OHSU Board of Directors Meeting

Thursday, October 25, 2018
1:30 – 3:20 pm

RLSB, Room 3A001
2730 SW Moody Ave., Portland, OR 97201

OREGON HEALTH & SCIENCE UNIVERSITY
BOARD OF DIRECTORS MEETING

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1:30 – 3:20 pm
RLSB 3A001

1:30 pm	Call to Order/ Chairman's Comments	Amy Tykeson
	President's Comments	Danny Jacobs, MD
	Approval of Minutes Sept. 27 **(Action)**	Amy Tykeson
1:45 pm	FY18 Audited Financial Results **(Action)**	Lawrence Furnstahl KPMG
	FY19 First Quarter Financial Results	Lawrence Furnstahl
2:40 pm	Final Report FY18 Indicators	Dan Forbes John Hunter, MD Peter Barr-Gillespie, PhD Elena Andresen, PhD
	Presentation of FY19 Indicators	Dan Forbes
3:00 pm	Supporting Faculty Wellness	Nathan Selden, MD Cort Garrison, MD
3:20 pm	Meeting adjourned	

Oregon Health & Science University
Board of Directors Meeting
September 27, 2018
RLSB, Room 3A002

Following due notice to the public, the regular meeting of the Board of Directors of Oregon Health & Science University (OHSU) was held at 1:40 p.m. in the RLSB Conference Room 3A002, 2730 SW Moody, Portland, OR 97201.

A transcript of the audio recording was made of these proceedings. The recording and transcript are both available by contacting the OHSU Board Secretary at 3181 SW Sam Jackson Park Road, Mail Code L101, Portland, Oregon 97239. The following written minutes constitute a summary of the proceedings.

Attendance
Board members in attendance were Wayne Monfries, Chair; Ruth Beyer, Vice Chair, Ana Brar, Amy Tykeson, Steve Zika, Stacy Chamberlain, Prashant Dubey and Chad Paulson dialed in via phone. Also present were Lawrence Furnstahl, Chief Financial Officer; Connie Seeley, Secretary of the Board; other OHSU staff members and members of the public.

Call to Order
Wayne Monfries called the meeting to order at 1:38 p.m**.**

Chairman of the Board's Comments
Wayne Monfries

Wayne Monfries welcomed everyone and said this is the first board meeting for Dr. Danny Jacobs, as president, and that he will have the opportunity to deliver his first president's comments. He said there will be a financial update from OHSU's CFO, Lawrence Furnstahl and a report on the University of Oregon/OHSU research partnership from Dr. Peter Barr-Gillespie, the Senior Vice President for Research. Additionally, he said there will be the annual report from the faculty senate by Dr. Derek Du Vivier, Faculty Senate President and also Tim Marshall, the Director of Audit and Advisory Services would be providing the annual integrity report.

Mr. Monfries mentioned what a great day it was to cut the ribbon to the opening, earlier that month for the Knight Cancer Research Building. He said it is a spectacular facility dedicated to the goal of ending cancer. He said the 320,000 square foot building has the capacity for 650 researchers and staff and its unique design will bring people together from different scientific disciplines with the goal of accelerating research progress. He said it was a fun day, but that it was also fun to remember how unlikely it all seemed just a few years back in the early days of the challenge. He mentioned OHSU couldn't get national philanthropy consultants interested in the campaign because nobody thought OHSU could succeed. He said it seems fitting, in the light of the generosity and vision of Phil and Penny Knight, to invoke Nike's latest tag line: "Don't ask if your dreams are crazy, ask if they are crazy enough." He said the opening of the Knight Cancer research building is a reminder to dream big and that it is another reminder of why OHSU holds a special place in the lives of all Oregonians. He then turned the mic over to Dr. Jacobs for his first inaugural president's comments.

President's Comments
Dr. Danny Jacobs

- ***First weeks at OHSU:*** *Dr. Jacobs spoke about road trips, meetings with various people and groups as part of his listening tour and spoke of the enormous support OHSU has statewide.*

- ***Crowd Sourcing:*** *Dr. Jacobs spoke of how crowd sourcing is a part of the strategic plan.*

- ***OHSU Hospital Ranks #1:*** *Dr. Jacobs mentioned OHSU ranked #1 in Oregon according to US News and World Report for 2018-2019.*

- ***Advances in blood pressure research:*** *Dr. Jacobs spoke about the advances in blood pressure research and the three dimensional structure of a membrane channel that is critical in controlling blood pressure.*

- ***OHSU partners with Oregon Symphony:*** *Dr. Jacobs spoke about how OHSU partnered with the Oregon Symphony and the world renowned soprano, Renee Fleming.*

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Approval of Minutes

Mr. Monfries asked for approval of the minutes from the June 28, 2018 board meeting. Upon motion duly made by Ana Brar and seconded by Amy Tykeson, the minutes were unanimously approved.

