadership Team should prepare a roster of faculty members who are experts in various facets of budgeting, finance, and related higher education policies. The roster could serve as a resource not only for the administration but also for other faculty members or college/university committees who want to learn about budgeting and institutional finances but do not know who can assist them. Such a roster would not substitute for the role of shared governance in providing guidance and input with university-wide decisions, but could be leveraged for additional information and expertise in partnership with shared governance.
4. The University of Arizona Executive Leadership Team should develop ways to encourage faculty interest in serving on budget committees and reward such service. For example, giving opportunities through workshops and retreats will allow faculty to keep abreast of new developments in budgeting, financing, auditing, and accounting.
5. The University of Arizona Executive Leadership Team should prepare regular reports on the effectiveness of their mechanisms for reaching budgetary decisions with the goal of improving them.

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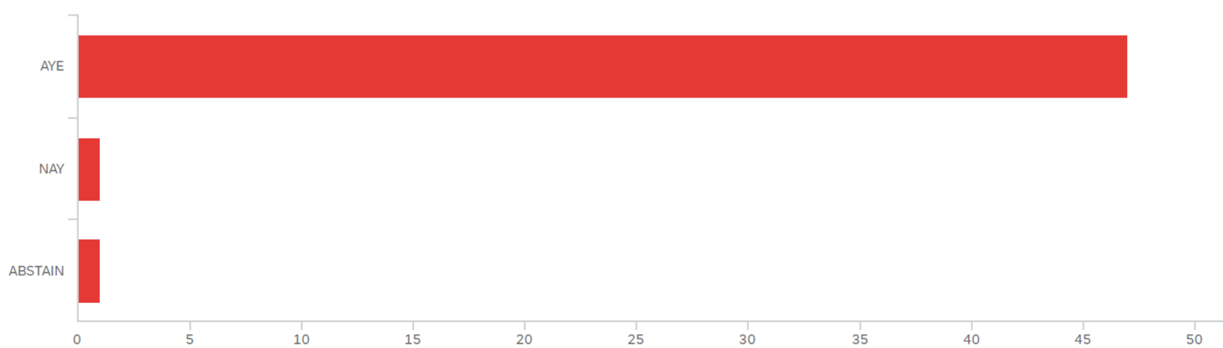
[34] AAUP report on Financial Exigency, Academic Governance, and Related Matters, p. 1, https://www.aaup.org/report/financial-exigency-academic-governance-and-related-matters

GFFAC proposes that these expectations for University leaders be accompanied by set of corresponding expectations for faculty and staff elected into shared governance positions, specifically including:

1. **Revision of the Memorandum of Understanding** between entities of shared governance, including university administrators, to encourage a healthy, functioning, and productive campus community. Specifically, revisions will focus on the critical need for consultation, checks and balances, and open dialogue as a function of respect for members of shared governance. This is an ongoing effort that will require the President's approval and review by the Office of the General Council.
2. **Re-Engagement of the Shared Governance Review Committee** to assess, evaluate, and report on the state of shared governance at the University of Arizona, with an expectation for specific recommendations towards improvement.
3. **Participation and Engagement of Elected Shared Governance Officials** in benchmark decisions. The University of Arizona budget and finance team should include multiple stakeholders from shared governance (faculty, staff, graduate students) to review, evaluate, and advise on future changes to the furlough and other mitigation strategies from here on out, particularly at critical time points (October 2020, March 2021). The UArizona Faculty Senate voted in favor of this motion on August, 4, 2020:

"The University of Arizona budget and finance team should include multiple stakeholders from shared governance (faculty, staff, graduate students) to review, evaluate, and advise on future changes to the furlough and other mitigation strategies from here on out, particularly at critical time points (October 2020, March 2021)."

