PERFORMANCE AUDIT

Office of the Washington State Auditor
Pat McCarthy

# University of Washington School of Dentistry: Improving Financial Health and Accountability

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# Executive Summary

## Background (page 7)

The University of Washington School of Dentistry is one of only two dental schools in the Pacific Northwest, serving students and patients from Washington and nearby states. The School of Dentistry operated at a deficit for over a decade without effective correction. These annual deficits resulted in approximately $40 million in operating debt owed to the university at the end of fiscal year 2019 – roughly the same amount as the School's annual budget. To reduce the deficits, the School has laid off staff, increased tuition and requested additional state funding, but it has not yet eliminated its deficit.

Dental students treat patients under close faculty supervision. Faculty check each step students complete, so dental school clinics need patients willing to accept longer treatment times. These patients are predominantly covered by Medicaid, so Washington's low Medicaid reimbursement rates have a significant impact on the School of Dentistry.

**Terms in this report**

A **deficit** occurs when a program spends more than it receives. For the School of Dentistry, a decade of deficits resulted in a $40 million **debt**, which it owes to the university. In addition, the School also took out a separate **loan** from the university's internal lending program to build its Center for Pediatric Dentistry.

## The School of Dentistry accumulated $40 million in debt, which it owes to the university, due to both poor decisions and challenges beyond its control (page 11)

Washington's Medicaid reimbursement rates are among the lowest in the country. Because the School of Dentistry depends on patients covered by this program, working with these low rates is beyond its control. On the other hand, the School's Center for Pediatric Dentistry has brought in only one-quarter of its projected revenue, in large part because of foreseeable problems in its revenue forecasts. The Center's revenue shortfalls have accounted for approximately half of the School of Dentistry's debt. In addition to the Center for Pediatric Dentistry, most of the School's other clinics also lose money. Finally, while the School of Dentistry has taken steps to increase revenue, no single action will be sufficient to repay its accumulated debt.

## The School of Dentistry could expand its use of performance data to improve its financial health

(page 23)

By improving use of its existing data and collecting information on other metrics, the School of Dentistry could better manage its operations. The School has not effectively tracked information it needs to identify and fix billing issues, which has resulted in about $3.5 million in lost revenue from correctable problems. The School has recently adopted new performance measures to help manage its clinics, and now has many performance measures that align with leading practices. However, the School still lacks some key management information, including information on faculty members' clinical availability and productivity, clinical costs and revenue collection. Finally, inconsistent use of clinic financial and productivity data contributes to the School's financial challenges.

## The University of Washington has improved its monitoring and oversight to ensure schools spend within their budgets, but could take further steps to reduce the risk of future deficits (page 34)

While the university gives its schools and colleges significant autonomy over financial matters, its Board of Regents is ultimately responsible for the university's financial well-being. The university has taken steps to improve its financial oversight and monitoring of schools and departments. However, gaps in the university's financial management processes and the antiquated financial systems that enabled the deficits at the School of Dentistry remain. Further, university training resources are insufficient to ensure department chairs are equipped for their financial responsibilities.

## The university and the School of Dentistry need a long-term strategy to reconcile competing financial, educational and service objectives (page 42)

The Board of Regents has the ultimate fiduciary responsibility for the university, and so must support university leaders and the School of Dentistry as they develop a feasible plan. The School lacks strategic direction balancing its financial responsibilities with its educational and service objectives. The university expects

the School to break even financially. At the same time, the School of Dentistry depends on patients willing to accept longer treatment times so students can gain necessary experience. Most of these patients cannot pay the full cost of care. Also, while the School is not officially a safety-net clinic, treating these patients meets its service objectives. In addition to addressing these strategic concerns, the School also needs to determine how much unpaid care it can realistically provide, and ensure faculty and staff work within set guidelines. Finally, the Board of Regents, university leaders and the School must develop a clear plan to address its long-standing financial liabilities.

## State Auditor's Conclusions (page 48)

As a result of structural financial imbalances and poor business decisions, the University of Washington's School of Dentistry has accumulated more than $40 million in debt, which it owes to the university. Of equal concern to the accumulation of debt is the fact that the university allowed this to happen.

The university's Board of Regents has given its schools and colleges significant autonomy over their financial decisions. While there is nothing inherently wrong with delegating those decisions, the university's leaders and the board are ultimately responsible for the financial impact of those decisions. To its credit, the university has taken positive steps to help prevent situations similar to what happened at the School of Dentistry from happening again. However, the gaps in financial oversight, the antiquated financial systems and the lack of business training for department chairs identified in this audit show the University of Washington still has plenty of work to do.

## Recommendations (page 49)

We made a series of recommendations to the School of Dentistry to address issues with its billing processes, to develop additional performance measures, and to ensure faculty can make the best use of available information, so that the School can improve its financial situation. We also made recommendations to University of Washington leadership to address gaps in financial risk assessment processes, to develop better training resources for academic experts with financial management responsibilities, and to work with the School to develop a strategy to navigate unresolved structural issues.

## Next steps

Our performance audits of state programs and services are reviewed by the Joint Legislative Audit and Review Committee (JLARC) and/or by other legislative committees whose members wish to consider findings and recommendations on specific topics. Representatives of the Office of the State Auditor will review this audit with JLARC's Initiative 900 Subcommittee in Olympia. The public will have the opportunity to comment at this hearing. Please check the JLARC website for the exact date, time and location (www.leg.wa.gov/JLARC). The Office conducts periodic follow-up evaluations to assess the status of recommendations and may conduct follow-up audits at its discretion. See **Appendix A**, which addresses the I-900 areas covered in the audit. **Appendix B** contains information about our methodology.

# Background

## The School of Dentistry is an important part of the University of Washington and serves students and patients from across the region

The University of Washington School of Dentistry ranks among the top dental schools in the country. It is one of only two dental schools in the Pacific Northwest, enrolling about 400 students from Washington and nearby states. Its faculty members provide some of the most advanced dental care in the region for children and adults, and offer several specialty programs. The School of Dentistry's mission statement emphasizes quality education, research and community service.

### The School of Dentistry teaches its students through hands-on clinical practice, which also serves its public service mission

The School of Dentistry administers 15 teaching and specialty-care clinics. These clinics provide a range of services, from preventive care to extensive restoration after traumatic injury. Some clinics are highly specialized – for example, one focuses entirely on care for patients with developmental and acquired disabilities.

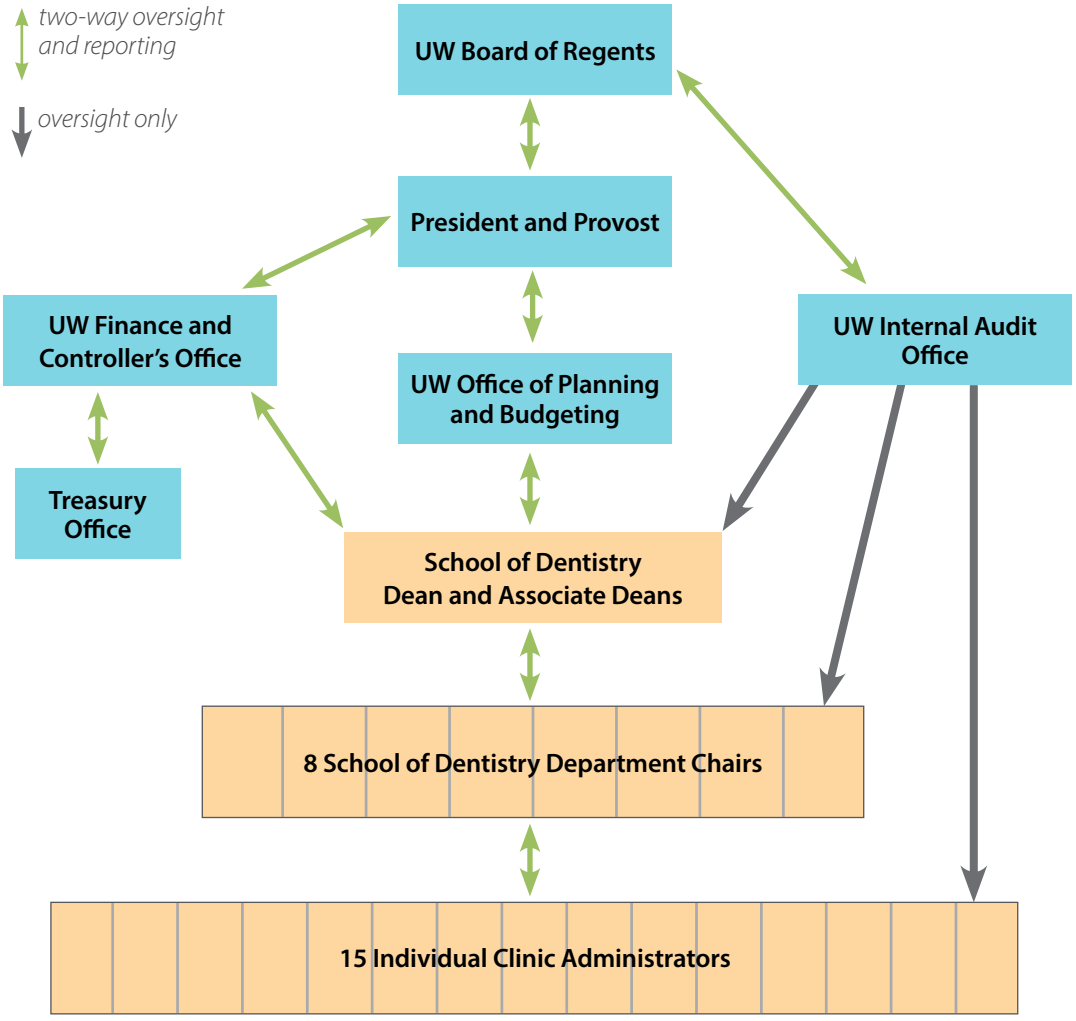
Clinical practice is an important and expensive part of all dental school training. Students treat patients under close faculty supervision, with faculty members checking each step the student completes. Treatment often takes longer than at private dentists but fees are lower to offset this inconvenience. The significant faculty oversight is necessary because students perform permanent dental and surgical procedures under the faculty member's practitioner license. Such detailed, intensive oversight results in substantial faculty costs. Furthermore, dental students are expected to perform surgery independently at the end of their four-year program. This is a much greater degree of mastery than is expected of medical school graduates, who practice under supervision for several years following graduation.

Clinical care also meets the School of Dentistry's service mission by providing care to patients other dentists cannot or will not treat. This includes a large number of patients covered by Medicaid. When the School considered trimming costs by reducing programs and services, legislators and the public objected. In 2017, the previous dean proposed suspending admissions to some of the School's student residency programs, but 43 state legislators signed a letter in opposition and the plan was dropped. In 2018, the School made changes that would reduce the services offered by one of its expert practitioners; in media coverage, a legislator said it was unacceptable to cut these services without ensuring patients had an alternative source for care.

## The School of Dentistry and its clinics operate with significant financial and operational autonomy within the University of Washington system

The university is a decentralized system with many layers; it is partially illustrated in **Exhibit 1**. The Board of Regents has the ultimate authority and responsibility to supervise, manage and regulate the university. The board appoints the president, who leads the university with the support of a team that includes the provost. The deans at the university's 16 schools and colleges report to the provost, but they operate autonomously within the university's decentralized system. The university's Finance Office and the Office of Planning and Budgeting monitor school-level finances, but neither has had direct access to financial information for the School of Dentistry's clinics. Each clinic has its own budget, or multiple budgets, several of which are over $1 million.

**Exhibit 1 –** The university's financial oversight system has many layers between the Board of Regents and School of Dentistry clinics



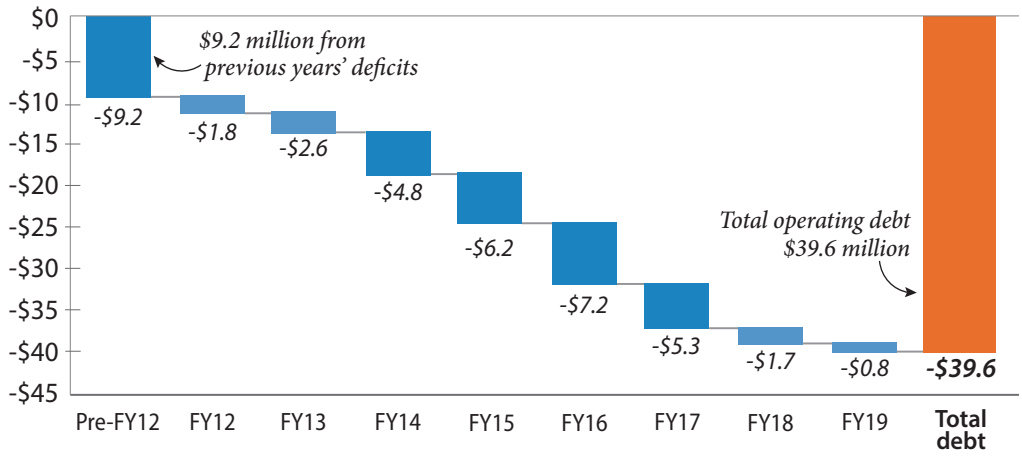
The School of Dentistry, although important in its mission, comprises a very small part of the university's budget. The School's annual budget of $40 million is about half a percent of the university's total budget, which was almost $8 billion for fiscal year 2019. By contrast, the budget for the School of Medicine – which operates independently of the School of Dentistry – was $1.5 billion in fiscal year 2019, almost 20 percent of the university's overall budget.

## The School of Dentistry has long struggled financially

For several years, the School spent more than it received, operating at a deficit without effective correction. Since 2012, there have been several internal audits, a report from an outside consultant and two formal plans to reduce the deficits. The current plan requires the School to report to the Board of Regents every six months. At one point, the university's Office of Planning and Budgeting briefly took control of the School 's finances. Even with this scrutiny, the School's annual deficits continued over more than a decade, accumulating almost $40 million in operating debt by the end of fiscal year 2019, as shown in **Exhibit 2**.

**Exhibit 2** – Each year's annual deficit adds to the School of Dentistry's operating debt

*Data in fiscal years, dollars in millions*




Source: School of Dentistry financial reports.

The $40 million in debt owed to the university is roughly the same amount as the School of Dentistry's annual budget. In addition, the School borrowed money to refurbish a building at the former Magnuson Park Naval Base to house its Center for Pediatric Dentistry; annual payments on this loan will continue until fiscal year 2042.

The School has taken steps to address its financial situation, for example, cutting staff, raising tuition and seeking additional state funding. These efforts have helped slow the deepening debt: from 2012 to 2016 the deficits grew, but then started to decline. The fiscal year 2019 deficit was under $1 million, compared to $7.2 million in fiscal year 2016.

**Terms in this report**

A **deficit** occurs when a program spends more than it receives. For the School of Dentistry, a decade of deficits resulted in a $40 million **debt**, which it owes to the university. In addition, the School also took out a separate **loan** from the university's internal lending program to build its Center for Pediatric Dentistry.

## This audit examined issues that contributed to the School of Dentistry's deficits and identified ways the School and the university can improve the situation

We conducted this audit due to legislative interest and the School of Dentistry's critical role in the region. We looked at key causes for the deficits, what the School could do to improve its financial health, and ways the university can support its colleges and schools and hold them accountable for sound financial management.

The audit asked the following questions:

1. What were the key financial causes of the School of Dentistry's accumulated operating debt?
2. How can the School of Dentistry better use financial and productivity data to inform decision-making and improve financial sustainability?
3. How can the University of Washington improve its governance model to prevent and respond to similar financial management problems in other schools and departments?

# Audit Results

## Section One. The School of Dentistry accumulated $40 million in debt, which it owes to the university, due to both poor decisions and challenges beyond its control

### Summary

Washington's Medicaid reimbursement rates are among the lowest in the country. Because the School of Dentistry depends on patients covered by this program, working with these low rates is beyond its control. On the other hand, the School's Center for Pediatric Dentistry has brought in only one-quarter of its projected revenue, in large part because of foreseeable problems in its revenue forecasts. The Center's revenue shortfalls have accounted for approximately half of the School of Dentistry's debt. In addition to the Center for Pediatric Dentistry, most of the School's other clinics also lose money. Finally, while the School has taken steps to increase revenue, no single action will be sufficient to repay its accumulated debt.

## Washington's Medicaid reimbursement rates are among the lowest in the country, but the School depends on patients covered by this program

Medicaid (also known as Apple Health in Washington) is a federal and state program that helps with medical and dental costs for some people with limited resources. The federal government sets certain minimum requirements, but states have a great deal of discretion about how they participate in Medicaid. States can decide who qualifies for certain types of coverage, what services are covered, and how providers are reimbursed. Both the federal government and the states pay for provided services, and the pool of money available to reimburse providers is limited by the amount each state contributes. Research shows Washington's Medicaid reimbursements to dental providers are among the lowest in the country, paying about 40 cents for every dollar paid by private insurance for children's dental treatments, and even less for adults.

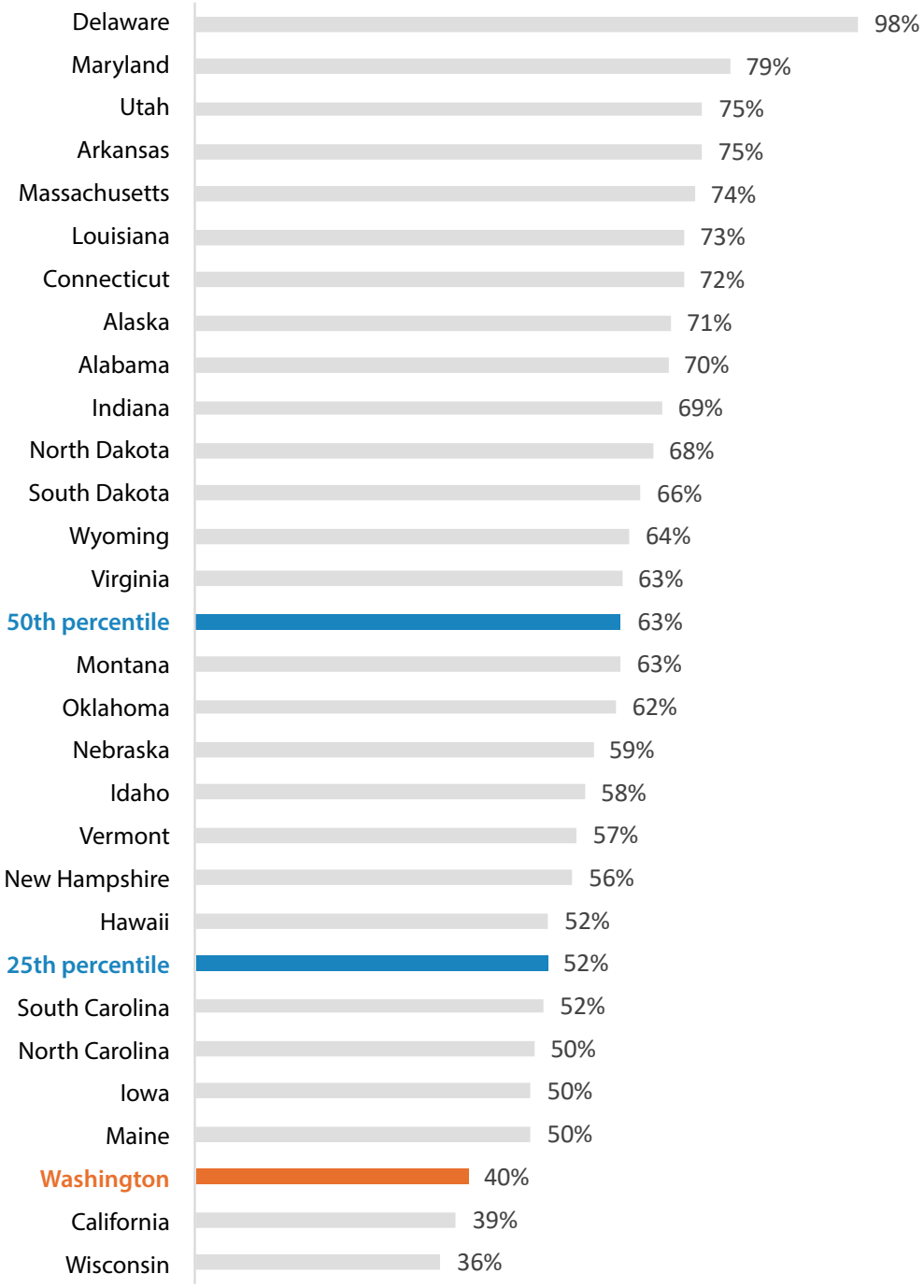
## The School could have collected more than $11 million more during fiscal years 2012 through 2018 had Washington's low Medicaid reimbursement rate been on par with other states

Washington has one of the lowest Medicaid reimbursement rates for dental services in the country. Researchers with the American Dental Association's Health Policy Institute calculated that Washington's Medicaid reimbursement rates in 2016 were the third lowest among states that pay dentists per treatment (also known as fee-for-service), as shown in **Exhibit 3** on the following page.