Financial Results
Lawrence Furnstahl

Lawrence Furnstahl presented an in-depth overview on the unaudited year end results for the fiscal year 2018 and mentioned KPMG is working hard to complete our annual audit.

Steve Zika commented what a tremendous financial performance OHSU has been doing. He said it is an incredibly difficult healthcare environment that is changing. He said OHSU has people that are trying to generate the revenue, provide quality care, and work on efficiency, so everything comes together to work. He said it is an incredible performance, but offered a note of caution. He said the healthcare environment is changing and costs are going up more than 3.5% to provide high quality care, teaching and research. He said this requires great people, who want to get paid. He said when you have costs that are escalating more than inflation, you have to do it year after year. He then thanked them.

Ruth Beyer asked if OHSU has to grow 5% a year, and does OHSU expect that 5% to come from the fact that Oregon has an aging population and it needs more healthcare, or is it taking healthcare patients from other institutions, or is it population growth. She asked what combination does OHSU have to achieve to get this 5% growth?

Lawrence Furnstahl responded saying OHSU starts with the healthcare GDP of the State of Oregon, which is about $40 billion. He said OHSU's $3 billion budget is roughly 8%. He said if you look at the healthcare GDP of Oregon over the last 25 years, it rose by about 7.5% a year nominal. H said that includes inflation and OHSU's revenues over 25 years rose by 9.5% compounded over that time period. He said OHSU gained market share in a very fast growing part of the economy. He said going forward we look at the economy of OHSU before inflation growing at 2.5% to 3% a year. He said then they look at healthcare expenditures still running at higher than GDP. He said the margin is shrinking somewhat but all the attempts to shrink that margin are being offset by several factors. He said one is technology, better coverage and then the aging of the population. He said in general we project 6% to 6.5% growth in that $40 billion healthcare economy of our state. He said all the facilities and programs across the missions of OHSU, from a financial modeling perspective, can be thought of as ways of making sure they secure their component of what is likely to be a decently growing healthcare GDP.

Wayne Monfries said the financial results are fantastic and the university community should be commended for its ability to pivot and adapt to Accelerate OHSU. He said the program is really more of a cultural shift in operating more efficiently. He said that culture starts from the top so Dr. Jacobs and Mr. Furnstahl and the leadership team changed that culture to help drive the results. He said the ability to get 5% growth is going to be challenging across a lot of different lines. He said the thing that OHSU controls is the culture of costs and spending and it is really important so that Accelerate OHSU becomes part of the way OHSU works and not something OHSU says.

UO/OHSU Partnership Report
Peter-Barr Gillespie

Peter Barr-Gillespie gave a detailed report on OHSU's partnership with the University of Oregon and how both are coming together and developing new research facilities.

Wayne Monfries asked how the teams come together from the two universities and how do they know each other within the institutions.

Peter Barr-Gillespie responded saying, to some extent, we know each other, and to some extent we don't and that is part of the problem. He said the summit that they had a year and a half ago was an opportunity to bring people together to find out the breadth of research focus at the two institutions. He said they both learned about each other in a variety of different ways. He said some of the initial collaborations were already in place, but others arose out of the current opportunity and that is where they are trying to target to get new interactions that wouldn't have taken place without a program like that. He said they would like to be able to use the program to facilitate more collaboration in the future

Amy Tykeson said that seemed like a wonderful Petri dish with the resources of law and business school at the U of O combined with the sciences at OHSU. She said that could really benefit the university and patient care long term, potentially.

Peter Barr-Gillespie, MD agreed and said the Knight campus at University of Oregon, had their marching orders from Phil Knight, to facilitate translation of basic science into actual benefit to society, whether it was medical, or mechanical. He said the goal was to bring the science that is taking place at University of Oregon to Oregon more widely and the opportunity to do that in the healthcare arena with OHSU was obvious.

Amy Tykeson asked what OSU's potential role in the process was. She asked is it primarily University of Oregon and OHSU, or is it all the universities in Oregon collaborating through the Knight Life Sciences in Eugene?

Peter Barr-Gillespie, MD said with this particular collaboration it is just with the University of Oregon. He said they already have ongoing collaborations with OSU and PSU. He said they have another pilot program with PSU with $300,000 total. He said there has been discussions about bringing all the institutions together and said they are headed in that direction, but said they need to do the first steps of making these comparisons first.

Ruth Beyer asked if these are modestly sized awards if they are $300,000 and asked if they are graduate students? She asked who the researchers are and where are the projects and the partnerships resting in academic hierarchy?

Peter Barr-Gillespie, MD said all of PIs are faculty members at each institution. He said there is at least one University of Oregon faculty member and one OHSU faculty member. He said there are graduate students doing the work and post docs, and technicians as well. He said they aren't large awards, but the enthusiasm about them is great.