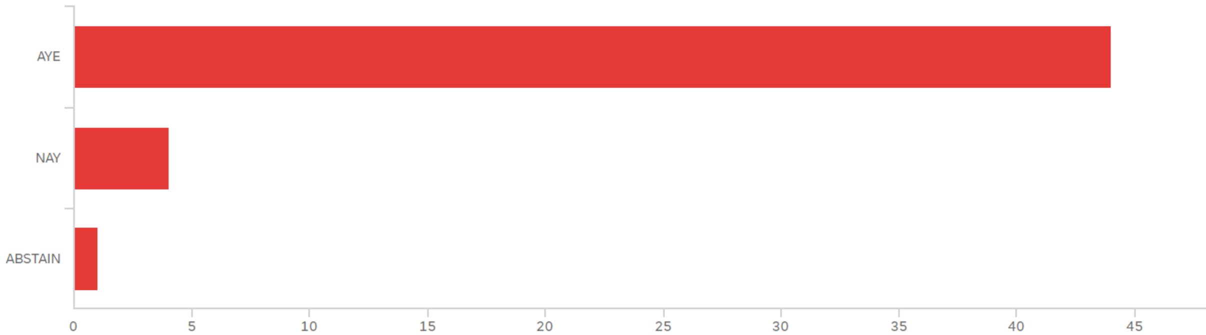


Specific to Finance Decisions

GFFAC recommends the following actions in response to the COVID-19 pandemic losses:

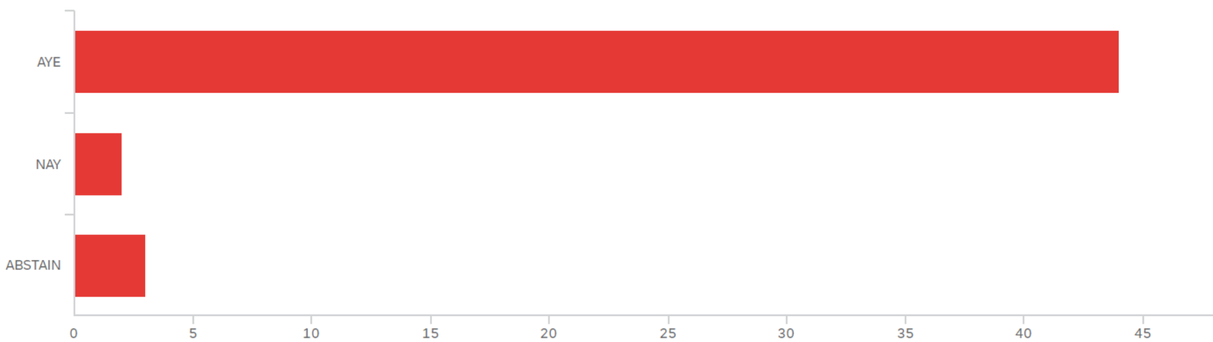
- Eliminate or dramatically reduce the size of the furlough and furlough-based salary plans. The UArizona Faculty Senate voted in favor of this motion on August 4, 2020:

"The University of Arizona should modify or eliminate its current furlough plan in alignment with our peer institutions."



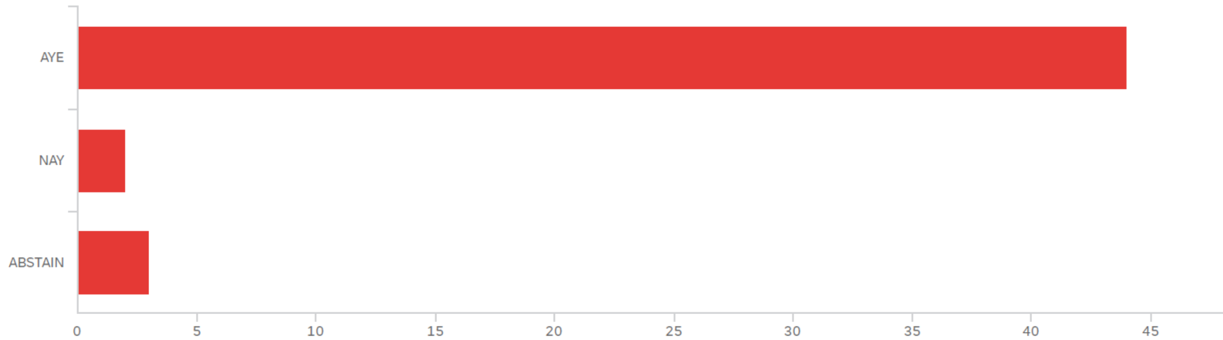
- Alter budget allocations to colleges and units if necessary to prevent layoffs in colleges and units.
- Obtain a line of credit for cash management or liquidity purposes. Use cash reserves and cash borrowed against the line of credit for short-term operations during the COVID-19 pandemic. The UArizona Faculty Senate voted in favor of this motion on August 4, 2020:

"The University of Arizona should commit to short-term borrowing options, such as a line of credit."