Researchers calculated an overall reimbursement rate for fee-for-service states by selecting a sample of common dental treatments, then comparing what the state's Medicaid program would pay with what private dental insurance would typically pay. While the national median Medicaid reimbursement was about 63 percent of private dental insurance reimbursement for children's dental service, Washington reimbursed only 40 percent. This is not a recent trend. The Health Policy Institute researchers found Washington's reimbursement rate for dental services has been in the bottom quartile among fee-for-service states since at least 2003, and has decreased over time. In particular, although most states' reimbursement rates increased from 2013 to 2016, Washington's did not.

## Exhibit 3 – Washington's Medicaid reimbursement is among the lowest in the nation

*Medicaid reimbursement shown as a percent of private insurance reimbursement. Data shown only for states with fee-for-service Medicaid programs*

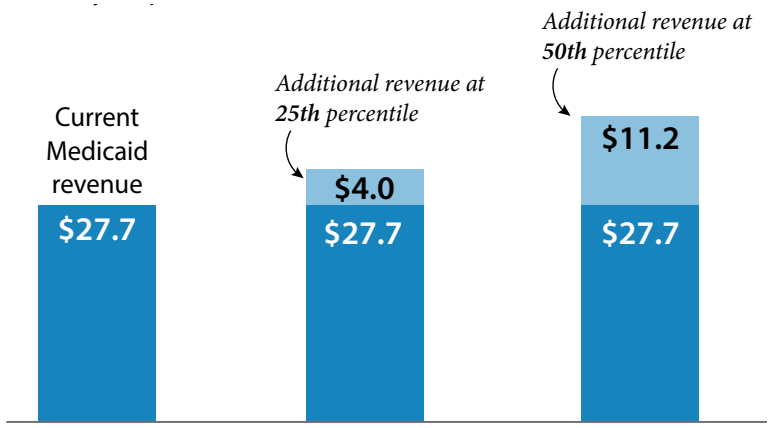



Source: Gupta, N. et al. "Medicaid Fee-For-Service Reimbursement Rates for Child and Adult Dental Care Services for all States, 2016." American Dental Association. April 2017. Auditor calculation for 50th and 25th percentiles.

Because Washington's Medicaid reimbursement rates are so much lower than those of other states, we calculated the additional revenue the School of Dentistry could have received had Washington's Medicaid program reimbursed at levels comparable to other states. Medicaid paid $27.7 million for the School's dental services during fiscal years 2012 through 2018. If the state had paid Medicaid reimbursement at a rate comparable to the 50th percentile nationwide, as illustrated in **Exhibit 4**, the School could have received $11.2 million more in revenue. Even a more modest increase in the Medicaid reimbursement rate – comparable to the 25th percentile nationwide – could have brought in $4 million more revenue for the School. These calculations assume the School continued to serve the same number of Medicaid patients. They also assume that the School did not make any improvements to its billing and collection practices to bring in more of the revenue it is owed, an issue we discuss in more detail in Section Two.

## **Exhibit 4 –** The School of Dentistry could have received over $11 million more if Washington's Medicaid program reimbursed on par with the 50th percentile of states nationwide

***Based on fiscal years 2012-2018; dollars in millions***




Source: Auditor analysis of billing information from the School of Dentistry for fiscal years 2012-2018, and research conducted by the American Dental Association's Health Policy Institute comparing Medicaid reimbursement rates in different states.

**The School of Dentistry recently began receiving payments to supplement Medicaid reimbursement.** The Legislature created Washington's Professional Services Supplemental Payment Program in 2010 to cover some of the difference between Medicaid reimbursement and what private insurance pays. This program is allowed under the federal Medicaid program, and like Medicaid uses both federal and state funds. The Legislature made the program available to medical providers at the University of Washington and other public hospitals. When the School of Dentistry determined it was eligible, it applied for funding and in 2018 began receiving payments totaling $2.1 million. This revenue was in addition to the $27.7 million paid by Medicaid during fiscal years 2012 through 2018.

Washington's Medicaid program currently pays dental providers using a fee-for-service model, but is considering changing to a managed-care model. Under managed care, the state would contract with managed-care organizations and pay them monthly premiums to manage and fund reimbursement to dental providers. If the state made this change, the School of Dentistry would no longer be eligible for the Professional Services Supplemental Payment (PSSP) Program. Although a similar program is available for states that use managed-care models, it is unknown whether it would provide the same level of support to the School.

## Few private dentists will accept patients covered by Medicaid. Treating these and other underserved patients is a core part of the School of Dentistry's public service mission.

Patients covered by Medicaid often struggle to find a dentist willing to accept it. The Kaiser Family Foundation reported that, nationally in 2015, working-age adults with Medicaid or other government-funded insurance were more than twice as likely to report an unmet need for dental care as adults with private insurance (35 percent versus 16 percent). In Washington, media reports have described people standing in line through the night, traveling from Vancouver to Seattle, and resorting to crude forms of self-treatment, all because they could not find a dentist willing to accept Medicaid.

Washington's comparatively low Medicaid reimbursement rates parallel private dentists' low participation in the program. According to the Health Policy Institute, in 2016, Washington was one of the five states with the fewest dentists participating in Medicaid for child dental services – only 20 percent of dentists. Furthermore, in 2016 three quarters of participating dentists limited their participation by declining to accept any new Medicaid patients, according to the Washington Health Care Authority.

While many private dentists turn away patients covered by Medicaid, the School of Dentistry has accepted an increasing number of them. In 2012, the School treated fewer than 9,000 patients covered by Medicaid; by 2018, this number had risen to about 15,000. Medicaid patients also formed a much higher share of the School's patient caseload, increasing from 28 percent to 42 percent. The School's leaders regard serving this patient population as fulfilling the "service to the community" aspect of its mission. Interim Dean Gary Chiodo wrote in 2019, "As one of Washington's biggest Medicaid dental providers, we are an integral part of the state's public health safety net. All fourth-year students provide care for underserved/rural populations." Not only does the School want to provide this care, it also needs patients to provide enough opportunities for students to hone their skills. As a consequence, however, the School is likely to face a chronic funding deficit because reimbursement for Medicaid-covered dental services fails to cover the costs of providing this care.

### Just as Medicaid depends on the School of Dentistry, the School depends on a supply of patients willing to accept significantly longer treatment times

Dental students need to treat patients to learn all the skills necessary to become practicing dentists. Students do practice with models (as shown in the photograph), but rubber gums and plastic teeth do not adequately simulate swollen or bleeding gums, cavities, tooth fractures or saliva, and model teeth cannot be adequately bonded with the adhesives dentists use.

Treatment at a dental school clinic can take significantly longer than treatment by a private dentist. Dental care provided by students is slower because faculty members review student work step by step. It may also require rework to ensure quality. The interim dean said student clinicians take up to three times longer than private-practice dentists.

Students can only learn so much working on rubber and plastic models.

Photo source: GTSimulators.com.

## The Center for Pediatric Dentistry brought in only one-quarter of its projected revenue, which has added to the School of Dentistry's debt

In 2007, the School of Dentistry partnered with Seattle Children's Hospital to build a state-of-the-art Center for Pediatric Dentistry. Both partners' stated intention was to increase their capacity to serve children in the region. Seattle Children's Hospital agreed to compensate the School in exchange for partial use of the building.

The School sought financing to develop the Center for Pediatric Dentistry through the university's internal lending program, managed by the university's Treasury Office. This program uses bonds and other university funds to help schools and colleges finance capital projects. The School of Dentistry started the project about a year before Treasury instituted the internal lending program, and the Center was one of the first loans approved. As part of its application, the School submitted a plan that estimated the number of patients and the revenue provided by their insurance coverage, and projected the Center would break even during its first year of operation. The School used the loan to renovate a former Sand Point Naval Base building in Seattle's Magnuson Park.

### Revenue for the Center has been only one-quarter of projections, contributing $20.2 million to the School's accumulated debt owed to the university

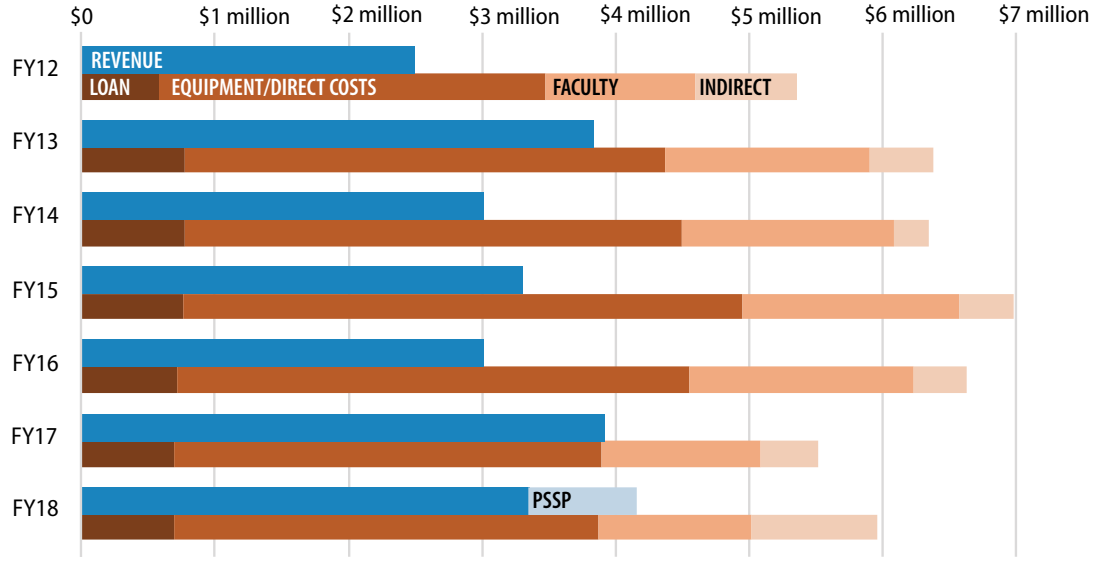
Differences between projections and results mean the Center struggles to bring in enough revenue to cover its costs. The Center has treated half the number of patients it expected: 21,000 in fiscal year 2015 compared to an estimated 40,000.

Reimbursement projections were also unrealistic. The School of Dentistry's plan projected private insurance would reimburse at 100 percent of its fees, even though private insurance companies rarely pay the full billed price. It also projected Medicaid would reimburse 60 percent of its fees, even though Medicaid reimbursed less than 50 percent at the time the plan was assembled, and today reimburses only 40 percent of what private insurance does.

The university's Treasury Office did not adequately challenge the project plan's unrealistic assumptions because its staff lacked the necessary subject-matter expertise. Treasury reviewed the plan and related risks such as low patient volume. The School also shared the plan's assumptions with the Washington Dental Service and Seattle Children's Hospital. However, Treasury could not feasibly have had the necessary subject-matter expertise to scrutinize the wide variety of projects undertaken by the various schools and colleges, so it relied on the applicants for expertise related to their project plans. This issue continues today and is discussed further in Section Three.

In addition to unrealistic projections, the School of Dentistry lost planned revenue when its partnership with Seattle Children's Hospital failed in 2013. Without the Seattle Children's partnership, without the projected patient volume, and with reimbursement less than assumed, the Center brought in $22.9 million over seven years, one-quarter of the $90.6 million projected for the same time period. For all these reasons, the Center's expenses have exceeded its revenues by $20.2 million during fiscal years 2012 through 2018. This amount represents about half of the School's accumulated operating debt owed to the university. Total revenue during this time was $22.9 million; total expenditures were almost twice as much, at $43.2 million, as shown in **Exhibit 5**.

**Exhibit 5** – Revenue has not covered direct costs, let alone faculty and indirect costs
*Fiscal years, dollars in millions*




Note: PSSP stands for Professional Services Supplemental Payment Program. This revenue is discussed on pages 14 and 15.
*Source: School of Dentistry financial reports.*

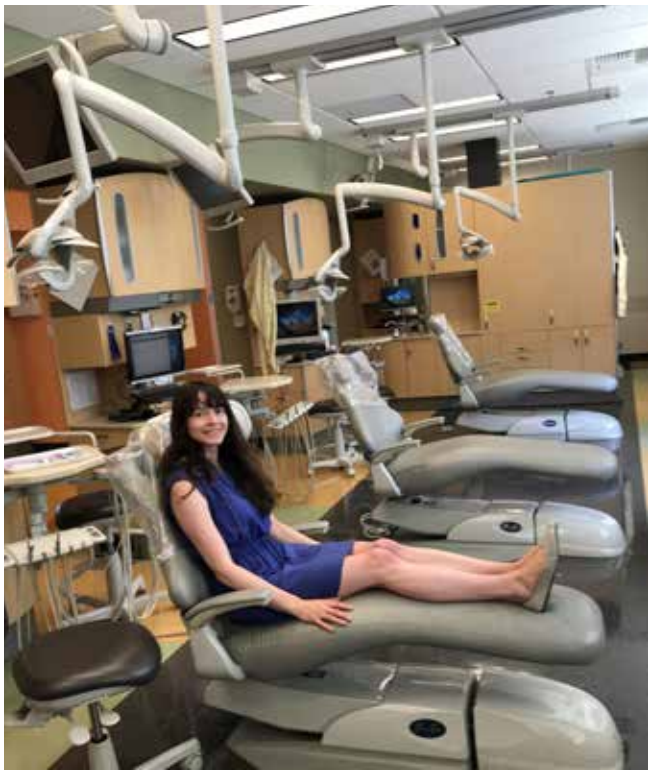
Most of these costs were for equipment, supplies, and staff salaries and benefits. In addition to these direct costs, the Center has not been able to cover faculty members' salaries and benefits or its portion of the School of Dentistry's shared services – challenges we discuss in further length in Section Two and in **Appendix C**.

One consistently recurring expense is the approximately $700,000 annual debt service payment towards the loan used to renovate the building housing the Center. The original loan was for $11.3 million; at the end of fiscal year 2018, the School had repaid $5 million in principal and interest. More than $15 million in principal and anticipated interest is still outstanding on this loan, and payments will continue through fiscal year 2042. The total obligation, which will come to $21.2 million, makes it difficult to balance the Center's budget.

## Design constraints and other barriers limit how easily the building could serve more patients

The School of Dentistry designed the Center for Pediatric Dentistry's building to treat more than 40,000 patients annually, which is significantly more than its current use. For example, the School reports the Center had about 17,000 visits in fiscal year 2018. Indeed, we visited the pediatric clinic on several occasions during normal business hours and observed numerous empty dental chairs. But clinics designed to treat children, such as this one, have design properties that make serving other patients somewhat problematic. For example, the dental chairs are arranged in several open rows, with no dividing walls or partitions between them (as shown in the photograph). This is common for pediatric dentistry, because it promotes good behavior from children. Serving adult patients covered by private insurance would help the School financially, but its leaders are concerned this layout could be an obstacle, because they believe adults would expect more privacy.

The building also has three operating rooms specifically designed for the needs of pediatric dental surgery and originally intended for use by Seattle Children's Hospital patients. Due to lack of patient volume following Seattle Children's withdrawal from the partnership, the School uses only one of the three operating rooms for surgery. It uses the second operating room as a surgical recovery room, while the third is used for storage. Seattle Children's has since considered using the ground-floor operating rooms for a different type of surgery, but it could not get the necessary equipment through the building doors.



The chairs accommodate adults (as a member of the audit team demonstrates), even though the open floor-plan is not well suited to adult patients.

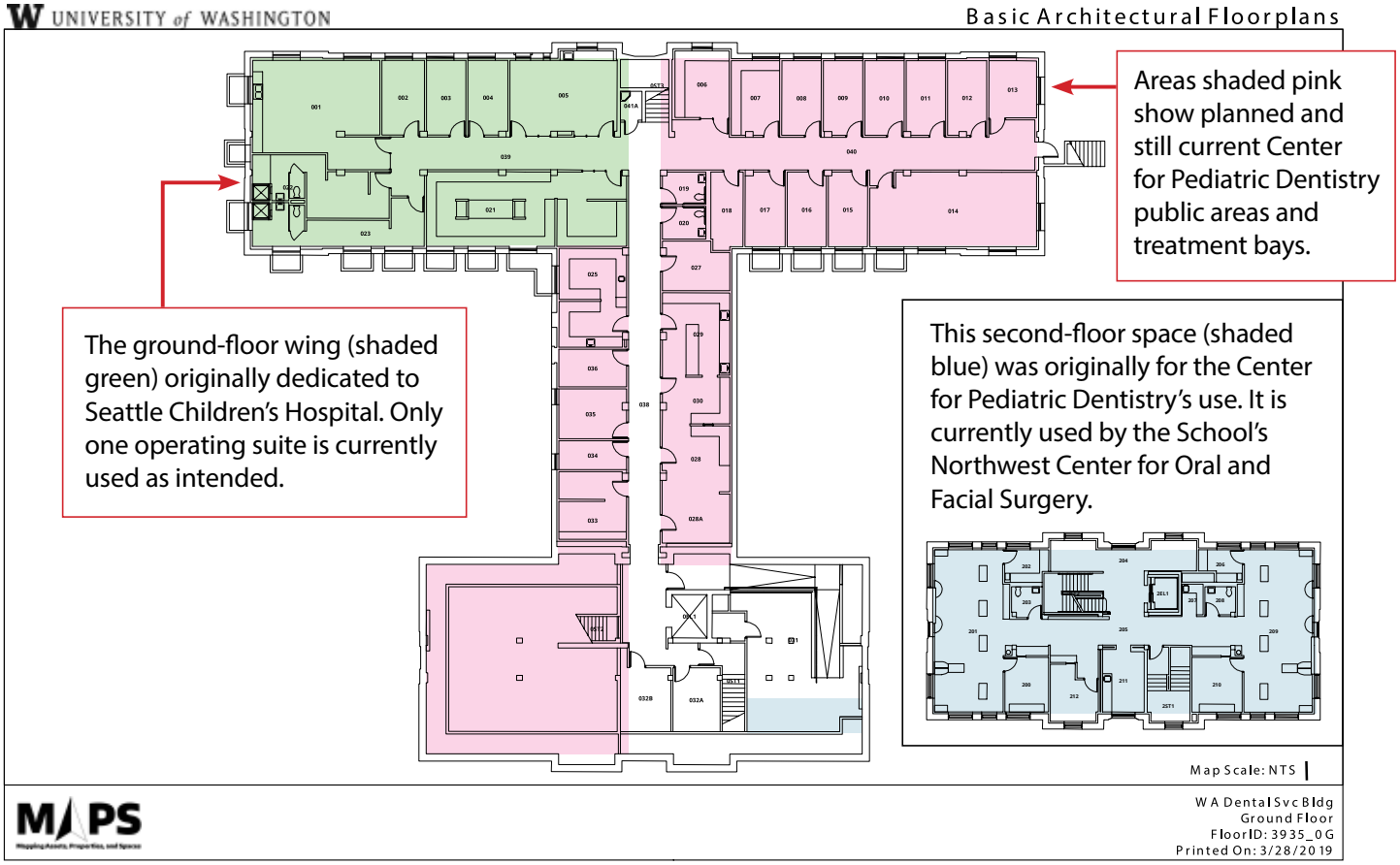
Photo source: State Auditor's Office .