He said another aspect of the collaborations is administrative and when you have two very large institutions that have their way of doing things, and you cross between those institutions you can run into enormous road blocks. He said part of the steering committee's job is to work on those administrative hurdles. He said there is a jointly appointed faculty member between OHSU and the University of Oregon. He said they have a memorandum of understanding now to handle intellectual property that arises. He said they have agreed to charge internal rates for research cores, which are important for research projects. He said educational activities are also underway. He said there is not as much progress to report as the other two areas, but they are discussing initiatives in a variety of different areas of interest,

He said they want to make sure that they are actually having a positive impact where the pilot projects and the research collaborations are. He said they are starting with the observation that they had in 2017, when there were 10 joint research projects submitted by OHSU and U of O. He said one of those was funded and that they want to double that in the next couple of years, which would mean if they assume a 20% success rate, they would get four joint OHSU/U of O projects awarded funding and moving forward. He said both presidents have already tentatively approved another round of pilot awards, so they want to use the experience they have with these first cohorts to decide how to design the next round. He said a goal might be ending opioid abuse in Oregon by 2025. He said that would bring in many different research groups with interests in opioid addiction and from basic science all the way up through law.

Amy Tykeson asked where the ideas are coming from. She said is it a bottoms up or top down in terms of trying to solve some of these bigger issues? She then asked do they decide between those and prioritize, and if it all equals in terms of the grants? She asked how they steer the ship towards what the end product might be.

Peter Barr-Gillespie, MD said OHSU has a lot of smart faculty who have a lot of interest in different areas which should bubble up the collaborative interactions and that's what the pilot programs address. He said, institutionally and strategically they can decide that something is really important to OHSU and Oregon, and to put money there. He said that is where the grand challenges come in and that's where they might have the top down approach. He said they are both important and doesn't think they can choose one over the other.

Amy Tykeson asked if they have the faculty person assigned.

Peter Barr-Gillespie, MD said it's not so much she is assigned as a joint faculty member but that her interests led her to get appointments at both institutions so she could do her human physiology work with obese pregnant women at the University of Oregon and a nonhuman primate model at the primate center where she is also conducting research.

Amy Tykeson asked who is responsible for the metrics and the outcomes. She asked if that going to be part of his role and counterpart at U of O?

Peter Barr-Gillespie, MD said he is responsible at OHSU and the Vice President for Research at U of O is responsible at that campus.

Amy Tykeson said that it sounded exciting

Ana Brar asked if there would there be additional funds made for the grand challenges.

Peter Barr-Gillespie, MD said they would have to discuss with Dr. Jacobs and Mr. Furnstahl whether there are funds for such a thing and they would have to be significantly more in order to be able to fund programs that really had an impact on the problems that they would want to solve.

Annual Report from Faculty

Dr. Derick Du Vivier

Dr. Du Vivier gave an overview of the Annual Faculty Senate report and the mission of the Faculty Senate.

Steve Zika asked about the strategic plan within the faculty senate and asked if it is long term or five year plan? He asked how it coordinates with the plan for the whole university.

Derick Du Vivier, MD said the idea of having a strategic plan for the faculty senate is something new. He said they are looking at a yearly plan, as well as a two-year plan with a simple goal to raise the awareness of faculty about the faculty senate. He said the one year plan is how they do that and that is why communication is an important part of their website and participation in the committees. He said if you look at the faculty strategic plan and you ask how it combines with the overall university plan then that is a difficult question to answer. He said it represents a lot of what is happening in academic medical centers where they are trying to define what faculty is, and how they function within an academic medical center. He said that is also how they fulfill all three missions of the center, the clinical, the research and the teaching. He said that is evolving and that is why they need to be participating in the overall university strategic plan. He said they are interwoven.

Prashant Dubey: asked what the badge configuration issue was? He asked what are the activities of the diversity advisory council, what is their approach and outcome focus?

Derick Du Vivier, MD said there were a couple of issues with the badge. He said one that was brought to the forefront by a number of female physicians was the overemphasis on the first name on the badge and concerns about gender bias where it is very difficult for female physicians to get the honorific doctor, dean and communication. He said they felt having that emphasis of the first name as opposed to doctor was just adding to what people felt was already a barrier to overcome. So, he said that was addressed. He said there were also issues in terms of the ability to place the gender identification pronouns on the badges.

Ana Brar echoed what Prashant said saying she would be very interested in hearing more about faculty diversity issues and what the progress is on that.

Wayne Monfries commented on Dr. Du Vivier's feedback with the board. He said they mentioned that they meet with the board biannually. He said there are two that are fairly close together. He said one of the things he would look at is spreading them out and capturing some other items as some of the board members have mentioned, in terms of discussion topics. He asked what he thought about that and just an overall interaction?