- Continue to pursue a change in Arizona state law pertaining to bond issuance. Use long-term bonds to the extent possible to finance COVID-19 losses. The UArizona Faculty Senate voted in favor of this motion on August 4, 2020:

"The University of Arizona should commit to long-term borrowing options, such as issuing a bond."



- Choose from among the available solutions produced by the FSERT Working Groups based on their short-, intermediate-, and long-term effects on the health and strategic positioning of the University of Arizona at its stakeholders. Concentrate on solutions that support the core missions of the University of Arizona: teaching, research, and outreach.

Specific to Furlough Decisions

GFFAC recommends the following actions related to Furlough decisions:

- Inform the UArizona community, including faculty, staff, and students, about the planned re-evaluations of the Furlough plan in October 2020 and March 2021. Maintain regular communications about the financial realities and priorities that will affect furlough re-evaluation decisions.
- IF, we use a furlough plan alongside borrowing (see also Appendix C)
    - Publicly and transparently re-evaluate the Furlough and Furlough-Based Salary Program (F/FBSP) in October 2020 and March 2021.
    - Announce the indicators used in these evaluations
    - Share current, granular data for each indicator
    - Engage Shared Governance bodies in every stage of these evaluations in accordance with the Memorandum of Understanding
    - Should we have realized enough revenue to lower the savings target, we suggest the following prioritized allocations
        1. Proportional reduction of F/FBSP rates
        2. IF COVID-19 infections remain high, use increased revenue to offset cost of offering a greater number of courses fully online in Spring 2021

Appendices

Appendix A. ABOR Peer Loss Mitigation Responses to COVID-19

Institution	Furlough / Pay Cut	Layoffs / Non-Renewals	Bonds / Line of Credit	Salary Freeze / Hiring Pause
University of Arizona	5.38%-20%	289		x
University of California - Davis	10% Chancellor[35]		$2.6 billion bond (UC system)[36]	x
University of California - Los Angeles	10% Chancellor[37]		$2.6 billion bond (UC system)[38]	x
University of Florida				x[39]
University of Illinois			$90 million bond[40]	x[41]
University of Iowa	50% President[42]	15[43]	$40 million bond[44]	x[45]
University of Maryland				
Michigan State University	Non-union: 0.5%-7%[46]			

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[35] https://ucnet.universityofcalifornia.edu/news/2020/05/president-napolitano-announces-systemwide-pay-freeze-for-policy-covered-employees.html

[36] https://www.moodys.com/research/Moodys-assigns-Aa2-to-University-of-Californias-general-revenue-bonds--PR_906532224

[37] https://ucnet.universityofcalifornia.edu/news/2020/05/president-napolitano-announces-systemwide-pay-freeze-for-policy-covered-employees.html

[38] https://www.moodys.com/research/Moodys-assigns-Aa2-to-University-of-Californias-general-revenue-bonds--PR_906532224

[39] https://hr.ufl.edu/manager-resources/hiring-pause/

[40] https://www.moodys.com/research/Moodys-revises-University-of-Illinois-outlook-to-negative-assigns-A1--PR_906489354

[41] https://www.news-gazette.com/coronavirus/coronavirus-response-ui-looking-at-strategic-reductions-as-it-evaluates-finances/article_a81c1c72-4f12-599e-b93c-5b57ab3af7e2.html

[42] https://now.uiowa.edu/2020/07/university-iowa-announces-budget-reductions-begin-fiscal-year-2021

[43] https://dailyiowan.com/2020/06/20/15-faculty-members-laid-off-within-college-of-liberal-arts-and-sciences-amid-budget-cuts/

[44] https://www.moodys.com/research/Moodys-assigns-Aa1-to-State-University-of-Iowas-Series-2020--PR_906476723 and https://www.moodys.com/research/Moodys-assigns-Aa1-to-State-University-of-Iowas-proposed-series--PR_906591931

[45] https://now.uiowa.edu/2020/07/university-iowa-announces-budget-reductions-begin-fiscal-year-2021

[46] https://msu.edu/together-we-will/_assets/pdfs/FAS-Wage-Reduction-Scale.pdf

Institution	Furlough / Pay Cut	Layoffs / Non-Renewals	Bonds / Line of Credit	Salary Freeze / Hiring Pause
University of Minnesota	0.75%-10%[47]		$150 million line of credit[48]	
University of North Carolina - Chapel Hill			$34 million bond[49]	
Ohio State University			$186 million bond[50]	x[51]
Penn State University	10% President[52]		$250 million line of credit[53]	
Texas A&M University			$167 million bond[54]	
University of Texas - Austin			$402 million bond[55]	x[56]
University of Washington			$220 million bond[57]	
University of Wisconsin - Madison	2.3%-4.6% six months; 10%-15%[58]Leaders[59]	40[60]	Seeking $1 billion line of credit[61]	