Finally, the building is subject to restrictive covenants which limit other options to generate more revenue. It is located in the historic admiral's headquarters of the Sand Point Naval Station Puget Sound. In 1999, the Navy sold the former admiral's headquarters and several nearby buildings to the university for one dollar, provided the university only use the property for educational purposes for at least 30 years. Effectively, this means the university cannot lease even part of the building to a for-profit venture until 2029.

## The School of Dentistry repurposed part of the building and renamed it the Magnuson Park Clinic

After Seattle Children's left the partnership, the School repurposed one floor of the building. In 2017, it moved its oral surgery clinic, the Northwest Center for Oral and Facial Surgery, to the building's second floor, and renamed the building the Magnuson Park Clinic to denote its wider use. The illustration in **Exhibit 6** shows space as it is currently used.

**Exhibit 6 –** The renamed Magnuson Park Clinic now houses the School of Dentistry's Northwest Center for Oral and Facial Surgery as well as the Center for Pediatric Dentistry




Source: School of Dentistry with auditor notations.

### The School of Dentistry needs to analyze potential costs and benefits of its plans to maximize use of the Magnuson Park Clinic

To further improve the School's use of the Magnuson Park Clinic building, the interim dean also wants to establish a new faculty practice there. A faculty practice allows the general public to receive dental care directly from the School's experienced professors. Some dental schools use faculty practices to generate significant revenue, with the top-earning school reporting net revenues of about $13 million a year. The University of Washington's School of Dentistry had a faculty practice for many years, but the Internal Audit Office identified several concerns regarding oversight and structure of the previous plan, which contributed to the deficits instead of generating net revenue for the School. The interim dean is in the process of establishing a new faculty practice based on a different model.

Several additional options to increase revenue are also under consideration. The School would like to expand clinic hours to include Saturdays, which could help patients avoid lost work or school hours. The School has also proposed a new arrangement to Seattle Children's Hospital, whereby the clinic would serve patients that exceed Seattle Children's current available capacity.

However, while these possibilities are promising, the School has not formally assessed their feasibility. We developed a template to help School officials analyze each option's costs and benefits and gave it to the School.

The template we gave the School of Dentistry to help it analyze the costs and benefits of various proposals is available on our website at sao.wa.gov/pa_uw_school-dentistry_cost-benefit-analysis/

## In addition to the Center for Pediatric Dentistry, most of the other clinics also lose money

The School of Dentistry has numerous clinics, programs and practices, most of which operate with annual deficits. The School's website advertises 15 teaching and speciality-care clinics, but within these clinics are additional distinct budgets for separate programs and dental practices. For fiscal year 2018, the School's clinical accounting department prepared financial statements for 28 individual clinics, programs and practices. Our review of these statements showed that few fared well financially:

- Only six of the 28 clinics, programs and practices broke even, covering all their allocated expenses, including direct costs (such as supplies and staff), faculty salaries and benefits, and indirect costs (such as the accounting team serving the entire School)
- The majority could cover direct costs, but struggled to cover faculty salaries and benefits and indirect costs
- Seven of the 28 could not cover even the cost of their supplies, staff and other direct costs

In total, during the four fiscal years 2015 through 2018, clinic costs exceeded revenues by $18 million. Two-thirds was associated with the Center for Pediatric Dentistry, another third stemmed from losses in other clinics. For more details on clinic costs and revenues, see Appendix C.

## The School of Dentistry has taken steps to increase revenue, but no single action will be sufficient to repay its accumulated debt

### School leaders have raised tuition such that the School is currently one of the most expensive dental schools in the country

The School of Dentistry has increased its tuition such that it is now among the highest charged by public dental schools in the United States. It almost doubled in-state tuition for first-year students in the Doctor of Dental Surgery (DDS) program from fiscal years 2011 to 2017, from $24,000 to $47,000, while raising tuition for out-of-state first-year students from $50,000 to $71,700. The School's in-state tuition is even higher than out-of-state tuition at some other public dental schools. During the 2018-2019 school year, of 40 public institutions:

- **First year in-state tuition at the School of Dentistry was the third highest in the nation.** Nationwide, in-state tuition rates for first-year DDS students ranged from $18,000 to $60,000; the School charged $56,000.
- **First year out-of-state tuition at the School of Dentistry was the second highest.** Nationwide, out-of-state tuition rates for first-year DDS students ranged from $29,000 to $99,000; the School charged $85,000.

The School can do this because it has full control over how much it charges for tuition. It is unaffected by legislative directives limiting increases in resident undergraduate tuition because none of its students are undergraduates. Beginning in fiscal year 2018, the School froze tuition rates for its DDS students.

For more information on how the larger university uses tuition paid by dental students, see **Appendix D**.

## The School of Dentistry has received some additional funding from the Legislature and Seattle Children's Hospital

The Legislature included $2 million for the School in its 2019-2021 biennium budget. The money is intended to support the School in its role as a major oral health provider to patients covered by Medicaid and the uninsured. The School asked for additional support from the Legislature, but has not received a commitment from the state.

In 2016, Seattle Children's Hospital awarded $1.5 million in grant money to the Center for Pediatric Dentistry, to provide care for patients who would otherwise be seen at Seattle Children's. The School asked for additional funding from Seattle Children's, but has not received a commitment from the hospital.

## The School of Dentistry has increased the number of students in the international dentist program

By increasing the number of students in the international dentist program, the School can take advantage of a unique revenue stream. This program offers qualified dentists from other countries the opportunity to earn an additional degree. These dentists pay about $80,000 a year to participate in the program, which is paid directly to the School as student fees. Because the university does not treat these payments as tuition, it does not withhold any portion to cover its administrative costs. In fiscal year 2011, the School first enrolled five students into the international dentist program; in fiscal year 2019, 25 students participated, bringing in over $2 million.

# Section Two. The School of Dentistry could expand its use of performance data to improve its financial health

## Summary

By improving use of existing data and collecting information on other metrics, the School of Dentistry could better manage its operations. The School has not effectively tracked information it needs to identify and fix billing issues, which has resulted in about $3.5 million in lost revenue from correctable problems. The School has recently adopted new performance measures to help manage its clinics, and now has many performance measures that align with leading practices. However, the School still lacks some key management information, including information on faculty members' clinical availability and productivity, clinical costs and revenue collection. Finally, inconsistent use of clinic financial and productivity data contributes to the School's financial challenges.

# The School of Dentistry has not effectively tracked information it needs to identify and fix billing problems, which have resulted in lost revenue

## Correctable billing problems from fiscal years 2012 through 2018 led to write-offs that represent about $3.5 million in lost revenue

When the School of Dentistry is unable to collect all or part of the payment it is owed for providing dental treatment, it must write off that payment as uncollectable revenue. Sometimes this is unavoidable, such as when a patient who owes the School payment declares bankruptcy or dies. However, during fiscal years 2012 through 2018, the School wrote off 3 percent of total treatment fees due to correctable billing problems. These fees represented about $3.5 million in revenue the School could have received, assuming typical contractual adjustments for both Medicaid and private insurance. However, other factors could affect the School's ability to capture this revenue. On one hand, School officials believe some patients might refuse service if they had to pay out of pocket; on the other hand, the School could conceivably raise philanthropic funds to cover the cost of care for these patients.

Write-offs generally occur in one of three circumstances: the insurer refuses to pay for a treatment, the School of Dentistry does not properly bill patients for treatment, or the patients cannot pay their share. For example, insurance companies set conditions on treatments to limit when they will pay. Medicaid only pays for a crowned tooth for patients who are 15 through 20 years old, and will reject a bill for a crowned tooth in a 14-year-old. Some – but not all – causes for write-offs can be avoided with improved billing and collections practices. Without timely and accurate information on these causes, however, it is difficult for the School to determine where improvements would be most cost-effective.

## The School of Dentistry has been unable to identify and fix billing problems because it has lacked a process to collect the necessary information

Billing staff enter codes in the School's electronic health records system, Axium, to indicate why they wrote off a patient's bill. However, these codes provide insufficient information for clinic administrators to identify and fix root causes for billing problems. For example, the code staff use to indicate Medicaid denied payment was used in at least five different scenarios that resulted in a patient bill being written off:

- Scheduling routine treatments such as cleaning and fluoride varnish outside the time frames when insurers are willing to pay them.
- Dental students and faculty documenting their work using treatment codes that differ from how insurers categorize the procedures.
- Students unwittingly billing treatments insurers are not willing to pay for and supervising faculty not catching those errors.
- Providers billing treatments deemed medically necessary despite knowing insurance would not pay for them.
- Providers not properly obtaining patients' permission to bill them for services not covered by Medicaid.

With all of this information captured under a single code, clinic administrators cannot effectively identify and address the underlying problems. For example, we identified one issue in which providers preferred to classify patients as "children" or "adults" based on whether their teeth were permanent or primary, but insurance defined "children" as under 14 years old. If clinic administrators had information on how frequently this issue occurred, they could work with providers to emphasize that treatment codes should follow insurance rules based on age rather than teeth being permanent or primary. Although the School has not collected such detailed information about write-offs in the past, it is exploring how to capture and report the level of detail that will help identify what errors contributed to the refused payment.

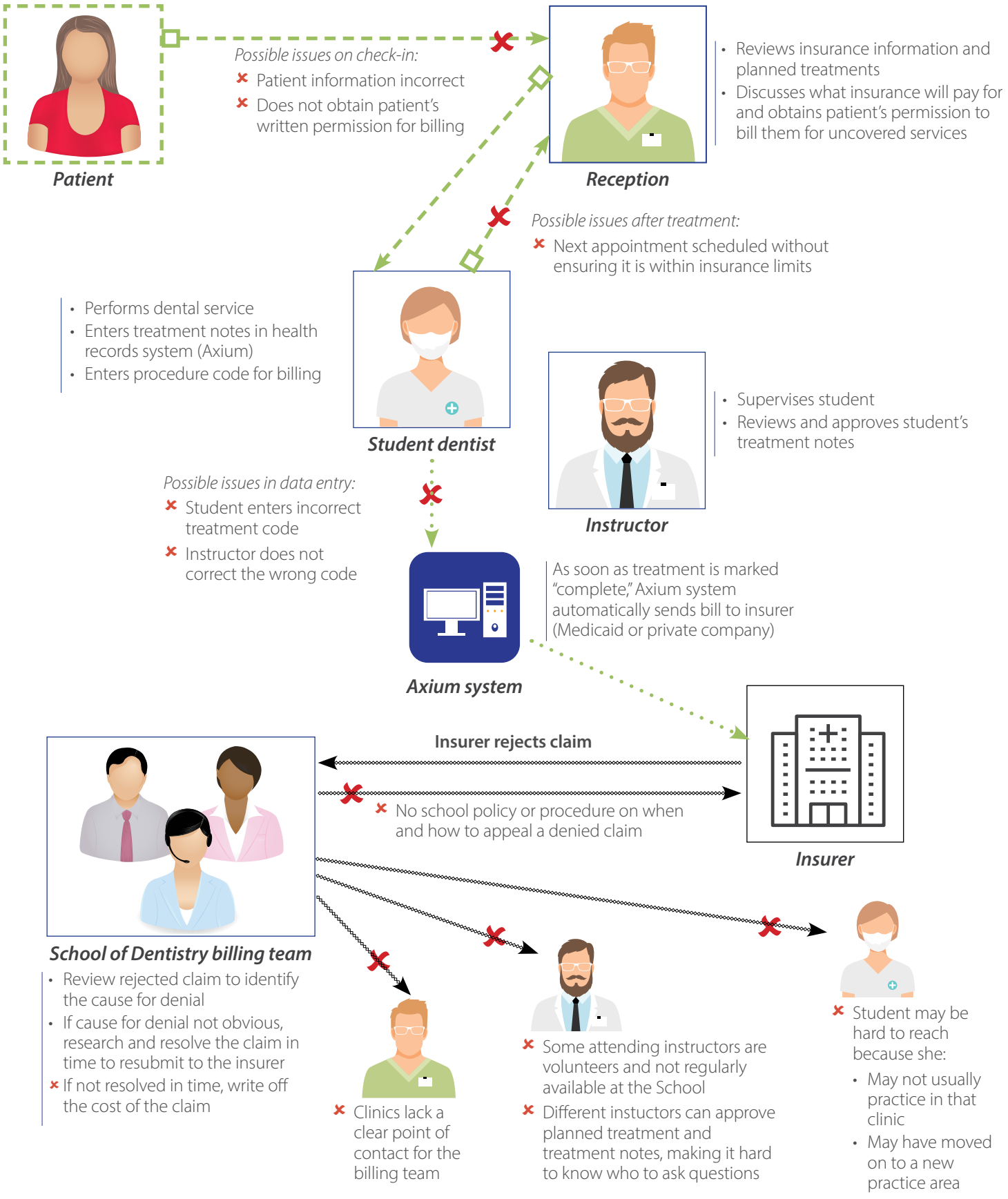
The School of Dentistry already has tools to help prevent some of these causes, but not all of the clinics use them. Axium has a feature that can alert clinic staff if insurance might not pay for a planned treatment, such as when it has been scheduled too soon after a previous treatment. However, one large clinic with ongoing deficits does not use this feature, reportedly because providers see too many patients to have the time to enter planned treatments in the system before the date of service. The clinic's department chair wants to find a way to ensure clinic staff and providers make use of this existing tool.

**Using this single code for multiple write-offs obscures how frequently providers treat patients who cannot pay, and the related cost to the School.** The School does not track when providers treat patients despite knowing the treatments would not be covered, because its official policy requires payment at time of service. Without tracking when this occurs, the School cannot quantify how much potential revenue it forgoes as a result. It also makes it difficult to raise funds from private donors to support this treatment. As we discuss further in Section Four, establishing a formal policy to define and manage this type of unpaid care would allow the School to identify the scale of the problem.

## Because the School of Dentistry's billing process has multiple weaknesses, it has difficulty identifying and fixing billing problems, resulting in unnecessary write-offs

The process used to bill insurance companies for treatments has several points where it can break down, resulting in lost revenue. **Exhibit 9**, on the following page, illustrates many potential breakdowns. For example, patient information may be incorrect; front desk staff may not obtain the patient's written permission to charge for certain services; follow-up appointments may be made without reference to the patient's benefit coverage; and students may use incorrect dental codes that faculty do not catch. Any one of these mistakes can result in the School not being paid.

**Exhibit 9 –** Mistakes in the School's process before a treatment is billed can result in lost revenue




Source: Auditor created.

**Axium's current configuration means clinic administrators cannot review treatments for accuracy before the bills are sent to insurers.** Once providers mark a treatment complete in Axium, a bill is automatically sent to the patient's insurer. If there are mistakes in the bill – such as incorrect patient gender or the wrong procedure code – the insurance company will deny the claim, and billing staff will have to research why and whether it can be fixed. The associate dean for finance is looking into changes to Axium that would allow clinic administrators to review treatment information before the system sends out bills. This step would help catch simple mistakes when they can be easily fixed.

**The School of Dentistry needs clear procedures to facilitate communication between billing and clinic staff.** When a step in this process breaks down, the School's billing staff must identify the problem and find the information necessary to fix it so they can resubmit the bill to the insurer. In many cases, poor communication and follow-through between the clinics and billing staff result in the write-off of a rejected bill. As Exhibit 9 shows, resolving a billing issue may require communication between the billing team and multiple people at the clinics. But since each clinic is managed differently, billing staff rarely have consistent contacts at the clinics. Furthermore, the School has not established authoritative expectations for how clinic and billing staff should interact. For example, the billing manager said there are no expectations for how quickly clinic staff should respond to billing staff, and how long billing staff should wait for a reply before writing a bill off as uncollectable.

Separate from this performance audit, the university's Internal Audit Office reported in November 2019 that the School of Dentistry lacked important policies and procedures for its billing and collections. The internal audit found the School had not developed procedures to ensure write-offs were applied and documented consistently, such as requiring manager approval for write-offs over a certain dollar threshold.

**Billing staff only recently developed needed monitoring reports.** The internal audit also found the School lacked a report to review denied claims, instead relying on an accounts receivable aging report to flag claims that may have been denied. A newly developed report, which is now being run weekly, will allow billing staff to identify problems before it is too late to correct the bill. Internal auditors also found the School lacked access to monitoring reports showing all write-offs and who entered each write-off. The billing team recently learned how to access a report with this information, which will allow the billing manager to identify trends that might indicate treatments are being written off unnecessarily and ensure staff are appropriately trained. See **Appendix E** for the internal audit's recommendations to the School of Dentistry.

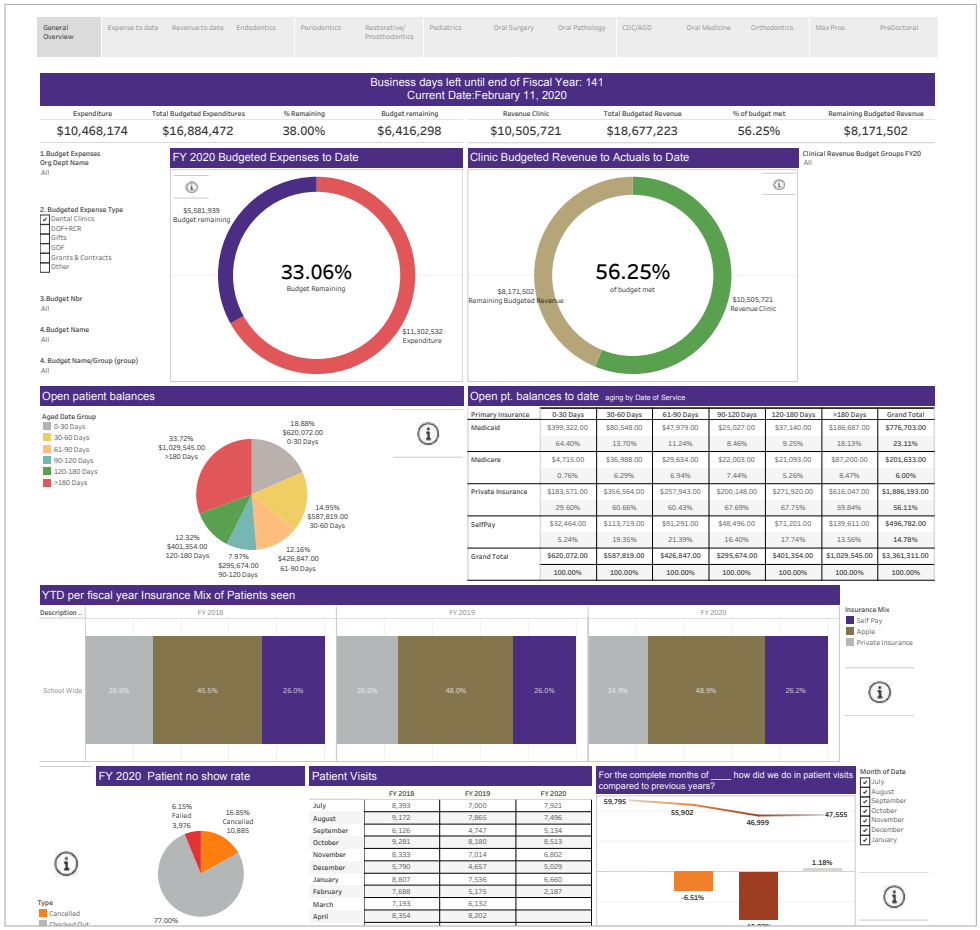
These internal audit findings support our observations that better billing and collections practices could help the School bring in more revenue.

# The School of Dentistry has many performance measures that align with leading practices, but still lacks some key information

## The School recently adopted new performance measures to help manage its clinics' financial performance

In December 2019, the School deployed new performance measures through dashboards that show schoolwide and department-specific data. These were developed in response to a 2018 consultant report by Deloitte that, among other things, recommended developing clear performance dashboards schoolwide and across clinics for both financial and operational measures. The dashboard also provides the university's Office of Planning and Budgeting direct access to the clinics' financial information. **Exhibit 10** shows a small portion of the School's new dashboard.