Derick Du Vivier, MD said he thought having them a little bit further apart would be great. He said that would come down to looking at the calendar and seeing how they can spread it across the calendar. He said generally the senate is in recess during the summer. He said they were not in recess this summer because they came together to continue working on the bylaws and said there was some manipulation of the calendar in order to facilitate a meeting before the budget presentation so they could get things on board. He said definitely they could spread it out a little bit.

Wayne Monfries said in the past what is looked at is before the budget, and then we've had it after the budget which is configured to address those concerns. He said as you are hearing from the board colleagues, there is a thirst to understand the other issues and things that the faculty senate and the faculty in general are experiencing and to get the feedback there. He suggested working together to get a good cadence of the meetings, as well as the topics that they put on there.

Derick Du Vivier, MD said they are all for interaction.

Amy Tykeson said the faculty is at the center of the three missions and she suggested that engagement of faculty is really fundamental to job satisfaction, contributions and feeling part of what's happening at the OHSU. She was curious about the metrics that the faculty and the senate use to determine the level of engagement across faculty, not just people that are on the senate, but just in general. She asked if that is left to the surveys, or does the faculty senate have particular metrics that are being used to evaluate the areas of opportunity to improve engagement, retention and other kinds of important initiatives.

Derick Du Vivier, MD said it is important to be able to define what is meant by engagement. He said they have used the faculty surveys. He said the first one came back with 75% response rate. He said it highlighted a lot of the feelings and concerns that the faculty had. He said they are still waiting to see what they are going to get out of the second faculty survey. He said if they connect engagement with burnout, there's a lot of work that is being done just now that the faculty senate is very interested in and that's why they had Dr. Seldon come and speak about many of the processes and programs that are going now to effect burnout. He said they don't have an ongoing metric to define engagement of faculty, but said it would be important to define what they mean by engagement.

Amy Tykeson said whether it is engagement or something else, she was curious in general of how they navigate through where they are today versus where they want to be in two years and then implementing improvements around the survey.

Derick Du Vivier, MD said to point of what she was saying is at the heart of it is communication. He said that is one of the biggest hurdles that they have to overcome is communicating throughout the university to various faculty. He said now they don't have a mechanism other than through a newsletter to communicate to the broader audience. He said Senators do have an opportunity to go out and communicate person to person, but right now the way the senators are apportioned, it's very difficult. He said units can be very disparate that senators represent, so one of the things they are doing is they are looking at that apportionment and trying to create a system that is easier physically for people to be able to communicate with their constituents, but then also working with communications through the web page and other ways to reach out to communicate to constituents.

Ana Brar asked for the results of the survey where they talked about obviously issues of faculty burnout, support of junior faculty and transparency. She asked when the results come out in the survey, are there particular sub-committees that are tasked with trying to address each of these individual issues, or how does the actual implementation of following up the results of the survey go about?

Derick Du Vivier, MD said they first pull that data out from that combined Press Ganey survey. He said they then do a comparative analysis between the first survey and the second survey to see where they are and if anything new has come up. He said then they work very closely with the office of the provost and with the president of the university to highlight the big target items that they need to address and how they are going to address those issues. He said now the senate does not have a concerted way to just go out and address issues. He said they are going to partner with administration to tackle these issues. He said that is one of the reasons why they know that burnout is a very important topic and that is why they had Dr. Seldon come in to give a talk, so they could understand what other people across the university are doing, what programs there are and to lend support and a platform for that work. He said it is critical that there be committees empowered to act on these concerns, the concerns that are very important to faculty, especially those that will come back up in the second survey. He said it is important you know, for faculty not only that their voice be heard, but that action be taken when their concerns are expressed.

Ruth Beyer asked when you get the survey results back, are you able to differentiate them by the different groups of faculty, such as, School of Nursing, School of Dentistry, School of Medicine?

Derick Du Vivier, MD responded saying that is what we are in the process of doing.

Ruth Beyer asked if they know instinctually, or by the data whether they see consistency on issues among those groups or do they see difference of views?

Derick Du Vivier, MD said if you look at the results that came out of the larger Press Ganey survey, many of the concerns are still very consistent with the concerns that were expressed overall by faculty in the first faculty survey. He said that because the first Press Ganey survey is all staff and doesn't really drill down specifically on the faculty, it was hard to say exactly what is in there. He said that is why they are in the process of pulling that out. He said he did not want to guess to what it would reflect, but said it is really important that once again they combine the first, look at the first, look at the second, look at what was done to address the issues in the first and how they got to the second results and what they can do moving forward.

Annual Integrity Report
Tim Marshall

Tim Marshall gave an update on the OHSU integrity program including a definition and the roles and responsibilities of the team.

Wayne Monfries asked is there a way they monitor the number of calls and how those items got closed.