[47] https://humanresources.umn.edu/covid-19/furlough

[48] https://regents.umn.edu/sites/regents.umn.edu/files/2020-06/docket-fin-june2020v2.pdf

[49] https://www.munios.com/munios-notice.aspx?e=BTXV7

[50] https://www.moodys.com/research/Moodys-assigns-Aa1-to-Ohio-State-Universitys-OH-proposed-Series--PR_906482205

[51] https://hr.osu.edu/coronavirus/

[52] https://news.psu.edu/story/617057/2020/04/23/administration/message-penn-state-president-eric-j-barron

[53] https://news.psu.edu/story/626640/2020/07/23/administration/open-letter-penn-state-president-eric-barron

[54] https://www.moodys.com/research/Moodys-assigns-Aaa-to-Texas-AM-University-Systems-RFS-Taxable--PR_906554267

[55] https://www.moodys.com/research/Moodys-assigns-Aaa-to-The-University-of-Texas-Systems-TX--PR_906456218

[56] https://financials.utexas.edu/coronavirus/hiring-criteria-guidance

[57] https://www.moodys.com/research/Moodys-assigns-Aaa-to-University-of-Washingtons-WA-Series-2020--PR_906318376

[58] https://hr.wisc.edu/covid19/furlough/

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Comparison of Savings from Furlough Plans

The University of Arizona Plan

UArizona Furlough/Flex Program Projected Summary				
Salary Range	**% of Pay Reduction**	**Positions**	**Positions by %**	**Projected Amount**
$0 -$44,499	0.000%	3371 (2)	30.89%	$0
$44,500 -$44,999	5.385%	56	0.51%	$99,733
$45,000 -$45,499	5.769%	166	1.52%	$403,662
$45,500 -$45,999	6.154%	33	0.30%	$81,545
$46,000 -$46,499	6.538%	70	0.64%	$194,098
$46,500 -$46,999	6.923%	50	0.46%	$156,193
$47,000 -$47,499	7.308%	187	1.71%	$593,773
$47,500 -$47,999	7.692%	64	0.59%	$210,256
$48,000 -$48,499	8.077%	100	0.92%	$349,622
$48,500 -$48,999	8.462%	94	0.86%	$337,647
$49,000 -$49,499	8.846%	49	0.45%	$195,991
$49,500 -$49,999	9.231%	49	0.45%	$175,374
$50,000 -$50,499	9.615%	201	1.84%	$797,878
$50,500 -$75,000	10.000%	3,034	27.80%	$16,026,340
$75,001 -$75,499	10.385%	19	0.17%	$134,241
$75,500 -$75,999	10.769%	23	0.21%	$156,041
$76,000 -$76,499	11.154%	35	0.32%	$274,794
$76,500 -$76,999	11.538%	23	0.21%	$169,807
$77,000 -$77,499	11.923%	50	0.46%	$419,763
$77,500 -$77,999	12.308%	18	0.16%	$163,423
$78,000 -$78,499	12.692%	42	0.38%	$395,944
$78,500 -$78,999	13.077%	16	0.15%	$144,927
$79,000 -$79,499	13.462%	28	0.26%	$250,585
$79,500 -$79,999	13.846%	24	0.22%	$215,968

UArizona Furlough/Flex Program Projected Summary				
Salary Range	**% of Pay Reduction**	**Positions**	**Positions by %**	**Projected Amount**
$80,000 -$80,499	14.231%	91	0.83%	$852,737
$80,500 -$80,999	14.615%	18	0.16%	$193,744
$81,000 -$150,000	15.000%	2,158	19.77%	$29,040,438
$150,001 -$150,499	15.385%	4	0.04%	$75,798
$150,500 -$150,999	15.769%	3	0.03%	$71,313
$151,000 -$151,499	16.154%	7	0.06%	$151,266
$151,500 -$151,999	16.538%	1	0.01%	$15,063
$152,000 -$152,499	16.923%	5	0.05%	$73,205
$152,500 -$199,999	17.019%	385	3.53%	$8,986,683
$200,000 -$200,499	17.308%	10	0.09%	$228,636
$200,500 -$200,999	17.692%	2	0.02%	$67,094
$201,000 -$201,499	18.077%	1	0.01%	$36,348
$201,500 -$201,999	18.462%	2	0.02%	$49,946
$202,000 -$202,499	18.846%	4	0.04%	$119,162
$202,500 -$202,999	19.231%	0	0.00%	$0
$203,000 -$203,499	19.615%	2	0.02%	$41,864
$203,500 +	20.000%	418	3.83%	$16,740,155
	Total	**10,913**	**100%**	**$78,691,057**