**Exhibit 10 –** The School's new performance dashboard includes several recommended measures




Source: School of Dentistry.

The School of Dentistry's new performance measures include:

- **Accounts receivable –** This measure tracks the age of the outstanding balances, broken out by primary insurance. It will give clinic staff more timely information about outstanding balances.
- **Patient visits –** This measure tracks visits by month for each clinic. Viewing monthly trends can help administrators plan for seasonal fluctuations (for example, visits typically drop off in December when students are away for winter break).
- **Unsigned treatment notes –** This measure shows how long unsigned clinic treatment notes have been outstanding, broken out by clinic and student type (for example, pre-doctoral students vs. post-doctoral students). It is useful because a treatment cannot be billed to insurance until the attending faculty member signs off on the student's treatment notes.
- **Medicaid write-offs –** This measure captures how much was written off for each clinic by month, drawing on the code billing staff use to indicate a Medicaid write-off. However, because this single code captures multiple reasons why a bill was denied and ultimately written off, it is insufficient to identify root causes.

We reviewed industry literature and interviewed officials at other schools of dentistry to determine if the School of Dentistry's performance measures aligned with other common practices. We also interviewed the School's department chairs and clinic administrators to learn what information they need to best manage their finances. In several areas, the School's performance measures align with the types of performance information other dental schools and industry literature recommended. For example, most other dental schools mentioned tracking patient visits and emphasized the need to track if treatment notes are signed in a timely manner.

## Some additional performance measures recommended by industry literature and other dental schools could allow the School of Dentistry to better manage its clinics' finances

Even with these new measures, the School of Dentistry still lacks performance measures related to collected revenue, clinic costs and productivity. Our interviews with School and clinic managers and other schools of dentistry, as well as a review of industry literature, identified five areas where additional performance measures could help the School better manage its clinic operations.

1. **Performance measures on clinical costs and staff productivity can help clinics maximize their resources.** Without an understanding of how much it costs to treat a patient, administrators cannot determine how much revenue they need to break even. Furthermore, knowing how productive students and faculty are allows administrators to determine if they can provide the treatments necessary to earn that revenue. The School of Dentistry's administrators said they need to know the average cost for

each clinic session, for each treatment, and for each dental chair. Industry literature suggests tracking the number of patients a provider can see daily and the number of dental procedures that can be performed during each visit. Other dental schools also suggest tracking the value of treatment provided for each dental chair in the clinic.

2. **Detailed information about why payment was denied can help identify process weaknesses.** The School of Dentistry grouped multiple root causes under one code for denied Medicaid claims. Chairs and administrators repeatedly said they want to see information on the specific causes for write-offs so they can change their practices and fix the problems. Eight of 11 other dental schools had related measures, including tracking write-offs by student or faculty member and tracking specific reasons for the write-offs.

3. **Performance measures for collected revenue can help ensure clinics can achieve their budget targets.** Nine of 11 other dental schools had performance measures related to the amount of revenue collected, including total collections by month, year-to-date, and year-over-year. One School of Dentistry department chair said the School lacked information on revenue actually collected compared to the amount that could have been collected; a group of dental schools has proposed using this as a common performance measure.

4. **Information on schedule availability can help maximize patient visits and reduce delays for treatment.** One department chair emphasized the difficulty of aligning schedules for students, faculty and staff. Without readily available information on student, faculty and staff schedules, clinics find it difficult to schedule patients efficiently and increase revenue. One interviewed dental school said it runs daily reports on student schedules to identify open time slots and fill them with patient appointments. This not only helps maximize clinic revenue, it also helps ensure students can meet their clinical practice requirements.

5. **Other information can help ensure clinic finances are on track and reduce unproductive clinic time.** Total clinic charges can also be used as performance measures, including monthly, year-to-date, and year-over-year measures. Other dental schools used performance benchmarks, such as a three-year average and six-year maximum, as comparison points for multiple performance measures. Dental schools can also use business intelligence data to track how many times students request assistance from attending faculty in clinic sessions, and how long it takes to respond to them.

For more information on the performance measures used by other dental schools, see **Appendix F**.

# Inconsistent use of clinic financial and productivity data contributes to the School of Dentistry's financial challenges

The School is led by the Office of the Dean, which includes administrative functions such as clinical accounting and billing. There are eight departments devoted to specific dental specialties, each led by a chair. Each department has had one or more clinics associated with it – and within the clinics are also individual programs and practices. Most clinics have their own administrators. Departments, clinics, programs and practices have their own budgets as well, resulting in 28 different budget reports within the School for fiscal year 2018.

## Expectations expressed by the Dean's Office are not reflected in budgets provided to clinic administrators

Inconsistent clinic budget information has caused confusion about administrators' available resources. For example, in the past, the Dean's Office maintained budget documents with "aspirational goals" that were not widely shared with clinic administrators. In fact, one clinic administrator told us she had never seen those budgets. Administrators cannot work towards goals they do not know exist, and if the Dean's Office and the clinics are working from different budgets they cannot effectively manage their limited resources.

Even today, clinic budgets as shown in the university's financial system differ from expectations at the Dean's Office. Clinic administrators said they had seen available funds in their budgets when faculty obtained outside funding to support a portion of their salaries, only to be told by the Dean's Office this was not the case. When they questioned the difference, the Dean's Office offered verbal guidance about the use of these funds, but the guidance was not reflected in the university's financial system, which contained the budgets the administrators used. According to the assistant dean for finance, one reason why this difference might arise is the Dean's Office tracks annual budgets while the financial system shows only biennial budgets. As long as verbal guidance from the Dean's Office conflicts with information in the financial system, clinic administrators may make spending commitments that conflict with other priorities or which the School of Dentistry cannot keep, risking further damage to its financial and reputational standing.

## To reliably project future income and expenses, the School of Dentistry needs information such as the average cost for providing each treatment

Although the School is making clinic budgets more transparent, the Dean's Office and some clinics continue to have different expectations and assumptions around the budgeting process. Clinic administrators want to work from budgets that consider a variety of factors, such as known challenges, forecasts of patient volume, and reasonable estimates of potential revenue. However, in the absence of the performance measures discussed on pages 29 and 30, such as the average cost for each treatment, the School has difficulty developing accurate and reasonable forecasts for its budgets.

## Clinics need to know how their activities influence the School of Dentistry's total costs for shared services, such as accounting and billing services

Clinics need to know how their activities contribute to overall shared service costs, which are one-fourth of all clinic expenditures. Shared services that support the entire School include accounting, registration and patient billing services. (These shared service costs are all internal to the School and are not overhead charged by the university.) In fiscal year 2018, the clinics paid almost $6 million for shared services, one-quarter of their $23.5 million total expenditures. During the same year, total clinic revenues were only $16.3 million.

School of Dentistry management wants to reduce total shared services costs and provide clinics information on how their activities affect those costs. To do so, they would need to analyze the cost drivers for the different shared service units, determine which costs are fixed and which ones can be controlled, and then work with department chairs and clinic administrators to determine which activities would be most cost-effective to control. Until this schoolwide effort is complete, and the information is readily available and frequently reviewed, clinic administrators will lack the information necessary to make different choices to reduce the total shared services costs paid by the School.

For more information on clinic expenses, see Appendix C.

## Clinic administrators are not always aware of existing performance and financial information because of inconsistent training

The School possesses a significant amount of untapped information which is available to individual clinics but not widely publicized or shared. For example, we found more than 20 available reports that were each used by only one of the School's clinic administrators. One reason for this is that many administrators

have created their own individual, ad hoc reports over time. Some administrators said they want information that administrators at other clinics already use. For example, one clinic administrator accesses an accounts receivable report from the School of Dentistry's electronic health records, while another administrator said her clinic has not been able to obtain a regular, reliable accounts receivable report from central accounting.

One underlying reason for this is a lack of consistent training, across the School, on the tools and reports that are currently available. Chairs and administrators attribute the lack of schoolwide training to a variety of factors: staff turnover, limited IT support to keep pace with changing requirements and expectations, four leaders in less than two years, several decades of clinics operating in silos, and a lack of standard operating procedures across the clinics to ensure that administrators and staff are using all available tools.

# Section Three. The University of Washington has improved its monitoring and oversight to ensure schools spend within their budgets, but could take further steps to reduce the risk of future deficits


## Summary

While the University of Washington gives its schools and colleges significant autonomy over financial matters, its Board of Regents is ultimately responsible for the university's financial well-being. The university has taken steps to improve its financial oversight and monitoring of schools and departments. However, gaps in the university's financial management processes and antiquated financial systems that enabled the deficits at the School of Dentistry remain. In addition, the university's training resources are insufficient to ensure department chairs are equipped for their financial responsibilities.


## The university has taken steps to improve its financial oversight and monitoring of schools and departments

### In response to the situation at the School of Dentistry, the university has strengthened two key oversight functions

The university's Internal Audit Office strengthened its follow-up process in direct response to problems at the School of Dentistry. In the past, the Internal Audit Office reported its findings to the Board of Regents, but there was no formal escalation process if deans did not implement their agreed-upon correction plans. Now, deans and other university leaders must report to the board if they do not implement audit recommendations within two years. This change was put in place after a 2011 internal audit of the School of Dentistry that identified 30 findings, three of which were unresolved for several years. The Internal Audit Office eventually decided the lack of response demonstrated that School management had accepted the risks posed by the issues in the findings. Given the School's significant financial issues in the years following the audit, the board, the president's leadership team and the Internal Audit Office created a formal escalation process to better ensure deans and other leaders fully address all audit recommendations.

The board and the university's Treasury Office also strengthened their protocol on how to respond when schools cannot repay loans with the internal lending program. This program provides schools access to funding for large projects, while allowing the university to better leverage its resources than if schools were to take out loans from private lenders. In 2015, the School of Dentistry could not comply with the terms of the loan used to establish the Center for Pediatric Dentistry. The original financing agreement stipulated if the Center for Pediatric Dentistry's revenue was insufficient to repay the loan, "principal and interest will be the responsibility of the School of Dentistry and the Office of the Provost." This resulted in confusion about who had primary responsibility to cover the loan payments. In 2015, the Board of Regents amended its debt management protocol to better define borrower responsibilities and clarify what would happen if a school could not make loan payments. The board also started requiring some loans to have covenants, which may include specific operating benchmarks such as cash reserve targets. Borrowers who fail to comply with these covenants must present a financial stability plan to the board for approval, with periodic reviews to evaluate compliance with that plan. The School of Dentistry established a financial stability plan in 2016.

## In addition, the university's financial departments now monitor all schools' finances more closely

The university's Office of Planning and Budgeting has improved its deficit monitoring protocol. The office began monitoring the schools' deficits in 2010 and established a written protocol at the time. However, the protocol lacked clarity on roles and responsibilities, consequences for deficits, and where decision making needed to occur to fully resolve deficits. In 2019, the office updated this protocol to clarify roles and responsibilities, including when a deficit resolution plan is required. Now the office requires a written deficit resolution plan for any deficit that cannot be resolved within 90 days; if the deficit cannot be resolved within three years, the office will charge interest. As part of strengthing the protocol, the office added it to the Administrative Policy Statements, which are the authoritative policies for the entire university.

The office also improved other tools it uses to monitor schools' finances. The office created a dashboard of deficits across the university which it shares with the president, provost, vice president of finance, faculty senate and other university leaders. If a college or school does not resolve a deficit, the office now has the ability to move funds within the school to settle the deficit using other school budgets. Furthermore, in fall 2018 the office began requesting four- to six-year budget forecasts from all schools, to help the office compare schools' expenses to estimated future revenues. The review includes projecting compensation and other expense increases against estimated revenues and determining the best use of limited university resources. This process provides early warning of projected deficits and includes review by faculty and student councils.

In addition, the university Controller's Office expanded its monitoring of schools' financial activities and budgets. Beginning in 2016, the controller has required annual reports from all colleges and schools to demonstrate their compliance with several financial requirements, such as reconciling their budgets on a monthly basis. The deans of schools that have not complied with these key control activities must meet with the controller to explain why. The controller also shares any concerns with the Internal Audit Office for consideration in future audits. Finally, the controller is working with the Office of Planning and Budgeting to ensure that the very small number of budgets that lacked formal oversight are nonetheless effectively monitored.

## Gaps in the university's financial management processes and antiquated financial systems that enabled the deficits at the School of Dentistry have not all been addressed

### The university's Treasury Office continues to rely too heavily on loan applicants' specialized knowledge, despite potential conflicts of interest

The university's internal lending program provides schools access to funding for large projects, while allowing the university to better leverage its resources than if schools were to take out loans from private lenders. The university's Treasury Office performs financial due diligence on borrowing plans, but sometimes lacks the necessary subject matter expertise to scrutinize the wide variety of projects undertaken by the various schools and colleges, and the specialized knowledge to ensure borrowers' assumptions are reasonable. When faced with this sort of situation, private lenders might hire a consultant to evaluate technically complex applications.

However, the internal lending program still depends on borrowers' specialized knowledge to help provide the necessary subject-matter expertise to evaluate risks associated with their projects. These borrowers have a vested interest in their loans being approved, so they cannot provide a truly objective and independent perspective. The School of Dentistry's pro forma to establish the Center for Pediatric Dentistry included unrealistic projections for patient volume and insurance reimbursement. The School shared the plan's assumptions with the Washington Dental Service and Seattle Children's Hospital. However, Treasury lacked the expertise in dental insurance and clinical operations to adequately challenge these assumptions, resulting in a program that cannot bring in enough revenue to meet its loan covenants.

## There is no authoritative guidance on how a financial stability plan should be developed, what it must contain and how compliance will be monitored

The core of any financial stability plan is a series of commitments towards actions likely to result in greater financial stability. At the university, when schools fail to meet certain requirements under the internal lending program, they must develop and present their own financial stability plans to the Board of Regents and report on their progress every six months. These financial stability plans are different from the deficit resolution plans required by the Office of Planning and Budgeting.

The School of Dentistry developed a financial stability plan in 2016 when it could not comply with its internal loan program commitments. This plan proposed achieving a balanced budget through revenue enhancements and expense reductions. These proposed actions included increasing the number of patient visits, increasing the number of self-pay and private insurance patients, consolidating clinic staff and limiting new faculty hires. When the plan was submitted to the board, faculty raised questions about its assumptions and ultimately the School's operating debt continued to grow.

While the university has detailed and authoritative guidance for deficit resolution plans, it has not developed similar requirements for financial stability plans. The existing guidance does not include any of the following directives:

- Who should create the plan
- What should be included in the plan
- Who should evaluate the plan's feasibility, and how
- Who should hold the school accountable for the plan, and how

Instead, current guidance only specifies the plan must be presented to the board, with periodic reviews to measure progress. This lack of authoritative guidance likely contributed to shortcomings in the School of Dentistry's plan, which did not fully address the root causes of the deficits. While the financial stability plan escalated the university's response, the School continued to operate at a deficit, and amassed an additional $10 million in operating debt during the next three years.

## The university is replacing its outdated financial management system, which has hindered effective oversight

The university's 50-year-old financial software system has hindered proper financial management. For example, the current system does not have the capacity to generate a basic income statement, or provide any sort of drill-down capability to look more closely at specific budget categories. To address these gaps, management and staff across the university have created numerous workarounds, which vary

from department to department. This makes understanding the university's already complicated financial picture even more difficult, as every school, college and department runs its own reports.

The financial system also makes it cumbersome for University Finance and the Office of Planning and Budgeting to see all overspent budgets. Schools have multiple budgets, some of which have restricted uses (such as grants that can only be used for specific purposes). These budget totals are often rolled up into a single number for reporting, so that positive amounts in some budget categories can hide a negative amount in another category, making it hard for university leaders to see if a specific budget is overspent. This systemic limitation allowed the School of Dentistry to spend $3 million more than what had been pledged by a private donor. University leaders could not easily see this deficit because the total gift budget was combined with other restricted categories that had surpluses.

In 2018, the university began a five-year project to upgrade its outdated financial management system. With the new system, the university expects schools to have improved visibility of their financial performance, allowing managers to rapidly access higher-quality and more accurate reports.

## The university's training resources are insufficient to ensure department chairs are equipped for their financial responsibilities

Within each school and college, many leaders play a role in sound financial management:

- Deans are responsible for all aspects of financial health for their schools or colleges. They must understand the school's financial situation and prevent deficits from occurring.
- Assistant deans oversee different aspects of a school's operations. If they are responsible for the school's finances, they oversee financial planning, creating and monitoring the school's budget, and devising related administrative processes, policies and procedures.
- Department chairs support a school's overall financial management by administering and overseeing department budgets, which can be substantial. For example, one School of Dentistry department chair oversees a total annual budget of $8.6 million and clinical operations across three different locations.
- Faculty oversee federal, industry and non-profit grants, many of which are over $1 million. In addition, faculty working in the School of Dentistry's clinics help ensure clinics can effectively bill for services by understanding how different types of insurance pay for covered treatments, following treatment plans and completing treatment notes in a timely manner.

- At the School of Dentistry, clinic administrators oversee staffing, finance, policymaking and patient care at their clinics. They also hire employees, create work schedules, oversee billing, draft budgets and implement policy changes.

The university has not focused on providing training resources for department chairs who have financial management responsibilities. However, school-level leaders such as department chairs are usually promoted for their academic expertise, not because they have strong financial- or people-management skills. This places department chairs in a difficult management role: They must manage department budgets and resources prudently, and supervise tenured faculty who were previously their peers. Without support to develop financial- and people-management skills, these leaders may not be equipped to succeed in their roles.

The university has historically made training resources available to new deans. It has not provided the same resources to new department chairs who also have financial and personnel management responsibilities. Furthermore, the university lacks a system to track whether faculty and staff have taken trainings, hampering the university's ability to ensure they take required trainings, or even to know who has completed a specific training.

## Some universities and programs have developed resources to help chairs develop their leadership and financial management skills

Many universities lack specialized training for their department chairs, but some universities and third-party partners have developed promising resources to address this gap. Both our literature review and interviews with four other public university dental programs demonstrated that many universities – in addition to the University of Washington – do not provide any training in leadership and financial management to their department chairs, even though this training is commonly seen as valuable. A 2016 national survey by the University Council for Educational Administration found that, despite their significant responsibilities, 67 percent of university department chairs reported receiving no formal training for their role. Nonetheless, we found three common types of training opportunities the university does not currently use and should consider:

- **Financial management and leadership workshops.** The most common form of leadership and financial management development were weekend- or week-long workshops. Some universities provided programs on their campuses, and several options were provided by third party for-profit and non-profit organizations. For example, the Chairs and Academic Administrators Management Program is a three-day workshop provided by the consulting firm AAL that includes group discussions, case studies, role-play and other interactive exercises, as well as presentations to teach financial management, conflict management and other leadership skills

to new or aspiring department chairs. The Association of American Medical Colleges and Council of Independent Colleges both offer similar workshops.

- **Peer-to-peer cohort development programs.** A less-common approach to leadership development is a training program designed for groups of academics entering leadership roles at about the same time. These programs typically last from several months to a year, and offer the advantage of networking with peers at a similar stage in their careers while learning about leadership techniques and financial management. For example, the Big Ten Academic Alliance developed the Department Executive Officers and Academic Leadership Program to support new chairs and emerging administrators during their first two years of service. This program offers a cross-college cohort experience to discuss topics and challenges with other administrators, and is designed to complement other resources available at the individual universities. Participants meet with leadership coaches and attend seminars with other members of the cohort.
- **Training libraries.** Some universities had reading lists or online resources that stored a variety of on-campus tools and training webinars. These dealt with specific topics relevant to department chair topics, such as "departmental budgeting" or "tenure-track evaluation." Other topics included broader leadership tools and techniques or financial management topics. Online systems can also provide accountability: the system can automatically track usage and completion for the university, and administrators can see which videos staff view most frequently.

## Other dental programs also have some tools to better hold faculty accountable

The School of Dentistry is not unique in struggling to hold faculty accountable for sound financial management, but there are tools in place at some universities that could serve as models. To learn how other universities address the gaps in accountability and financial management we identified on pages 38 and 39, we reviewed literature and interviewed officials at other dental schools with low Medicaid reimbursement rates.