Tim Marshall said they have a third party system called Ethics Point and that is the preferred third party vendor that many institutions use. He said there is an intake process to triage them. He said they are able to attach documentation and under certain statuses they are then able to update. He said when we close the review they are able to close the case, so everything is tracked through the system.

Wayne Monfries asked if there is Tuality compliance assistance in helping them to develop a plan. He asked if OHSU has one why wouldn't they just move that there? He asked would there be a need for something to be different?

Tim Marshall said they are leveraging the OHSU code and they are transforming it to what Tuality needs. He said Tuality is a much different environment than OHSU from a research and academic view so they are able to scale back a lot of things that are in our code, for OHSU, for Tuality's needs. He said they are working that way, but are certainly leveraging OHSU's existing code and will eventually have a code directly related to their environment. He said that is developing with Tuality management in the room and getting blessing from their team as well.

Ruth Beyer said thank you for reminding them of their primary responsibility themselves, to participate in setting a tone at the top. She was assured by much of what they presented and also to say that they do. She said that being committed to doing the right thing and also recognizing that reputations such as the one that OHSU has, which is excellent, are built over a long, period of time, but they can be destroyed in a day. She said the work that their group is doing to keep people attentive to these important issues, monitor, test and continue to message is great. She said she knows it's hard to message all the time on some of those things because people get dulled to hearing about integrity and ethics but that continued effort to try to find new ways to communicate the message and hold everyone to the high standard is really important. She thanked the group for all the work they are doing.

Tim Marshall said they appreciated that and they try to tweak things every year so it is a bit of a different flavor and a little bit of an opportunity to again educate and build that awareness.

Wayne Monfries made a comment that they talked about when Lawrence was discussing the budget and the culture that is driven through a budget discussion. He said we close with a culture that is driven through an integrity discussion. He said he couldn't be happier to say that in the first meeting with Dr. Jacobs, culture is there and that they are all very excited and proud because they brought in someone who can carry that flame for OHSU and the brand and drive a great culture. He welcomed Dr. Jacobs again and thanked all for joining. He said with that we will close the meeting.

Adjournment

Hearing no further business, Mr. Monfries adjourned the meeting at 3:12 p.m.

Respectfully submitted,

Connie Seeley
Secretary of the Board

FY18 Audited Financial Results and FY19 First Quarter Update

OHSU Board of Directors / October 25, 2018

Overview of FY18 Audited Financial Results

- In September, we reported unaudited results: FY18 operating income on a “budget basis” of $137 million, $37 million above budget and 6% higher than last year.
- Final audited statements confirm these figures, then add the following adjustments to a consolidated GAAP basis (see table on next page):
  - one-time revenues from the State grant and Knight gift to the Knight Cancer Challenge used for construction;
  - PERS pension / Other Post-Employment Benefits accruals under GASB 68 and 75;
  - consolidation of OHSU and Doernbecher Foundations; and
  - reclassification of State appropriations to non-operating income.
- KPMG will issue an unmodified (or “clean”) opinion on the FY18 financial statements, reporting no passed audit adjustments, no disagreements with management, no difficulties encountered, no significant deficiencies or material weaknesses, and confirming their independence (see KPMG presentation included after document).
- First quarter FY19 results continue above both budget and last year, with OHSU operating income of $40 million on 12% revenue growth. We expect performance to moderate as the year progresses, given start-up costs from CHH-2.

OHSU

Reconciliation of Budget Basis to GAAP Statement

Reconciliation of FY18 Operating Income (000)	Operating Revenue	Operating Expense	Operating Income	
FY18 results: Budget basis (unaudited)	$2,966,447	$2,829,459	$136,988	*$140,987 (Budget basis + Knight gift applied to capital, see page 8 of audited statements)*
Add: Knight gift applied to capital	3,999		3,999	
Add: State grant to Knight Challenge	116,085		116,085	
Reclass: Provider tax	49,600	49,600	0	
Add: PERS GASB 68 accrual		76,587	(76,587)	
Subtract: PERS / OPEB cash contribution		(38,524)	38,524	
FY18 results: Total University column	3,136,131	2,917,122	219,009	*See page 107 of audited statements*
Add: Foundations operating results	67,325	139,379	(72,054)	
Eliminate: Transfer from Foundations	(116,524)	(116,524)	0	
Reclass: Contributions for capital	152		152	
Reclass: State Appropriations	(37,026)		(37,026)	
FY18 results: Consolidated audit	$3,050,058	$2,939,977	$110,081	*See page 29 of audited statements*
	Investment income		90,823	
	State appropriations		37,026	
	Other nonoperating items		1,720	
	Consolidated net income		239,650	
	Capital contributions		3,053	
	Nonexpendable donations		16,981	
	Increase in net worth		$259,684	*See page 4 of audited statements*