The University of Minnesota Plan Applied to the University of Arizona Workforce

UArizona Furlough/Flex Program under Minnesota Plan (Comparison purposes)				
UMN "Earnings Tier"(1)	**% of Pay Reduction**	**Positions(2)**	**Positions by %**	**Projected Amount**
$0–$59,999.99	0.00%	5,677	31.68%	$0
$60,000–$64,999.99	0.750%	665	8.91%	$249,975
$65,000–$69,999.99	1.500%	531	7.11%	$457,849
$70,000–$74,999.99	1.685%	455	6.09%	$483,278
$75,000–$79,999.99	1.870%	377	5.05%	$482,653

UArizona Furlough/Flex Program under Minnesota Plan (Comparison purposes)				
UMN "Earnings Tier"[(1)]	% of Pay Reduction	Positions[(2)]	Positions by %	Projected Amount
$80,000–$84,999.99	2.055%	336	4.50%	$469,740
$85,000–$89,999.99	2.240%	297	3.98%	$494,071
$90,000–$94,999.99	2.425%	287	3.84%	$572,498
$95,000–$99,999.99	2.610%	227	3.04%	$498,732
$100,000–$104,999.99	2.795%	214	2.87%	$519,883
$105,000–$109,999.99	2.980%	128	1.71%	$357,883
$110,000–$114,999.99	3.165%	153	2.05%	$459,811
$115,000–$119,999.99	3.350%	115	1.54%	$410,754
$120,000–$124,999.99	3.535%	102	1.37%	$364,655
$125,000–$129,999.99	3.720%	96	1.29%	$385,390
$130,000–$134,999.99	3.905%	85	1.14%	$400,890
$135,000–$139,999.99	4.090%	82	1.10%	$362,953
$140,000–$144,999.99	4.275%	59	0.79%	$296,349
$145,000–$149,999.99	4.460%	40	0.54%	$228,675
$150,000–$154,999.99	4.645%	60	0.80%	$343,579
$155,000–$159,999.99	4.830%	42	0.56%	$270,644
$160,000–$164,999.99	5.015%	54	0.72%	$330,532
$165,000–$169,999.99	5.200%	42	0.56%	$310,957
$170,000–$174,999.99	5.385%	53	0.71%	$408,306
$175,000–$179,999.99	5.570%	41	0.55%	$330,548
$180,000–$184,999.99	5.755%	38	0.51%	$291,351
$185,000–$189,999.99	5.940%	31	0.42%	$275,845
$190,000–$194,999.99	6.125%	32	0.43%	$306,561
$195,000–$199,999.99	6.310%	25	0.33%	$242,973
$200,000–$204,999.99	6.495%	28	0.38%	$252,374
$205,000–$209,999.99	6.680%	29	0.39%	$191,220
$210,000–$214,999.99	6.865%	16	0.21%	$166,596
$215,000–$219,999.99	7.050%	28	0.38%	$332,222
$220,000–$224,999.99	7.235%	17	0.23%	$178,120
$225,000–$229,999.99	7.420%	18	0.24%	$215,159
$230,000–$234,999.99	7.605%	16	0.21%	$165,903
$235,000–$239,999.99	7.790%	11	0.15%	$160,350
$240,000–$244,999.99	7.975%	24	0.32%	$328,606
$245,000–$249,999.99	8.160%	9	0.12%	$128,557
$250,000–$254,999.99	8.345%	21	0.28%	$300,331