Universities generally face a unique accountability challenge with faculty members serving in a clinical role. Faculty earn tenure based on their academic expertise, but when they step into a clinical role they gain responsibilities beyond this expertise. However, to ensure that faculty can be successful in all aspects of their jobs, universities must provide appropriate training and accountability measures that will work within the context of tenure protections.

The list below highlights some of the more frequently described methods.

- **Regular communication between administrators and faculty members.** Regular meetings helped departmental leaders talk about program expectations or goals and share relevant information. They also offered faculty members a forum to raise their own concerns or ideas.
- **Performance conversations can be framed through data.** Some dental schools tracked performance to identify individual employee behaviors that could be improved, such as delays in signing off on students' treatment notes. One was exploring ways to tie clinical performance to the merit review process.
- **Reviewing performance as responsibilities grow and change.** Another dental school was developing a formal performance review process of management and leadership skills for new department chairs, with the intent of identifying what training or mentoring would help their development as leaders.

## Section Four. The university and the School of Dentistry need a long-term strategy to reconcile competing financial, educational and service objectives

### Summary

The Board of Regents has the ultimate fiduciary responsibility for the university, and so must support university leaders and the School of Dentistry as they develop a feasible plan. The School lacks strategic direction balancing its financial responsibilities with its educational and service objectives. The university expects the School to break even financially. At the same time, the School depends on patients willing to accept longer treatment times so students can gain necessary experience. Most of these patients cannot pay the full cost of care. Also, while the School is not officially a safety net clinic, treating these patients meets its service objectives. In addition to addressing these strategic concerns, the School also needs to determine how much unpaid care it can realistically provide, and ensure faculty and staff work within set guidelines. Finally, the Board of Regents, university leaders and the School must develop a clear plan to address its long-standing financial liabilities.

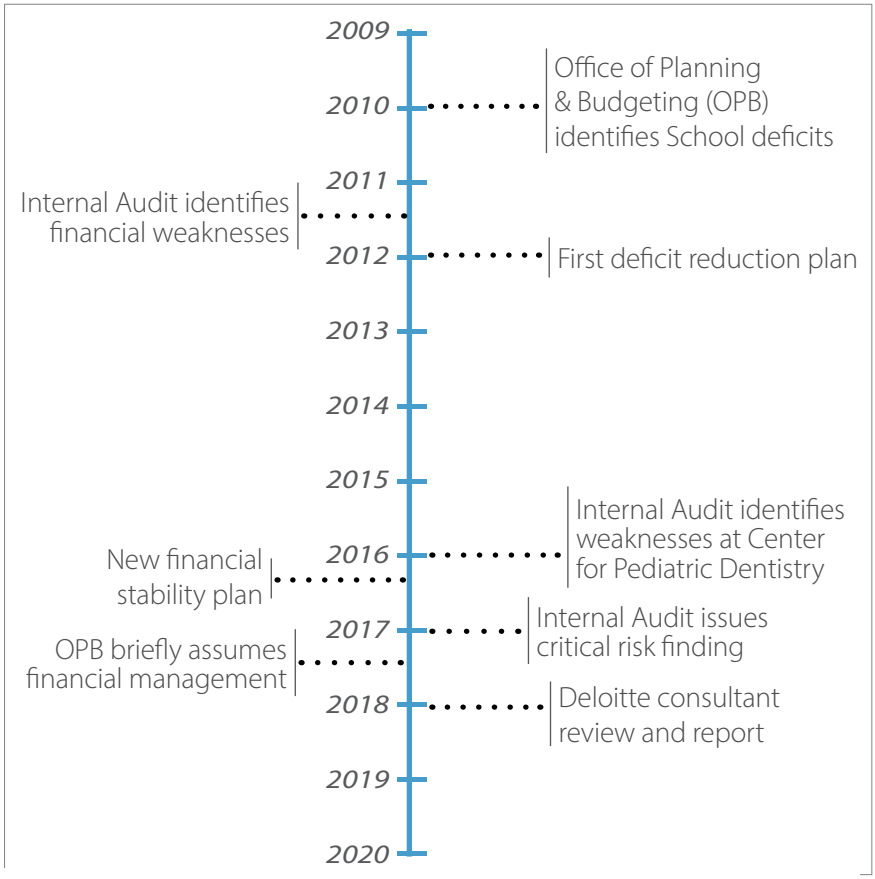
## The Board of Regents has the ultimate fiduciary responsibility for the university, and so must support university leaders and the School of Dentistry as they develop a feasible plan

The Board of Regents has the ultimate fiduciary responsibility for all the university's schools, including the School of Dentistry. State law vests the university's governance in the board. This power is further defined in the university's policies, which note the board has the power to "oversee financial resources and other assets." The board is thus ultimately responsible for the School's effect on the university's finances, and has a role to play in identifying a way forward. In practice, the board delegates much of its authority to the university president and provost, who work most closely with deans and other university leaders.

University leaders have attempted to address the School of Dentistry's financial challenges multiple times in the last decade. As **Exhibit 11** shows, these interventions have included audits, a financial stability plan, the Office of Planning and Budgeting briefly taking over key decision-making at the School, and a review by outside consultants. Despite these attempts to put the School on the right track, it still lacks a workable plan to address the long-standing financial challenges that are beyond its control.

## The School lacks strategic direction balancing its financial responsibilities with its educational and service objectives

**Exhibit 11 –** Multiple university departments have intervened at the School since 2009




Source: Auditor created.

The School of Dentistry must break even, despite a program model that depends on providing care to patients who frequently cannot pay the full cost. As part of financial responsibility, the university expects the School to break even – as clearly stated in university policy and as publicly and repeatedly stated by the board and the previous provost. To meet its educational objectives, the School depends on patients who accept longer treatment times so students can gain the necessary expertise to graduate. Most of these patients cannot pay the full cost of their care – either because they lack the funds or because they are covered by Medicaid – and the School meets its service objectives by serving as a safety net for these patients.

**While the School of Dentistry provides a significant amount of safety-net care, its mission statement does not clarify the extent of its activities as a safety net clinic, which hampers its ability to develop necessary policies.** Experts in providing safety-net care recommend that clinics serving as safety-net providers craft mission statements that define who they are and their reason for existing as well as their primary constituencies. A clinic's mission may be to provide care to all who seek it, regardless of ability to pay. Or, the mission may be to operate a self-sustaining clinic that serves patients covered by Medicaid and offers care at reduced rates for other

patients. This is an important step in business operations because different mission statements result in different policies.

While dental schools often serve as part of the safety net, none of the dental schools in our review had mission statements that clarified the extent to which they viewed themselves as safety-net clinics. However, some non-teaching dental clinics do have mission statements that provide this clarity. For example,

**The mission for Hope Dental Clinic in St. Paul Minnesota:**

*To provide dental care to those most in need, regardless of the ability to pay*

The University of Washington School of Dentistry's mission statement does not clarify to what extent it is a safety-net clinic, or suggest how it will balance the needs of its students, research and outreach programs together with the need to break even. The mission states:

*The School of Dentistry shares the University's overall mission to generate, disseminate, and preserve knowledge, and to serve the region. The School is an orofacial health care center of excellence serving the people of the State of Washington and the Pacific Northwest.*

*The School's **clinical** goal is to prepare students to be well-trained orofacial health care professionals. The School's **research** programs contribute to understanding biological, behavioral, social, biomedical, and clinical aspects of dental/orofacial health.*

*Through **service**, the School strives to improve the public's health through outreach programs with attention to minority and underserved communities.*

[From the School of Dentistry's mission statement, ***emphasis*** is in the original]

**Other dental schools use their strategic plans to establish the necessary goals and metrics to achieve financial sustainability while providing safety-net care.** One notable example is the University of Michigan dental school, which developed a new strategic plan in 2015. The strategic plan has specific goals and measures of success in five distinct domains, including both patient care and responsible growth/sustainability. Specific leaders are assigned stewards for each domain. The University of Michigan publicly reports progress on action steps, as well as annual updates to the strategic plan. The chief financial officer at the University of Michigan's dental school said it is trying to maximize revenue while serving the community by adding capacity for more patients covered by private insurance at its community clinic. This should help Michigan's dental school compensate for low Medicaid reimbursement rates. In addition, this school tracks the percentage of patients covered by private insurance compared to Medicaid as a key performance measure, and reports it monthly, by clinic, for managers to review.

By contrast, the University of Washington's School of Dentistry does not have an active strategic plan. The School's interim dean said he is working on strategic planning.

## The School of Dentistry needs to determine how much unpaid care it can realistically provide, and ensure faculty and staff work within set guidelines

The School not only lacks the clear direction for balancing financial responsibilities with educational and service learning objectives that a strategic plan could provide, it also lacks the necessary policies and procedures to achieve this balance. For example:

- Faculty members want to provide care that they know will not be paid for out of a sense of ethical responsibility. There is no policy for this charity care.
- Faculty members want to provide care that they know will not be paid for so that students have an opportunity to practice their skills. There also is no policy for this educational care.

Given the challenges inherent in providing safety-net care while adhering to a strict budget, any safety-net clinic must have clear goals and policies for every financial decision and all aspects of patient care, along with procedures and monitoring systems to ensure everyone follows the policies.

### The lack of policies for unpaid care prevents the School of Dentistry from quantifying how much of this care is provided and raising funds to cover its cost

Without clear policies regarding the provision of charity and educational care, the School cannot track or effectively manage this unpaid care. The School's clinic policy requires payment at time of service, including any potential co-payments. However, School officials provided examples of how students and faculty may provide patient care even when they know the School will not receive payment, and emphasized that patients will not be denied needed care because of inability to pay. By contrast, UW Medicine, which is composed of several medical centers, clinics and the School of Medicine, has a detailed charity care policy, which it uses in tandem with its billing and collections policy.

The School of Dentistry has not defined what constitutes medically necessary care, and professional judgments vary. If providers disagree with what Medicaid and private insurance will pay for and provide treatment they believe is medically necessary, the School will have to write off the cost of that treatment.

The audit reviewed one case that provides a specific example of this issue.

> *The patient had to have multiple damaged teeth extracted. At the time of this treatment, Medicaid would not pay for a related procedure to remove bits of broken teeth and smooth the jawbone after the extractions, which is intended to help patients wear dentures comfortably. This patient specifically declined the procedure because Medicaid would not pay for it and the patient could not or would not pay for it out of pocket. The faculty member nonetheless performed the treatment because he deemed it medically necessary. The School of Dentistry did not receive any payment.*

The School also lacks a systematic way to identify treatments that should be performed for educational purposes to give students a chance to practice a certain procedure, even if there is no possibility of payment. Furthermore, there is no schoolwide monitoring to ensure providers work within approved guidelines for the amount of unpaid care they are permitted to provide. The limited systems that do exist vary by clinic.

If the School could quantify the volume of charity care it provides, it could more effectively raise funds to pay for it, through philanthropy or additional support from the Legislature. The School officially requires payment at the time of service, and therefore does not have a system in place to track when charity care is provided, by whom, and how much it costs. Without data to show the volume of patients receiving unpaid care and the amount of associated lost revenue, the School cannot communicate the scope of this issue to important stakeholders like the Legislature and potential donors. Other dental schools have created separate funding sources to pay for this care. For example, students at the University of Iowa established their own fund to pay for treatments their patients could not afford. Now, when a patient cannot afford treatment, the dental student can fill out a form to request support from their fund. The Center for Pediatric Dentistry has a similar program called the Domoto Fund, which covers the cost of care for children without insurance, but it is not offered to patients at other clinics.

## The board, university leaders and the School of Dentistry must develop a clear plan to address its long-standing financial liabilities

University leaders, including the Board of Regents, must work with the School to develop a strategy that can realistically address its long-standing financial liabilities. While the School has made progress toward eliminating its annual deficits, it owes the university about $40 million in operating debt. Neither the School nor the university have proposed a plan for how to repay this outstanding debt in a timely manner.

The School of Dentistry has yet to generate a budget surplus, but even if it generated a $1 million annual surplus, it would still take 40 years to repay the outstanding debt. It also remains dependent on Medicaid to pay for patients' dental services, despite the low reimbursement that program provides. Only an active partnership with university leaders can help the School plan a resolution to these long-term liabilities.

# State Auditor's Conclusions

As a result of structural financial imbalances and poor business decisions, the University of Washington's School of Dentistry has accumulated more than $40 million in debt, which it owes to the university. Of equal concern to the accumulation of debt is the fact that the university allowed this to happen.

The university's Board of Regents has given its schools and colleges significant autonomy over their financial decisions. While there is nothing inherently wrong with delegating those decisions, the university's leaders and the board are ultimately responsible for the financial impact of those decisions. To its credit, the university has taken positive steps to help prevent situations similar to what happened at the School of Dentistry from happening again. However, the gaps in financial oversight, the antiquated financial systems and the lack of business training for department chairs identified in this audit show the University of Washington still has plenty of work to do.

# Recommendations

We make the following recommendations to University of Washington leadership to reduce the risk of future deficits at the School of Dentistry and other schools, and to the School of Dentistry to improve its financial situation. Our recommendations are listed in the suggested order of implementation.

## For the University of Washington

To develop a strategy to help navigate unresolved structural issues, as discussed on pages 43-47, leaders at the university and the School of Dentistry should work together to:

1. Determine the amount the university is willing to provide to support unpaid care at the School of Dentistry
2. Establish a feasible plan to address the School's $40 million accumulated operating debt, which it owes to the university

To develop better training resources and systems to ensure leaders with financial responsibilities have the tools they need, as discussed on pages 38-41, University Finance and the Office of Planning and Budgeting should:

3. Identify the best existing resources to develop and provide training for academic experts who are responsible for school and departmental budgets
4. Determine which roles throughout the university would benefit from financial management and leadership training, and track participation in recommended training

To address gaps in the university's financial risk assessment processes, as discussed on pages 36-37, the Treasury Office should:

5. Have an impartial external specialist review all financial projections for internal loans that exceed a certain dollar threshold and/or pertain to specialized services
6. Establish authoritative guidance for financial stability plans, including:
    a. Who should create the plan
    b. What should be included in the plan
    c. Who should evaluate the plan's feasibility, and how
    d. Who should hold the colleges and schools accountable for the plan, and how

## For the School of Dentistry

To address issues with billing and collections, as discussed on pages 23-27:

7. Determine what information about denied claims staff need to know to identify trends and fix the root causes of write-offs. Develop common definitions, as well as training and monitoring systems, to ensure this information is documented and tracked.
8. Depending on the key trends identified above, provide regular and consistent training to address the root causes. Develop a monitoring system to ensure providers and staff put this training into practice.
9. Implement all recommendations resulting from the Internal Audit Office report (reproduced in Appendix E)

To ensure faculty and staff can make the best use of available financial and productivity information, as discussed on pages 31-33:

10. Make an inventory of available reports and other resources
11. Provide training for staff on how to produce and use available reports and resources so that everyone knows how to take full advantage of them
12. Determine which reports and resources clinic administrators should regularly use to review their finances and develop procedures to guide them
13. Clarify information that is currently incomplete or misleading (such as mismatches between budgets and spending authorities)

To make best use of the Magnuson Park Clinic, as discussed on pages 19-20:

14. The Dean's Office should complete a cost-benefit analysis of options that could increase usage of the Magnuson Park Clinic to determine which has the most benefit for the School by December 31, 2020

As part of a long-term strategy to address competing financial, educational and service objectives, as discussed on pages 45-46:

15. Develop clear policies for charity and educational care, including under what circumstances such care may be provided, how much care can be provided annually and how students and faculty should document their decisions to provide such care
16. Develop procedures to ensure clinics understand and work within these policies

To develop additional performance measures clinic administrators need to manage and improve their financial performance, as discussed on pages 28-30:

17. Identify how the School can collect the necessary data, set appropriate targets, and report performance to all who need the information. The Dean's Office should work with department chairs and clinic managers, as well as IT staff, to identify the most useful measures and how to carry out these steps. The School should use the performance measures presented in Appendix F as examples when developing these additional measures.

# Agency Response

UNIVERSITY of WASHINGTON

*Ana Mari Cauce*
*Professor of Psychology*
PRESIDENT

March 11, 2020

The Honorable Pat McCarthy
Washington State Auditor
Insurance Building
Capitol Campus
302 Sid Snyder Avenue SW
Olympia, Washington 98504

Dear Ms. McCarthy,

The University of Washington (UW) appreciates the opportunity to respond to the Washington State Auditor's Office (SAO) performance audit, "University of Washington School of Dentistry: Improving Financial Health and Accountability." We wish to thank your dedicated staff for their thorough research, evaluation, and helpful recommendations, the majority of which are in the process of being implemented or which we plan to implement.

The UW's public mission, established in statute and enlivened by the University's faculty, staff and students, is to *preserve, advance, and disseminate knowledge*. In the course of executing this mission in our health sciences departments, we are faced with the challenge of balancing mission-specific imperatives, such as providing high quality and cost-effective educational opportunities for students with the fact that we have become the primary service provider for uninsured and underinsured Washingtonians. Balancing multiple public goods is a daily task. While we have not always effectively balanced in the past, please know our intent to serve the public good was, and remains, a priority.

As the report notes, few private dentists accept Medicaid patients, and our state's reimbursement rate for these visits is among the lowest in the country. Had our state reimbursed at even the 50th percentile or the median rate, our revenues would have been $11.2 million higher over the audit period alone. This structural resource constraint, coupled with optimistic patient volume projections, and a legacy financial system that has no integration with SOD's patient financial system, exacerbated the School of Dentistry's (SOD) financial problems.

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Despite these challenges, we are committed to stabilizing the SOD and have dedicated significant attention and resources to its further success. We are especially grateful for new leadership in SOD, and a renewed focus on patient care, student learning, transparency of financial data and objectives, and collaboration with the University's central administration and Board of Regents.

Our response to SAO recommendations is organized in three areas, responsive to both sets of recommendations to the UW generally, and the SOD, specifically.

I. Strategic Planning
   a. We agree that UW leadership, including SOD, should continue to work together to determine a feasible amount of support of uncompensated care. We look to our partners in state government to continue working with us to improve financial support for this care. We cannot continue to provide care for these patients without support. The SOD will engage clinical department chairs and graduate program directors to draft a definition and policy for the provision of charitable and subsidized care, tracking this care in its systems, and monitor actuals to planned activity in this space.
   b. While the Board of Regents has ultimate fiduciary responsibility for the University, the SOD operates in a dynamic environment of shared governance, whereby the faculty work with the administration to execute day-to-day operations of our clinics and departments. Partnership between faculty, academic leadership, and concurrence at the Board level, is key to our further success. Effective strategic planning in a shared governance environment entails collaboration between faculty, department chairs, academic leadership, the dean, the provost, and concurrence with the University President and Board of Regents.

II. Supplemental Training and Systems Upgrades
   a. We agree that supplemental training for all department chairs and academic leadership would allow for enhanced monitoring and better stewardship of resources. We devoted significant funding and resources to training and change management in our Finance Transformation program, and while go-live is July 2022, we are beginning to develop user profiles, stories, and best practices to ensure that individuals with financial responsibilities have the tools and education needed to perform these functions in our new system well.
   b. We agree with the general recommendations to provide regular and consistent training to address the root causes identified by the report specific to SOD. We would be happy to provide more information about these plans, as needed. We plan to develop a monitoring system to ensure providers and staff put this training into practice.
   a. Within the SOD, we will continue to provide ongoing education and training for department administrators on all report resources, including the key performance

indicators (KPI) dashboard and any meaningful reports in Axium. We have already provided extensive training on the use of the KPI dashboards.