Foundation Gains by Operating / Nonoperating

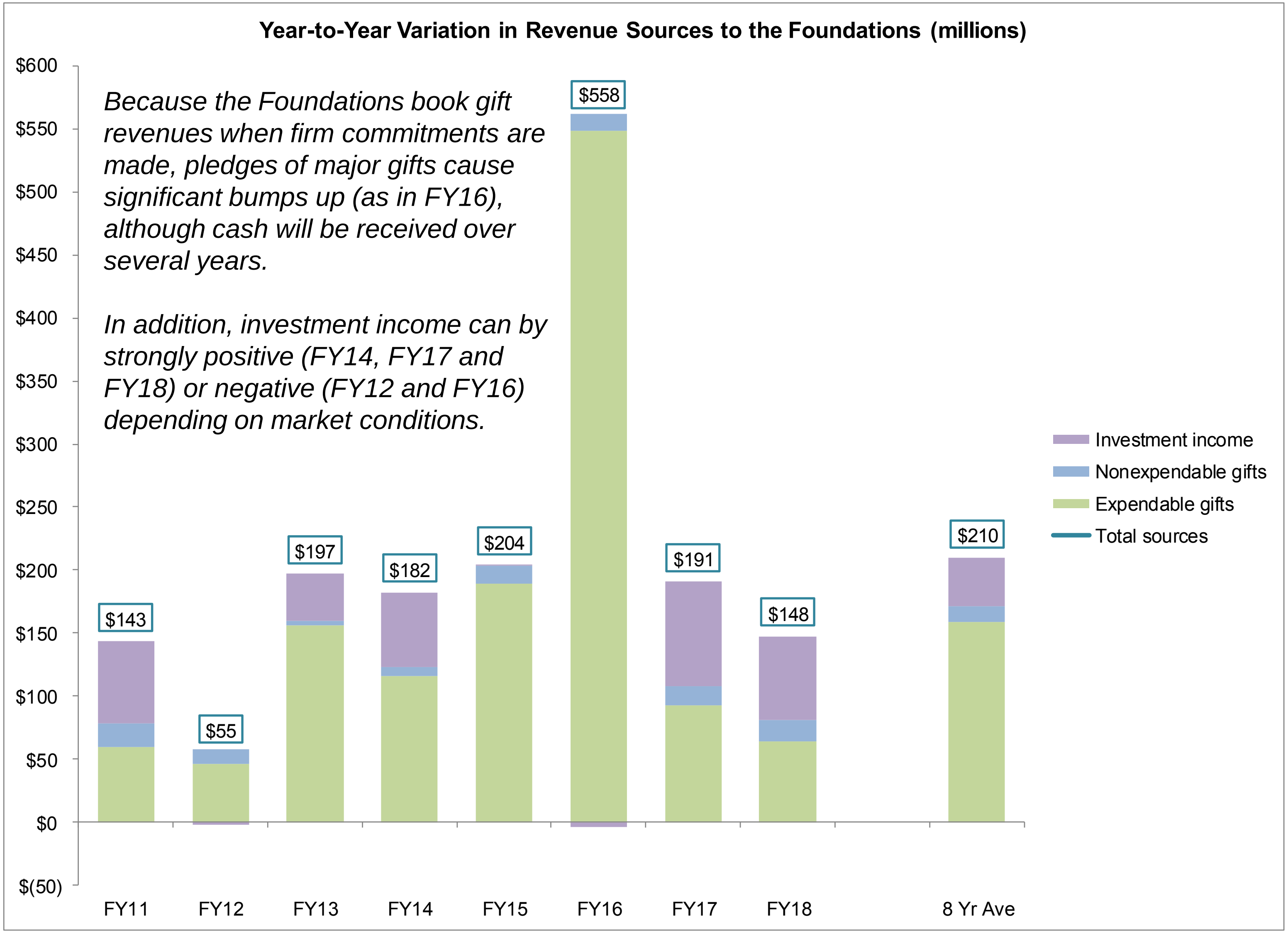
- OHSU's audited financial statements are fully consolidated with the Foundations. Page 107 at the back of the audited statements shows this consolidation on a columnar basis: Hospital plus Other University operations summing to Total University before consolidation, then adding the Foundations for consolidated OHSU.

- Foundation revenues are largely gift contributions and investment gains or losses. Expenses are mostly transfers to OHSU to support programs, plus fundraising and other support costs. The change in Foundation net worth can be positive or negative in any one year, given the flows of major gifts pledged compared to funds transferred for research, education and other programs, compounded by ups and downs in the stock and bond markets.

- Furthermore, some of Foundation revenues count "below the line" as nonoperating income: these include investment returns as well as gifts for endowment or plant. In FY18 for example, the $14 million net gain at the Foundations was composed of an operating loss of $(72) million offset by a nonoperating gain of $86 million that largely reflects investment income.