UArizona Furlough/Flex Program under Minnesota Plan (Comparison purposes)				
UMN "Earnings Tier"[1]	**% of Pay Reduction**	**Positions[2]**	**Positions by %**	**Projected Amount**
$255,000–$259,999.99	8.530%	8	0.11%	$127,728
$260,000–$264,999.99	8.715%	13	0.17%	$256,717
$265,000–$269,999.99	8.900%	9	0.12%	$105,105
$270,000–$274,999.99	9.085%	10	0.13%	$86,499
$275,000–$279,999.99	9.270%	8	0.11%	$142,630
$280,000–$284,999.99	9.455%	11	0.15%	$264,525
$285,000–$289,999.99	9.640%	6	0.08%	$79,119
$290,000–$294,999.99	9.825%	3	0.04%	$63,253
$295,000+	10.00%	149	2.00%	$3,889,787
	Total	**10,778**	**100%**	**$18,042,135**

Appendix B. Example of Bond Issue Design

Description of 20 bonds to be issued with total face value of $200 million:

Maturity Date	Principal Amount	Yield
8/1/2021	$8,520,000	0.677%
8/1/2022	$8,620,000	0.807%
8/1/2023	$8,720,000	0.953%
8/1/2024	$8,820,000	1.154%
8/1/2025	$8,920,000	1.284%
8/1/2026	$9,020,000	1.512%
8/1/2027	$9,120,000	1.602%
8/1/2028	$9,320,000	1.666%
8/1/2029	$9,520,000	1.766%
8/1/2030	$9,720,000	1.866%
8/1/2031	$9,920,000	1.966%
8/1/2032	$10,120,000	2.113%
8/1/2033	$10,320,000	2.191%
8/1/2034	$10,520,000	2.234%
8/1/2035	$10,720,000	2.246%
8/1/2036	$11,020,000	2.272%
8/1/2037	$11,320,000	2.311%
8/1/2038	$11,620,000	2.349%
8/1/2039	$11,920,000	2.617%
8/1/2040	$12,220,000	2.607%

Schedule of cash flows for debt service:

Date	Principal Payment	Interest Payment	Total Payment
8/1/2021	$8,520,000.00	$3,740,241.67	$12,260,241.67
8/1/2022	$8,620,000.00	$3,682,561.27	$12,302,561.27
8/1/2023	$8,720,000.00	$3,612,997.87	$12,332,997.87
8/1/2024	$8,820,000.00	$3,529,896.27	$12,349,896.27
8/1/2025	$8,920,000.00	$3,428,113.47	$12,348,113.47
8/1/2026	$9,020,000.00	$3,313,580.67	$12,333,580.67
8/1/2027	$9,120,000.00	$3,177,198.27	$12,297,198.27
8/1/2028	$9,320,000.00	$3,031,095.87	$12,351,095.87
8/1/2029	$9,520,000.00	$2,875,824.67	$12,395,824.67
8/1/2030	$9,720,000.00	$2,707,701.47	$12,427,701.47
8/1/2031	$9,920,000.00	$2,526,326.27	$12,446,326.27
8/1/2032	$10,120,000.00	$2,331,299.07	$12,451,299.07
8/1/2033	$10,320,000.00	$2,117,463.80	$12,437,463.80
8/1/2034	$10,520,000.00	$1,891,383.16	$12,411,383.16
8/1/2035	$10,720,000.00	$1,656,327.86	$12,376,327.86
8/1/2036	$11,020,000.00	$1,415,528.07	$12,435,528.07
8/1/2037	$11,320,000.00	$1,165,128.82	$12,485,128.82
8/1/2038	$11,620,000.00	$903,485.14	$12,523,485.14
8/1/2039	$11,920,000.00	$630,552.79	$12,550,552.79
8/1/2040	$12,220,000.00	$318,566.76	$12,538,566.76

Bond model assumptions: Bond yields for each maturity were estimated based on a recent bond issuance by the University of Utah. We assume a 10 basis point increase in bond yields relative to the University of Utah's yields based on credit quality. The yields are estimates from taxable bonds.

Appendix C. General Furlough Design Issues

GFFAC recommends that UArizona utilize a furlough/furlough-based salary plan only as a last resort, and only in combination with other mitigation tools. Any furlough should follow a progressive "smooth curve" structure, with a floor of no less than a base salary of $60,000. At the evaluation points in October 2020 and March 2021, any increases in Net Tuition Revenue relative to current projections should trigger a proportional decrease of furlough days/rates, as well as a review process for layoffs and non-renewals.

GFFAC encourages Human Resources at UArizona to enable employees to access retirement savings to offset the furlough/furlough-based salary plan, support dismissed employees in accessing Federal Unemployment Benefits, and consider allowing a reversion to furlough days rather than flex days, particularly for non-administrative staff.