III. Improved Due Diligence and Monitoring of our Progress to Plan

a. We agree that the Treasury should leverage outside expertise when evaluating loans requested by departments. Revenues projected to support the SOD's debt service in 2011 were developed in good faith and sincere, but ultimately unrealistic. With the benefit of time, we now understand how unlikely our base case pro forma assumptions were and now understand what should inform our assumptions moving forward.

b. We agree that the Treasury and Office of Planning & Budgeting should work together to evaluate loans as requested by schools, colleges, and campuses and compare the pro forma estimates of debt service coverage to long-term unit-specific financial forecasts. We agree that the procedures underlying the financial stability plan process could improve in both consistency and accountability. Significant work is already underway with University Leadership to strengthen both of these processes.

c. We agree that the SoD can improve its billing and collections work; set financial, and other targets with faculty and academic leadership, and publish these in dashboards to monitor progress. Significant work underway, includes:

- The SOD has made progress in analyzing and quantifying write-offs. The SoD's KPI dashboard provides adjustment code information for all clinical departments. There are 42 discrete adjustment codes; dollar amount of adjustments for each code is quantified monthly and discussed with department chairs.
- SOD will develop more detailed write-off codes; provide definitions and ready access to explanations for how and when they are to be used; update the waiver approval form; and, put it online for easy access. In addition, each write-off code will be sorted by those that represent preventable write-offs versus non-preventable. We will track and document trends in preventable write-offs by department and for the consolidated clinical enterprise; and this information will be shared with all faculty in regular faculty meetings and with unit administrators in their regular meetings with the Dean's Office finance and resource team.
- SOD will appoint a task group of faculty and staff who will report to the Dean to identify the primary data and reporting requirements that department, clinic, and unit managers need in order to effectively measure and monitor their organization's productivity and financial performance.
- We are already reporting, in one form or another, on nearly all of the performance measures identified by other schools in Appendix F. The task

group will identify the top measures the school needs to track as a grouping in order to effectively measure and monitor performance.

d. We agree that the Dean's Office should complete a cost-benefit analysis of options that could increase usage of the Magnuson Park Clinic to determine which has the most benefit for the School and will do so by December 31, 2020. As part of that work, the SoD will perform an internally directed cost-benefit analysis for the option of adding a faculty practice component at the Magnuson Park Clinic, including Saturday operations, as well as a site for clinical research.
e. We agree with all recommendations in Appendix E, and will be happy to produce more detail as needed.

Thank you again for your office's collaboration and careful review of our School, and the broader University climate for financial health and accountability.

Sincerely,

Ana Mari Cauce
President

Gary T. Chiodo, DMD, FACD
Dean, School of Dentistry

Richard Cordova
Executive Director, Internal Audit

# Appendix A: Initiative 900 and Auditing Standards

## Initiative 900 requirements

Initiative 900, approved by Washington voters in 2005 and enacted into state law in 2006, authorized the State Auditor's Office to conduct independent, comprehensive performance audits of state and local governments.

Specifically, the law directs the Auditor's Office to "review and analyze the economy, efficiency, and effectiveness of the policies, management, fiscal affairs, and operations of state and local governments, agencies, programs, and accounts." Performance audits are to be conducted according to U.S. Government Accountability Office government auditing standards.

In addition, the law identifies nine elements that are to be considered within the scope of each performance audit. The State Auditor's Office evaluates the relevance of all nine elements to each audit. The table below indicates which elements are addressed in the audit. Specific issues are discussed in the Results and Recommendations sections of this report.

| I-900 element | Addressed in the audit |
|---|---|
| 1. Identify cost savings | **No.** The audit did not identify cost savings. However, we did identify steps the School of Dentistry could take to reduce its billing write-offs, thus collecting more revenue. |
| 2. Identify services that can be reduced or eliminated | **No.** The School of Dentistry's programs are a question of academic curriculum and the responsibility of the School's dean and faculty. The audit focused on ways the School could address its financial challenges within its existing structure. |
| 3. Identify programs or services that can be transferred to the private sector | **No.** The School of Dentistry is part of the University of Washington, a public university established in state law. |
| 4. Analyze gaps or overlaps in programs or services and provide recommendations to correct them | **Yes.** The audit identified gaps in the university's governance structure that ensures schools operate in a financially sustainable manner, and makes recommendations to strengthen controls to address these gaps. |

| I-900 element | Addressed in the audit |
|---|---|
| 5. Assess feasibility of pooling information technology systems within the department | **No.** The audit did not assess the feasibility of pooling information technology systems. However, we did observe that limitations in the School of Dentistry's and university's systems have made it more difficult for the School to effectively manage its budgets. The university is updating its financial management system, which should fix some of these limitations. |
| 6. Analyze departmental roles and functions, and provide recommendations to change or eliminate them | **Yes.** The audit analyzed the roles and functions of School of Dentistry staff involved in billing and collecting payment for dental services. We found there has been lack of clarity and consistency in these roles, and made recommendations that the School make changes to ensure greater consistency across its departments and clinics. |
| 7. Provide recommendations for statutory or regulatory changes that may be necessary for the department to properly carry out its functions | **No.** The audit did not identify any statutory or regulatory changes that would be necessary to improve the School of Dentistry's financial situation. |
| 8. Analyze departmental performance data, performance measures and self-assessment systems | **Yes.** The audit reviewed the School of Dentistry's performance metrics and identified gaps between what the School measures and what other sources recommend measuring. |
| 9. Identify relevant best practices | **Yes.** The audit identified promising practices in literature and at other schools of dentistry for performance management. |

## Compliance with generally accepted government auditing standards

We conducted this performance audit under the authority of state law (RCW 43.09.470), approved as Initiative 900 by Washington voters in 2005, and in accordance with generally accepted government auditing standards as published in Government Auditing Standards (December 2011 revision) issued by the U.S. Government Accountability Office. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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**Public Records Officer**
(564) 999-0918, PublicRecords@sao.wa.gov

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# Appendix B: Scope, Objectives and Methodology

## Scope

The audit focused on identifying the key causes for the School of Dentistry's accumulated operating debt, things the School can do to improve its financial health, and ways the university can support its schools and hold them accountable for sound financial management. The audit period generally covered fiscal years 2012 through 2018, but we included information from fiscal year 2019 when it was available. Limited by our own resource constraints, the analysis for clinics other than the Center for Pediatric Dentistry covered fiscal years 2015 through 2018, and included only costs and revenues.

The audit did not review the quality of the School of Dentistry's education or clinical services. We also did not audit whether the School should change or eliminate any of its existing programs.

## Objectives

The purpose of this performance audit was to identify causes for deficits at the University of Washington's School of Dentistry, ways the School could improve its financial health, and ways the university can support its colleges and schools and hold them accountable for sound financial management.

The audit had the following objectives:

1. What were the key financial causes of the School of Dentistry's accumulated operating debt?
2. How can the School of Dentistry better use financial and productivity data to inform decision-making and improve financial sustainability?
3. How can the University of Washington improve its governance model to prevent and respond to similar financial management problems in other schools and departments?

For reporting purposes, the audit results have been organized into key findings. The messages relate to the original objectives as follows:

- The School of Dentistry accumulated $40 million in debt, which it owes to the university, due to both poor decisions and challenges beyond its control (pages 11-22). This finding addresses Objective 1.
- The School could expand its use of performance data to improve its financial health (pages 23-33). This finding addresses Objective 2.

- The University of Washington has improved its monitoring and oversight to ensure schools spend within their budgets, but could take further steps to reduce the risk of future deficits (pages 34-41). This finding addresses Objective 3.
- The university and the School of Dentistry need a long-term strategy to reconcile competing financial, educational and service objectives (pages 42-47). This finding addresses Objectives 2 and 3.

## Methodology

We obtained the evidence used to support the findings, conclusions and recommendations in this audit report during our fieldwork period (April 2019 to October 2019), with some additional follow-up work afterward. This section summarizes the work we performed to address each of the audit objectives.

### Objective 1: What were the key financial causes of the School of Dentistry's accumulated operating debt?

To answer this objective, we reviewed financial information for the School of Dentistry and its dental clinics. The School's associate dean for finance gave us a variety of reports that drew from data in the university's Financial Accounting System and Axium, which is the School's health records management system. We specifically reviewed the following data: the School's overall revenues and expenses; individual clinics' revenues and expenses; fees charged to insurance and patients for dental services; adjustments to fees for dental services because of contractual insurance write-downs and write-offs. To identify root causes for the largest category of write-offs, we reviewed a random sample of 45 write-offs coded as "Medicaid denied payment." These results are not projectable. We also reviewed student tuition and enrollment data from the university, as well as state funding data from the state's Office of Financial Management, and compared it to the general operating funds the university provided to the School.

***Medicaid reimbursement rate analysis***

To determine whether low Medicaid reimbursement was a key cause for the School's accumulated operating debt, we first reviewed available research on Medicaid reimbursement rates in different states. We used research from the American Dentistry Association's Health Policy Institute. These researchers used data from state Medicaid programs, private dental insurance reimbursement data, and data on the fees dentists charge for dental care to calculate each state's Medicaid reimbursement rate. They compared what each Medicaid program would pay for a sample of common treatments to what private dental insurance typically pays for the same treatments. We used this data to determine whether Washington's Medicaid reimbursement was significantly lower than other states'.

When we determined Washington's Medicaid reimbursement was significantly lower than other states, we calculated nationwide benchmarks for the 25th and 50th percentiles. We did this only for states that use fee-for-service Medicaid reimbursement, as Washington does, for 2013 and 2016, the two most recent years the researchers gathered data for. Then, using the School's data for dental fees charged to Medicaid, revenue received from Medicaid and contractual Medicaid write-downs, we calculated how much additional revenue the School could have received if Washington's Medicaid reimbursement rates were the same as the 25th and 50th percentile benchmarks.

***Clinic costs***

To determine whether the clinics' revenues can cover direct costs, indirect costs and allocated faculty salaries and benefits, we used financial information from the School of Dentistry. To confirm data completeness and accuracy, we corroborated that information with other independent sources. We calculated staff salaries by subtracting the identified faculty salaries from the total salaries. To estimate faculty and staff benefits, we distributed the total amount of benefits to faculty and staff proportionally to faculty and staff salary distribution.

## Objective 2: How can the School of Dentistry better use financial and productivity data to inform decision-making and improve financial sustainability?

To answer this objective, we interviewed officials in the Office of the Dean, as well as department chairs and clinic administrators, to learn what available performance information and reports they use and what they currently lack. We also reviewed literature specific to the dental industry and dental schools regarding performance measures for financial management. In addition, we interviewed officials at other dental schools about their use of performance information.

***Identifying other dental schools***

To identify other dental schools to interview about the performance information they use to manage their finances, we used the Dentistry and Oral Sciences section of the Shanghai Ranking's Global Ranking of Academic Subjects for 2018. We sought about 25 of the top-rated dental schools in the United States, and selected 27 American schools that were within the top 75 dental schools worldwide. We selected the top-rated dental schools to increase the likelihood of acceptance of the results, which are not projectable.

## Objective 3: How can the University of Washington improve its governance model to prevent and respond to similar financial management problems in other schools and departments?

To answer this objective, we reviewed the university's governance structure and related policies, and interviewed officials responsible for aspects of financial management and oversight, including: the Office of Planning and Budgeting, the Treasury Office, the Finance Office, Internal Audit, and the Office of the Ombud. Based on our documentary review and interviews, we developed a list of the various internal controls currently in place at the university to ensure prudent financial management at the university's schools, and any recent changes. We used the internal control framework published by the United States Government Accountability Office (Standards for Internal Control in the Federal Government, September 2014) to categorize the university's policies and processes. We did not use the framework as a compliance rubric. Instead, we reviewed the current system of key controls and identified gaps, weaknesses and potential recommendations. We interviewed officials at other dental schools and reviewed relevant literature to see how other institutions addressed some of these weaknesses.

***Identifying other universities***

In addition to the work described for objective 2, we also identified and requested interviews with 15 other universities with dental schools in states with relatively low Medicaid reimbursement rates. We selected these universities to identify guidance other dental schools may have received on balancing financial stability with provision of safety-net care. These results are not projectable.

## Work on Internal Controls

As part of objective 2, we assessed the School of Dentistry's internal controls over its clinics' financial productivity. We specifically reviewed the performance measures available to help monitor and manage clinics' finances and reviewed processes in place to ensure proper billing and collections. As we describe on pages 23-27, the significant deficiencies that still exist are mostly within the realm of monitoring and control activities.

As part of objective 3, we assessed the University of Washington's overall system of internal controls related to ensuring effective financial management at its schools. We considered all five components of internal control: control environment, risk assessment, control activities, information and communication, and monitoring. Significant deficiencies that still exist, as we describe on pages 36-41, are mostly within the realm of control environment, risk assessment and monitoring. The improvements we identified on pages 34-36 touch on all five components of internal control.

# Appendix C: Clinics' Financial Information

## Most clinics, practices and programs can cover direct costs, but struggle to cover faculty and indirect costs

The School of Dentistry's 18 clinics, practices and programs included in this appendix had the highest level of combined expenses during fiscal years 2015 through 2018, representing 95 percent of $86 million spent by the clinics. Two clinics shown in **Figures 1** and **2** represent 40 percent of all expenditures. The other clinics are listed in alphabetical order in **Figures 3a–3p**.

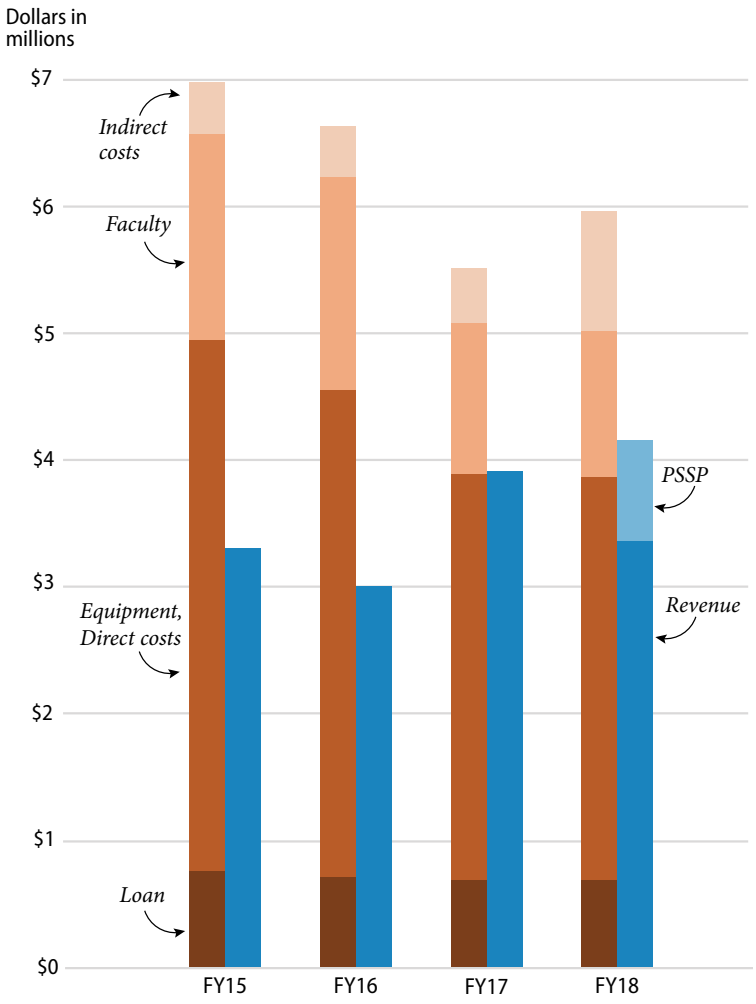
Clinics pay for direct expenses, such as supplies and staff salaries, and indirect expenses, such as the School's accounting team, as shown in the graphics below. Indirect costs paid by clinics are internal to the School, not related to the larger university's overhead. Indirect costs represented one-fourth of clinic expenditures in 2018.

The graphics also show clinics pay for faculty costs. The School pays faculty costs through both general operating funds (a combination of tuition and state funding) and clinic revenues. The School allocates faculty costs to the clinics when it exhausts its general operating funds. University and School leadership do not expect general operating funds to cover the entirety of faculty salaries, but no one has defined the proportion of faculty costs the clinics should bear, and the amount of faculty costs allocated to the clinics has steadily increased, from $3.4 million in fiscal year 2015 to $5.2 million in fiscal year 2018.

As discussed on pages 14 and 15, clinics began receiving Professional Services Supplemental Payment (PSSP) revenue in 2018. The graphics only show when clinics received at least $100,000 in PSSP revenue; smaller amounts are not reflected.

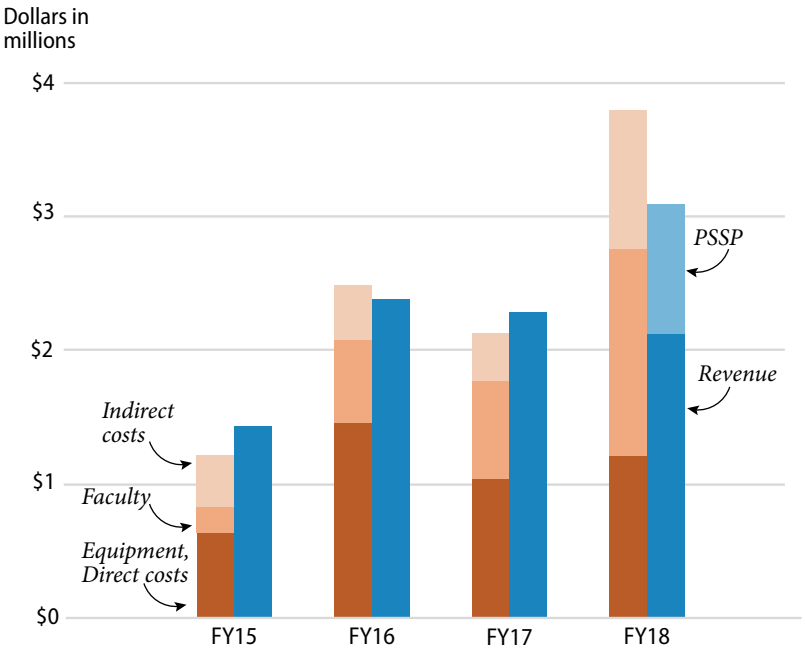
**Figure 1** – Center for Pediatric Dentistry

***Fiscal years 2015-2018, dollars in millions***



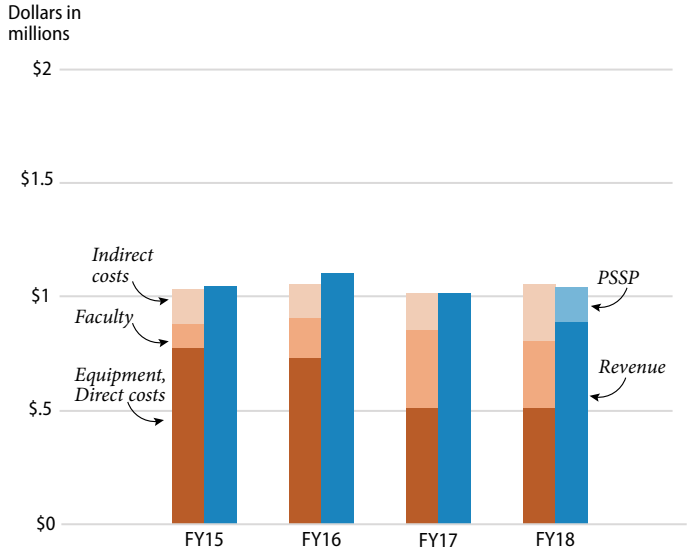

*Source: School of Dentistry financial reports.*

**Figure 2** – Oral Surgery, Faculty Practice, costs to revenue
*Fiscal years 2015-1018, dollars in millions*



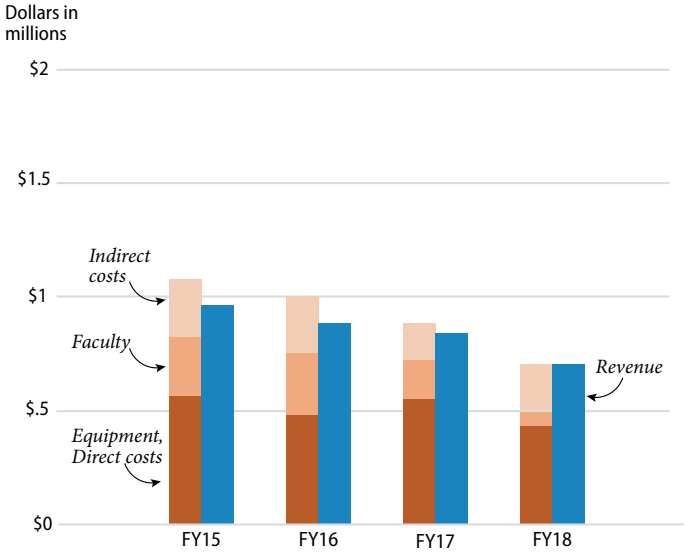

*Source: School of Dentistry financial reports.*

**Figure 3a** – Advanced General Dentistry, Faculty Practice, costs to revenue
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