(millions)	FY16	FY17	FY18
Contributions	$561.8	$105.8	$80.8
Investment income	(3.4)	82.5	66.8
Other income, net	8.0	8.4	5.5
Program services	(122.2)	(121.0)	(120.1)
Supporting services	(20.4)	(18.8)	(19.3)
Change in Foundation net worth	423.8	56.9	13.7
Operating income component	377.7	(54.1)	(71.9)
Nonoperating component	$46.1	$111.0	$85.6

Year-to-Year Variation in Foundation Revenues



Key Credit Rating Metrics

- Management Discussion & Analysis section on pages 3 – 26 of the audited financial statements is intended to provide a "reader's guide" to some of the complexity of OHSU's consolidated statements.
- Readers of the MD&A include bond investors and rating agencies. They often look to several key financial ratios, including debt service coverage (measuring earnings compared to debt payments), days cash on hand (measuring liquidity scaled to size), cash to debt (measuring liquidity to leverage), and debt to net worth (measuring leverage to total financial strength).
- On these metrics, OHSU performs at a level between A+ and AA-, with liquidity being the challenge. Our AA- rating (up from BBB+ in 2010) also reflects OHSU's "institutional profile" as the State's public health sciences university and only academic health center, very strong fundraising, consistent growth and solid market position.

(millions)	FY16	FY17	FY18	3 Yr. Ave	S&P Range
Debt service coverage (higher is better)	6.33	5.61	5.54	5.83	AA
Days cash on hand (higher is better)	200	202	216	206	A+
Cash to debt (higher is better)	127%	127%	144%	133%	A
Debt to net worth (lower is better)	31.9%	32.4%	29.8%	31.4%	AA-
			Average of 4 metrics		AA- / A+

FY19 First Quarter Financial Results

- Based on the preliminary close, OHSU operating income through September is $40 million, approximately $20 million above both budget and last year, on 12% year-over-year revenue growth.
- Strong revenues reflect continued growth in casemix, surgical cases, ambulatory visits and pharmacy sales, combined with solid increases in grant and tuition revenues, plus the impact of enhanced Medicaid Intergovernmental Transfer (IGT) funds that started January 1, 2018:
  - These IGT payments for unique academic health center services reduce the loss on Medicaid, freeing funds to support research & education in Oregon's only public health sciences university.
- Administrative & support areas continue to hold spending below budget, consistent with Accelerate OHSU goals.
- Consolidated net worth rose $70 million in the first quarter on strong operations, completion of the State grant to the Knight Cancer Challenge, gifts for the Rood Family Pavilion, and investment returns.
- We expect financial performance to moderate as the fiscal year progresses, especially with start-up costs for CHH-2.

OHSU

FY19 Q1 Earnings ~$20M > Budget & Last Year

September YTD (3 months) (millions)	FY18 Actual	FY19 Budget	FY19 Preliminary	FY19 - Budget	FY19 / FY18
Net patient revenue	$495	$526	$540	$14	9%
Medicaid R&E IGT	21	28	28	0	32%
Grants & contracts	98	115	115	(0)	18%
Gifts applied	19	22	20	(1)	7%
Tuition & fees	16	17	17	1	6%
State appropriations	9	9	9	0	1%
Other revenue	33	37	46	9	40%
Operating revenues	691	753	776	22	12%
Salaries & benefits	418	445	454	10	9%
Services & supplies	207	241	233	(7)	13%
Depreciation	38	41	40	(1)	5%
Interest	7	7	7	0	-3%
Operating expenses	670	734	735	2	10%
Oper. income (budget basis)	21	20	40	21	93%

Aggregate Patient Activity Up ~5% from Last Year

OHSU Patient Activity September YTD (3 months)	FY18 Actual	FY19 Budget	FY20 Actual	Actual / Budget	Actual / Last Year
Inpatient admissions	7,256	7,348	7,269	-1.1%	0.2%
Average length of stay	5.91	5.90	5.99	1.5%	1.4%
Average daily census	456	456	475	4.1%	4.1%
Day/observation patients	9,601	10,157	10,415	2.5%	8.5%
Emergency visits	11,481	12,672	11,455	-9.6%	-0.2%
Ambulatory visits	230,027	242,926	238,454	-1.8%	3.7%
Surgical cases	8,732	8,939	9,098	1.8%	4.2%
Casemix index	2.19	2.20	2.25	2.3%	2.7%
Outpatient share of activity	50.1%	51.1%	51.4%	0.6%	2.6%
CMI/OP adjusted admissions	31,770	33,089	33,646	1.7%	5.9%
Gross charges (5% rate adjusted)	1,021	1,050	1,071	2.0%	5.0%
Patient rev. less tax (millions)	*$495*	*$526*	*$540*	*2.7%*	*9.0%*
Revenue per adj. admission	*$15,580*	*$15,883*	*$16,038*	*1.0%*	*2.9%*