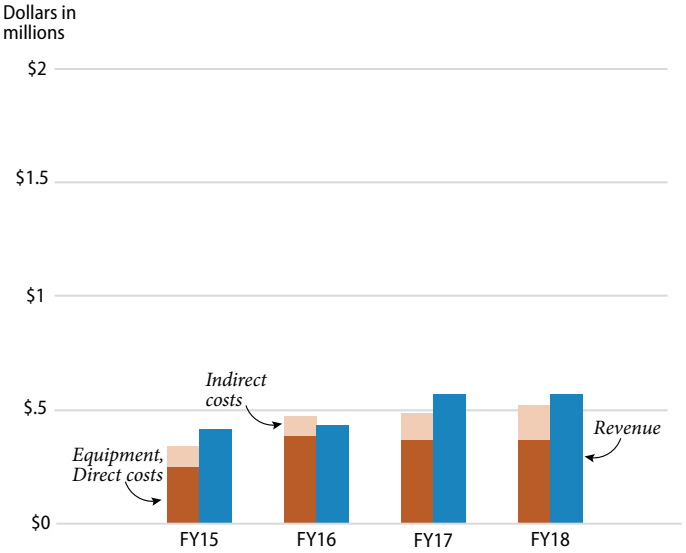
**Figure 3b** – Dean's Office, Faculty Practice, costs to revenue
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

**Figure 3c** – Endodontics, Advanced Degree Student Practice, costs to revenue

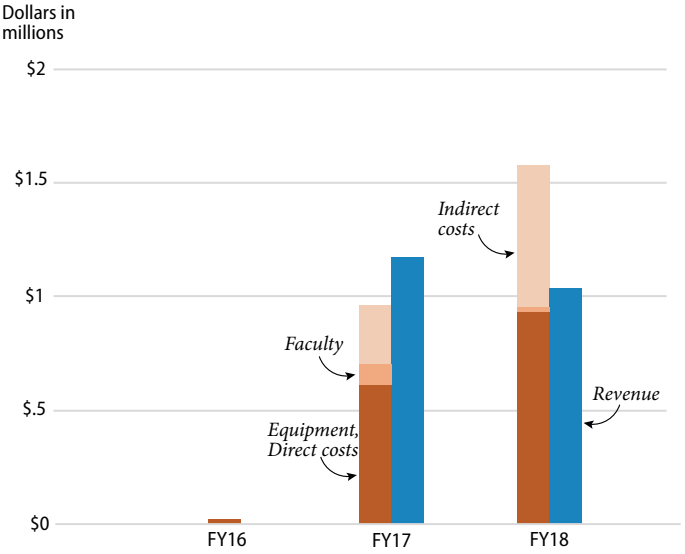
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

**Figure 3d** – General Practice Student Clinic, costs to revenue

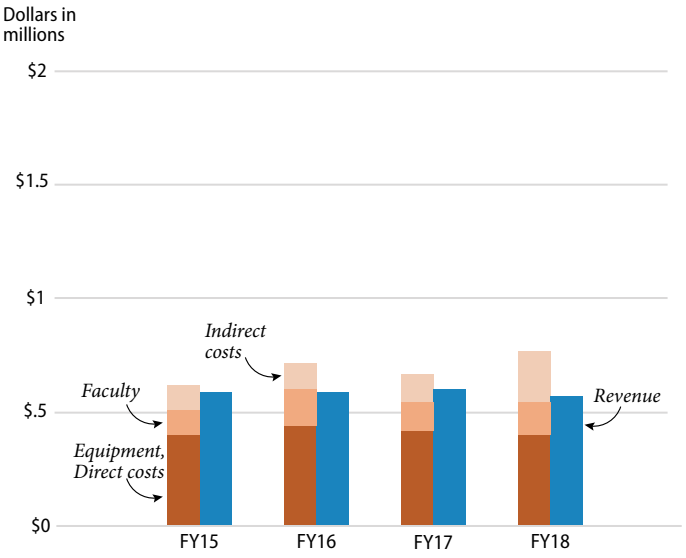
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

**Figure 3e** – Oral Health Sciences, Faculty Practice, costs to revenue

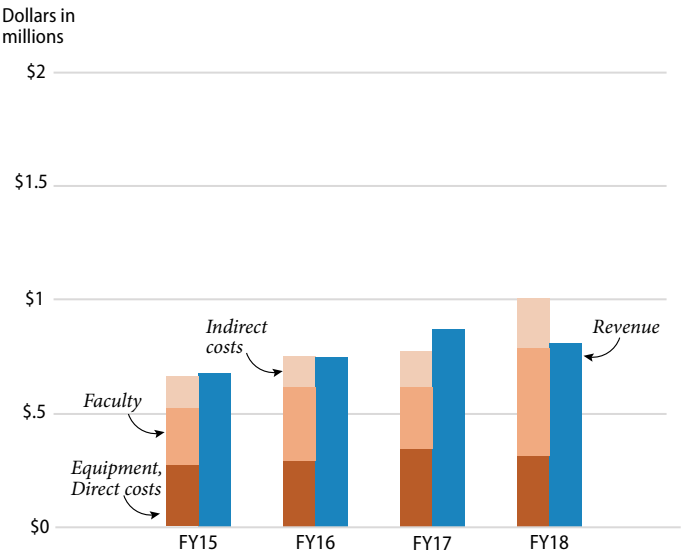
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

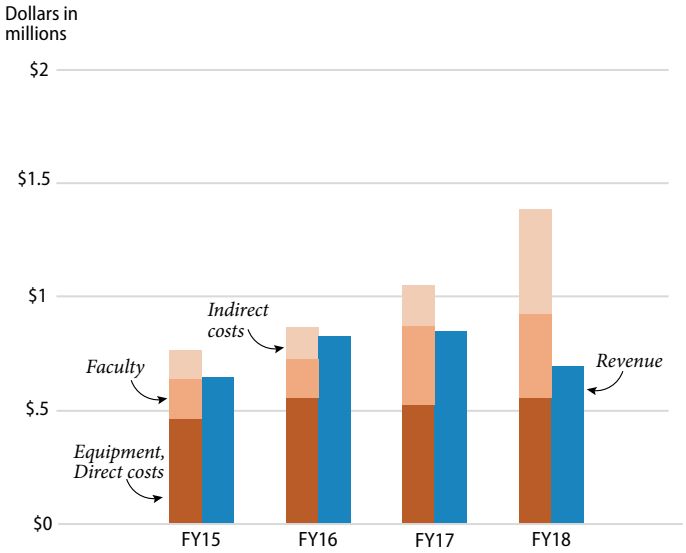
**Figure 3f** – Oral Medicine, Faculty Practice, costs to revenue

*Fiscal years 2015-2018, dollars in millions*



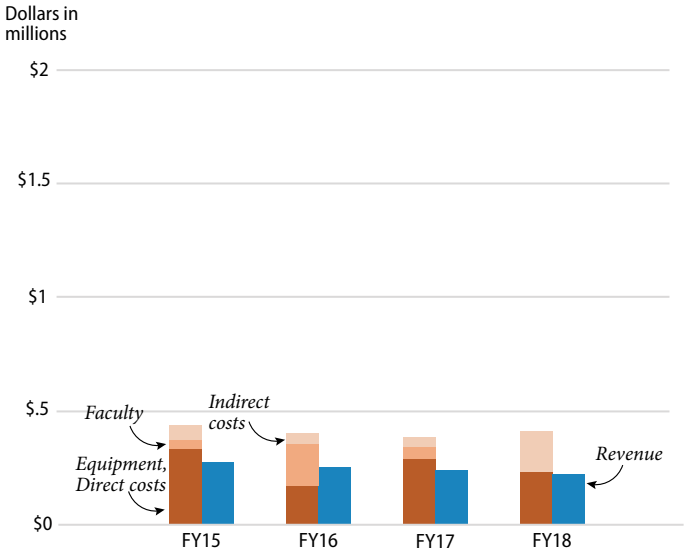

*Source: School of Dentistry financial reports.*

**Figure 3g** – Oral Medicine, DECOD, costs to revenue
*Fiscal years 2015-2018, dollars in millions*



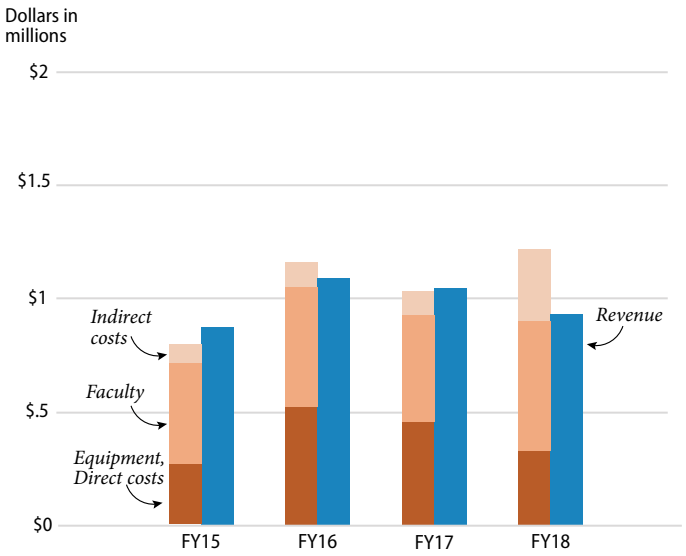

*Source: School of Dentistry financial reports.*

**Figure 3h** – Oral Medicine, Urgent Care Clinic, costs to revenue
*Fiscal years 2015-2018, dollars in millions*



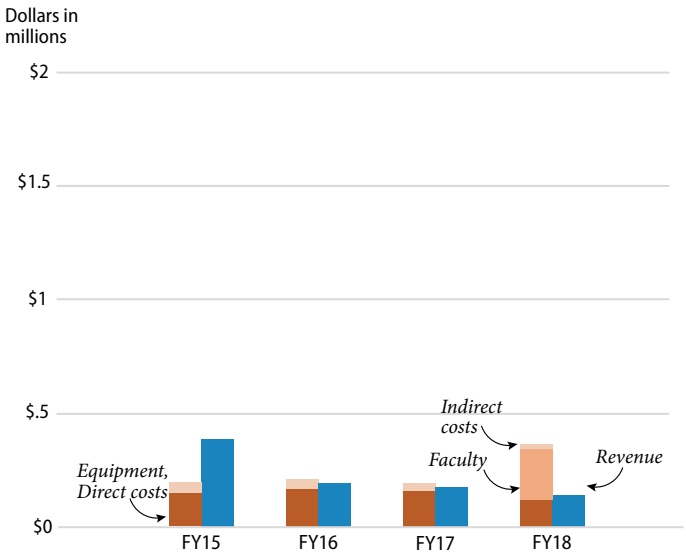

*Source: School of Dentistry financial reports.*

**Figure 3i** – Oral Pathology, costs to revenue
*Fiscal years 2015-2018, dollars in millions*



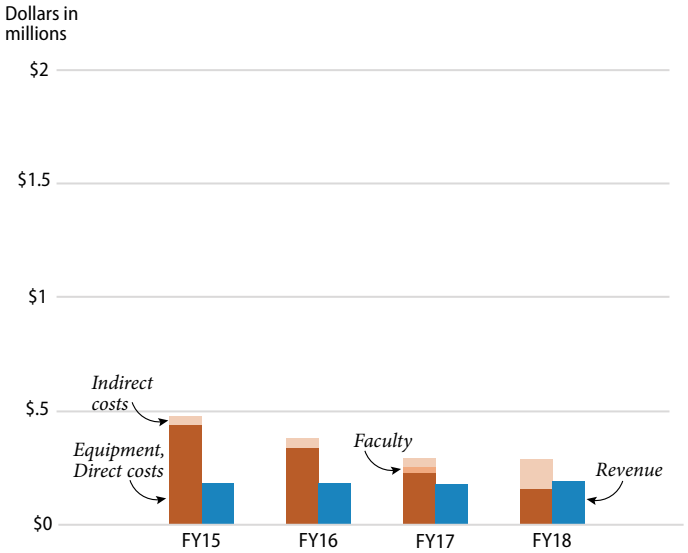

*Source: School of Dentistry financial reports.*

**Figure 3j** – Oral Radiology, Faculty Practice, costs to revenue
*Fiscal years 2015-1018, dollars in millions*



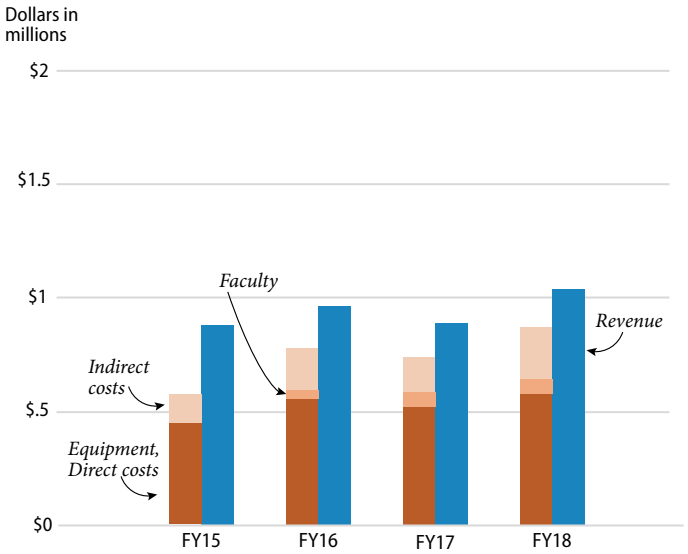

*Source: School of Dentistry financial reports.*

**Figure 3k** – Oral Surgery, DDS Student Clinic, costs to revenue
*Fiscal years 2015-2018, dollars in millions*



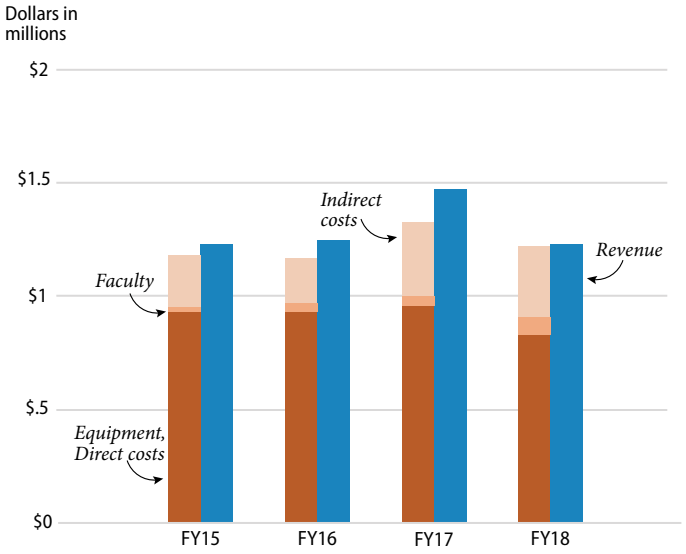

*Source: School of Dentistry financial reports.*

**Figure 3l** – Orthodontics, Advanced Degree Student Clinic, costs to revenue
*Fiscal years 2015-2018, dollars in millions*



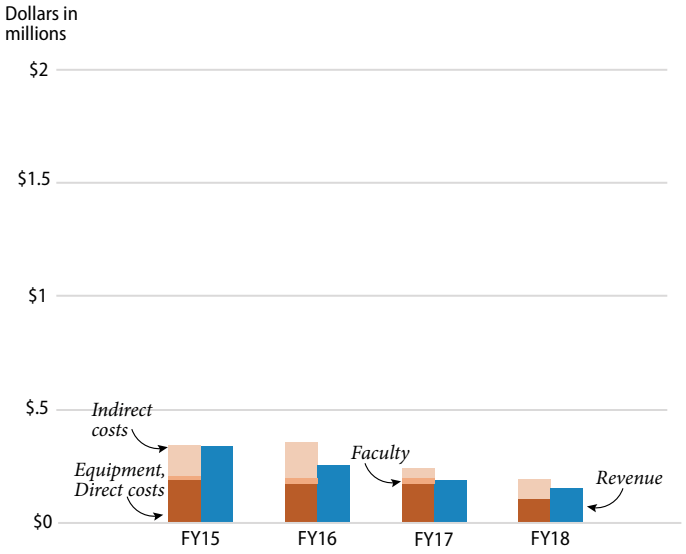

*Source: School of Dentistry financial reports.*

**Figure 3m** – Periodontics, Faculty Practice/Advanced Degree Clinic, costs to revenue
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

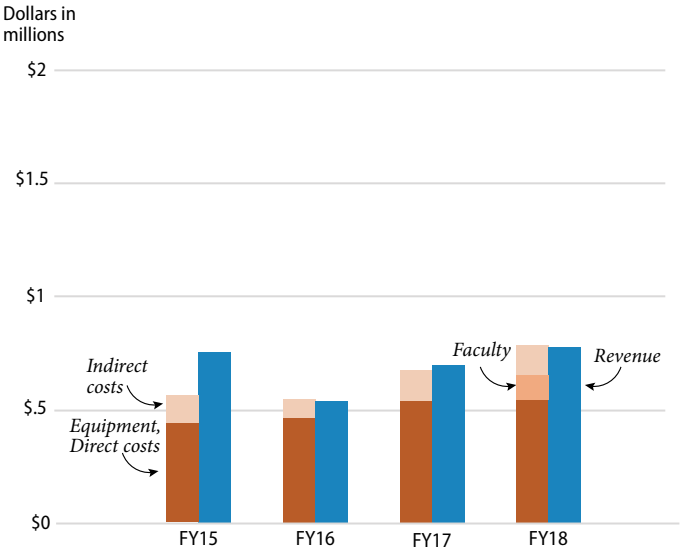
**Figure 3n** – Periodontics, DDS Student Clinic, costs to revenue
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

**Figure 3o** – Prosthodontics, Advanced Degree Student Clinic, costs to revenue

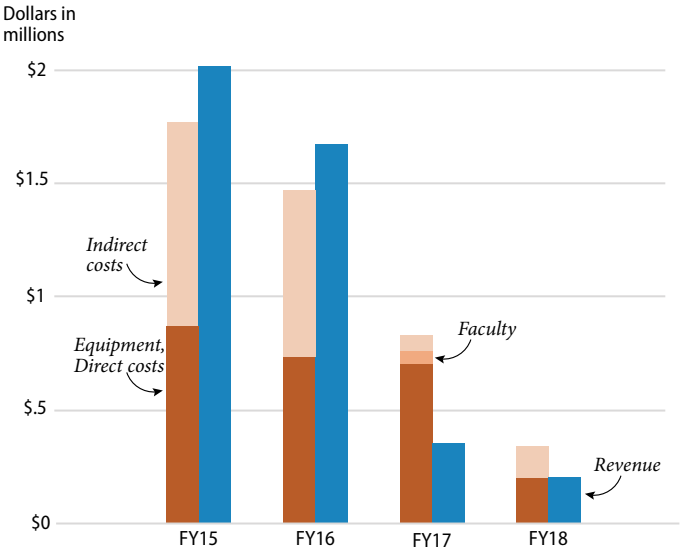
*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

**Figure 3p** – Restorative, DDS Student Clinic, costs to revenue

*Fiscal years 2015-2018, dollars in millions*




*Source: School of Dentistry financial reports.*

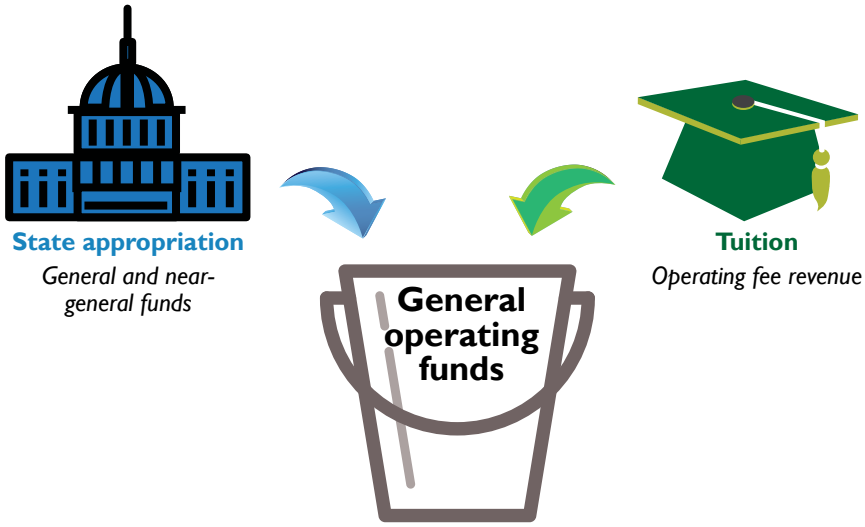
# Appendix D: Tuition, State Funding and General Operating Funds

The School of Dentistry almost doubled in-state tuition for first year students in the Doctor of Dental Surgery (DDS) program from 2011 to FY 2017, from $24,000 to $47,000. Tuition for out-of-state first year students was raised by nearly $22,000, and tuition for the advanced degrees increased by comparable amounts. At the same time, the School experienced significant deficits, which led to questions about how student tuition has been used. To respond to these questions, we reviewed tuition paid by students at the School and compared it to the general operating funds the university provided to the School.

## Contributions from general operating funds continually increased during the past decade

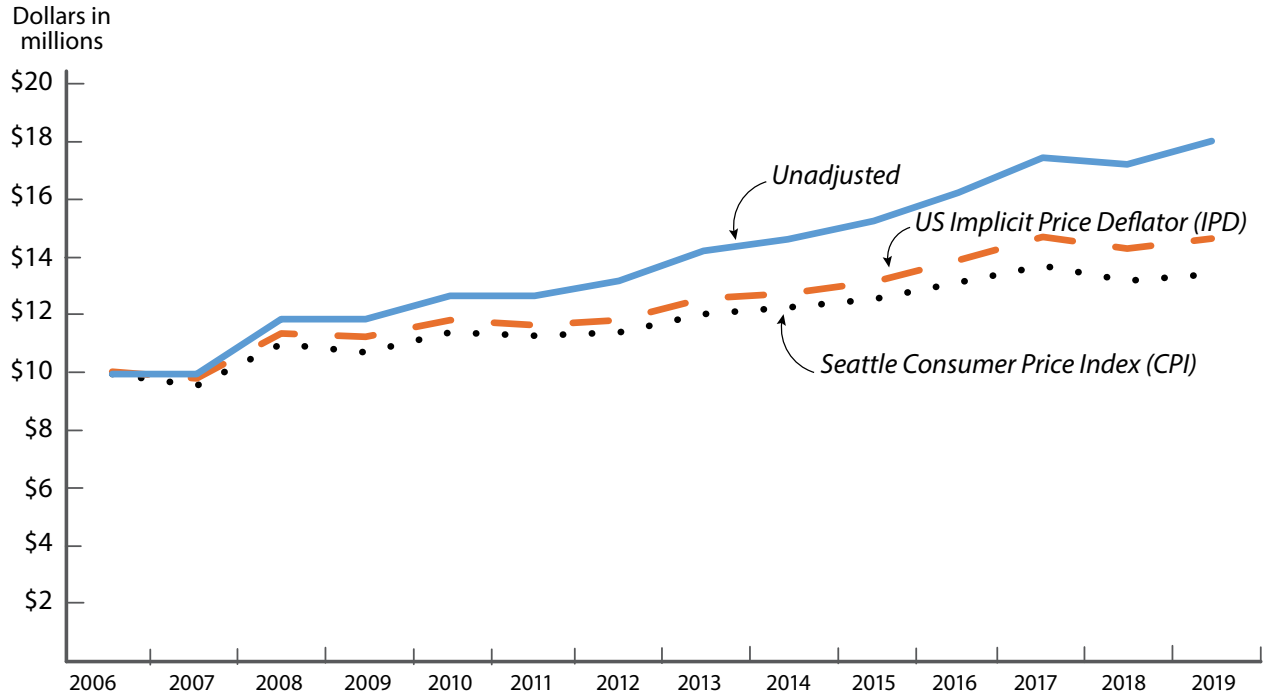
General operating funds combine tuition and state funding, so we looked at changes in all of these categories. The university provides general operating funds to schools to pay for instructional costs. As shown in **Figure 4**, the university combines tuition with funding provided by the Legislature and allocates it to the 16 schools and colleges based on a number of factors, including the amount of tuition (specifically the operating fees) charged to students at each school, historic budget trends and legislative mandates. Since the university combines tuition with state funding, we looked at changes in all three categories of funding to respond to the question what happened to tuition paid by students at the School of Dentistry.

**Figure 4** – The composition of the University of Washington's general operating fund



As shown in **Figure 5**, there has been a clear, upward trajectory in the amount of general operating funds the School of Dentistry received, even in the years immediately following the 2009 recession. When this funding is adjusted using different measures of inflation, the trend is still positive, though not as strong. Thus, contributions from general operating funds generally outpaced inflation until fiscal year 2017, after which it has been relatively flat.

**Figure 5** – General Operating Funds provided by the University of Washington to the School of Dentistry
*Fiscal years 2006-2019; Dollars in millions, unadjusted and two forms of 2006 adjusted dollars*



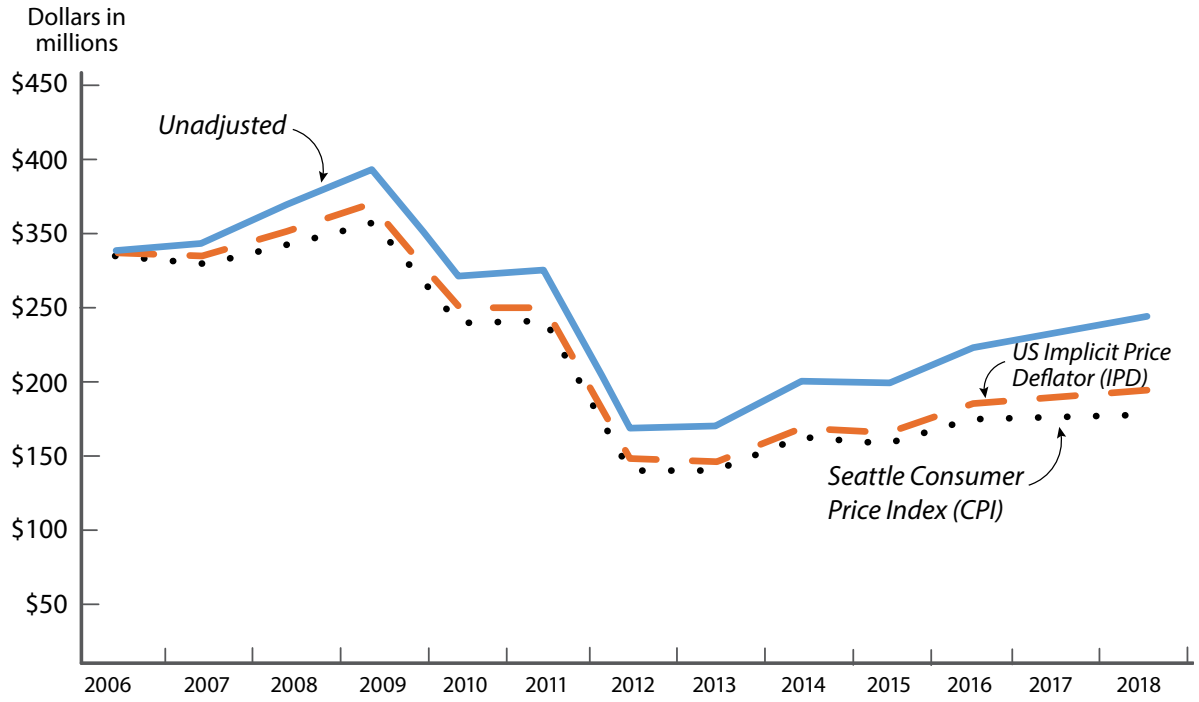

Source: General operating fund data from the School of Dentistry.

## After the 2009 recession, total state funding to the university for instructional costs was cut nearly in half, with student tuition filling the gap

The state provides several different types of funding to the university. Some funding can only be used for a specific legislatively designated purpose. For example, the Legislature gave the university $1.5 million from the Economic Development Strategic Reserve account to pay for costs at the Center for Aerospace Innovation Technology. Other funding is provided to pay for general instructional costs with minimal restrictions.

Tuition paid by students – at the School of Dentistry as well as other colleges and schools – has to some degree helped close the gap created by cuts in state funding. After the 2009 recession, total state funding to the university for general instructional costs was cut nearly in half. State funding has gradually increased beginning in 2014, but it is still well below its 2009 peak, as shown in **Figure 6**. The reduction in state funding to the university is even more pronounced when adjusted for inflation.

**Figure 6** – Total state funding for instructional costs at the University of Washington
*Fiscal years 2006-2018; Dollars in millions, unadjusted and two forms of 2006 adjusted dollars*




Source: Auditor analysis of OFM Expenditure Authority Schedules.

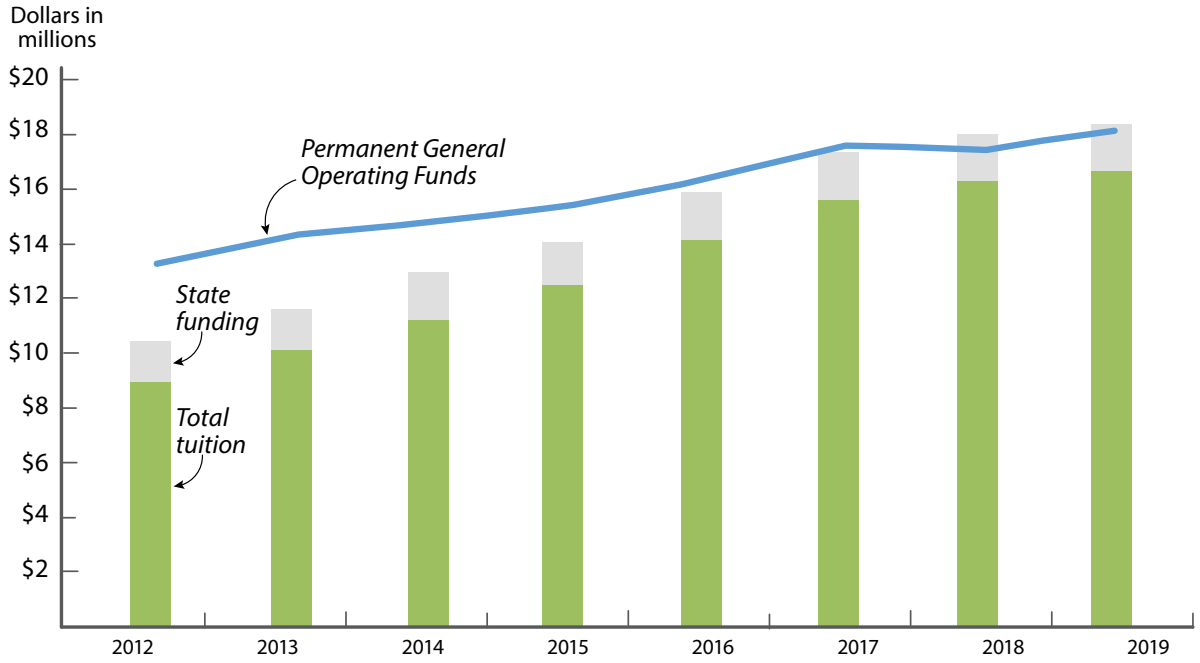
However, the percentage increase in total tuition charged to dentistry students was greater than the increase in general operating funds received by the School of Dentistry. From fiscal years 2012 to 2019, total tuition revenue from dental students increased by 84 percent, but the total number of students enrolled in the School remained flat, so the increase in total tuition was due to increased tuition rates. The amount of general operating funds received by the School increased by 37 percent over those years.

## Nonetheless, the university has subsidized the School of Dentistry for more than a decade

The university has effectively subsidized the School for more than a decade. For example, in fiscal year 2012 dental students paid $8.9 million in tuition; a proportional share of state funding would have been $1.5 million, for a total of $10.4 million. That year the university gave the School $13.2 million in general operating funds, essentially subsidizing the School by $2.8 million.

This support was not isolated to a single year. From 2006 through 2016, the Office of Planning and Budgeting consistently allocated the School of Dentistry more general operating funds than tuition paid by its students and a proportional share of state funding, because university leaders recognized it is difficult for any dental school to be entirely self-sustaining. Over time, this subsidy has decreased, and as **Figure** 7 shows, during the last three fiscal years, general operating fund money has roughly matched the value of tuition paid by dental students and a proportional share of state funding.

**Figure 7** – Permanent General Operating Funds provided by the University to the School of Dentistry compared to total tuition and state funding combined
*Fiscal years 2012-2019; Dollars in millions*




Sources: Auditor analysis of OFM Expenditure Authority Schedules (state funding), School of Dentistry financial reports (GOF funding), and tuition amounts provided by the UW Office of Planning and Budgeting, School of Dentistry enrollment information provided by School of Dentistry, UW enrollment information provided by the University of Washington.

In addition to the general operating funds shown above, the university is also in the process of making payments to the School for an additional $1.4 million for summer quarter tuition received during fiscal years 2012 through 2017. The university is providing this funding through a series of supplemental payments because during these six years the university did not disburse summer tuition through its normal process. However, during these years, the School of Dentistry and the School of Medicine both substantially increased the amount of instruction that takes place during summer months. The additional $1.4 million in funding is in recognition of this gap.

We determined a proportionate amount of state funding by comparing the number of students enrolled at the School of Dentistry with total enrollment at the university. However, the Legislature provides this funding for the general purpose of paying for instructional costs and the university is under no obligation to distribute it on a proportional basis. We excluded any state funding with a current legislative proviso or restriction. Although the university does recognize certain historic provisos as it distributes available funds, we did not consider those funds restricted for the purpose of our analysis.

# Appendix E: Internal Audit Recommendations

University of Washington Internal Audit Office released report 2018-034, "School of Dentistry: Financial Stability Plan – Revenue Cycle," in November 2019. This audit was conducted during our own fieldwork period, and identified similar issues. Included below are the recommendations the Internal Audit Office made to the School of Dentistry.

1. The School of Dentistry should formalize their policies and procedures over denied claims and appeals, and administrative write-offs that clearly define which offices are responsible for managing these processes. The policies and procedures should also include steps for researching and effectively documenting the work performed, and the process for filing appeals.
2. The School of Dentistry should develop a workflow document of the revenue cycle process that outlines the roles and responsibilities of each area throughout the process and communicate it school-wide for clarity.
3. The Patient Revenue Cycle Office should work with the School of Dentistry IT department to add a field in Axium to capture denial codes for denied claims entered into Axium manually, and to develop a report identifying all denied claims.
4. Additionally, the School of Dentistry should consider forming a denials management committee composed of various members of the revenue cycle teams (Patient Revenue Cycle Office, Clinical Accounting, Patient Registration, and clinics) for continual process improvement. The committee should use the new denials report to identify root causes for frequently used denial codes and provide additional training opportunities as needed to reduce the number of future denied claims.
5. Clinics should conduct thorough charge capture reconciliations to identify discrepancies in fee amounts prior to billing. Any deviations from the amounts in the fee schedules should be adequately supported in Axium with notes and relevant documentation.
6. Clinics should provide proper training to providers/residents/students on entering treatment codes in Axium and the billing discrepancies that can occur when treatments are not properly entered.
7. The Patient Revenue Cycle Office should establish limits over administrative write-offs. This may include prior approvals for designated write-off codes or limitations based on dollar thresholds.
8. Patient Revenue Cycle Office management should use the newly established report to perform post monitoring of administrative write-offs by staff.
9. The School of Dentistry should strengthen controls to ensure administrative write-offs are adequately supported in Axium with notes and relevant documentation, and in compliance with the School of Dentistry Collections Policy. Additionally, procedures should be documented to ensure staff are performing adequate research prior to the write-off.

10. The School of Dentistry should identify root causes for write-offs at the clinic or Patient Registration level for possible training opportunities. An escalation process should be developed for improvement within these areas.
11. The Patient Revenue Cycle Office should establish a periodic review process to review the administrative codes for any changes.
12. The Patient Revenue Cycle Office should establish documented guidance that provides definitions and instructions for use of each administrative write-off code.
13. The clinics should develop a process to review treatments that have an "in-process" status 30 days or more from the date of service to determine if the status can be change and/or treatments can be billed.
14. The School of Dentistry should review the CY2018 treatments that are still "in-process" and determine if they should be billed or cancelled if no further follow-up is needed.

# Appendix F: Other Schools' Performance Information

We asked 11 other dental schools about the performance measures they use to help ensure sound financial management. Although the specific measures offered as examples varied considerably, they can be grouped into several distinct categories, as shown in **Figure 8**.

**Figure 8** – Examples of performance measures used by other dental schools

***Note: * Indicates that the number includes several dental schools in the same conference group who are working on common performance measures to make comparisons across their schools easier.***

***YTD = year to date; YOY = year over year***

| Category of performance measure | Examples of measures used in this category | Number of schools using measures in this category |
|---|---|---|
| **Patient visits** | Visits by clinic, YTD and YOY | **10*** |
| | Number of visits per provider per clinic | |
| | Number of visits (3-year average, 6-year maximum) | |
| | Annual active patients | |
| | Number of unique patients seen | |
| | New patients by clinic, monthly, YTD, and YOY | |
| | Appointment cancellations and reasons | |
| | No-show rates, per clinic per month | |
| | Appointments kept and no-shows | |
| | Broken appointments as a percent of total | |
| **Payments and collections** | Collections YTD and YOY | **9*** |
| | Collections as a percent of net charges/production | |
| | Clinic patient revenues, monthly and YTD | |
| | Clinic revenue month to month and YOY | |
| | Net and gross clinic revenue by month, YTD, and YOY | |
| | Monthly clinic revenue budget to actual, YTD and YOY | |
| | Net payment month to month and YTD (3 year average, 6 year maximum) | |
| | Average charges/production and collection per appointment | |
| | Net charges/production | |
| | Accounts receivable by clinic, payor and provider | |
| | Accounts receivable as a percent of prior year net charges/ production | |

**Figure 8** – Examples of performance measures used by other dental schools, *continued*

| Category of performance measure | Examples of measures used in this category | Number of schools that used measures in this category |
|---|---|---|
| **Bad debt and write-offs** | Discretionary discounts, write-offs and re-dos month-to-month and YTD (total, frequency and average)<br>Bad debt by category (by month, YTD and YOY)<br>Amount written off vs collected<br>All bad debt and adjustments as a percent of total charges/production<br>Number of requests for refunds and reduced fees<br>Amount sent to collection agency by month | **8** |
| **Dental chair utilization and scheduling** | Students per chair and faculty per chair<br>Patient chair utilization<br>Average gross revenue per chair, by clinic<br>Net charges/production per chair, per clinic<br>Daily reports on students' open schedule time | 5* |
| **Operating margin** | Monthly net surplus or deficit by clinic<br>Operating margin by school and clinic | 4 |
| **Total charges** | Gross and net charges/production by clinic, YTD and YOY<br>Net charges/production per clinic, per visit, and per provider<br>Monthly charges/production | 3* |
| **Budgeting** | Budget to actual, by quarter or month<br>Monthly clinic revenue budget to actual, YTD and YOY | 3 |
| **Patient mix** | Visits per payor type, YOY (by clinic) | 2* |
| **Personnel ratios** | Faculty to student ratios | * |

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