OHSU

FY19 Q1 Cash Up $62M with Net Worth Up $70M

Balance Sheet (millions)	6/30/18	9/30/18	Change
Operating cash & investments	$926	$987	$60
Quasi-endowment funds	94	96	2
Moda surplus note, net	34	34	0
OHSU cash & investments	1,054	1,116	62
Trustee-held bond funds	43	16	(27)
KCRB project fund	8	4	(4)
CHH-2 project fund	11	0	(11)
Total cash & investments	1,115	1,136	21
Net physical plant	2,009	2,039	30
Interest in Foundations	1,388	1,384	(3)
Long-term debt	(1,002)	(983)	19
GASB 68 pension items, net	(327)	(327)	0
Working capital & other, net	184	187	3
OHSU net worth	3,367	3,437	70

Oper. income (budget basis)	40
Knight Cancer Research Building	6
OHSU investment return	13
Gain (loss) from Foundations	(3)
Grant & gift funded capital	14
Other non-operating items	0
Total change in net worth	$70

FY19 Cash Flow (millions)	Sep YTD
Oper. income (budget basis)	$40
Knight Cancer Research Building	6
Depreciation	40
OHSU investment return	13
CHH-2 project funds applied	11
Grant & gift funded capital	14
Sources of OHSU cash	123
Regular principal repaid	(19)
Capital spending	(70)
Other working capital, net	28
Uses of OHSU cash	(61)
Sources less uses of cash	62
6/30/18 balance	1,054
9/30/18 balance	$1,116

OHSU

Oregon Health & Science University

Board of Directors

Drew Corrigan
Sarah Opfer

October 25, 2018

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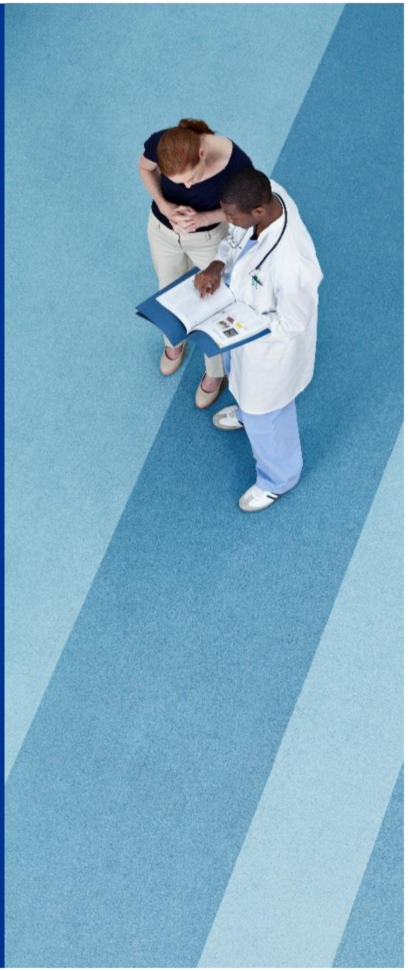

Purpose and scope of audit examinations

Audit scope

- Oregon Health & Science University – Consolidated Report
  - University Hospital/Doernbecher Children’s Hospital
  - University Activity, including the OHSU Practice Plan (OPP)
  - Hospital Activity, including separate opinion over these balances
- Oregon Health & Science University Foundation
- Doernbecher Children’s Hospital Foundation
- Oregon Health & Science University – OMB Uniform Guidance Single Audit
- Oregon Health & Science University – Family Medicine at Richmond
- OHSU Insurance Company (InsCo)
- University Medical Group (UMG)
- OHSU – Institute on Development and Disability (IDD) Supplement
- Tuality Healthcare

Purpose and scope of audit examinations

Purpose of audit

- To express an opinion that the financial statements "present fairly, in all material respects, the net position and results of operations" of OHSU
- An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of OHSU's internal control over financial reporting
- External audit procedures do not replace internal audit or management controls

Audit team

Oregon Health & Science University (Including Family Medicine at Richmond and IDD)

Dan Rozema †
EQCR Partner

Drew Corrigan†
Audit Engagement Partner

Chris Ray
GASB 68 Specialist

Ashley Carlile†
Lead Audit Senior Manager

Nicole Blizzard†
Lead Audit Senior Associate

Connor Jarchow†
Second Senior Associate

InsCo	Tuality Healthcare	University Medical Group	OHSU Single Audit
Amy Banovich† *Audit Engagement Partner* **Leigh Wilson-Gasparovic†** EQCR **Ashley Carlile†** *Audit Senior Manager* **Nicole Blizzard†** *Audit In-Charge Associate*	**Sarah Opfer†** *Audit Managing Director* **Dan Rozema †** *EQCR* **Ashley Carlile†** *Audit Senior Manager* **Alex Basile** *Audit In-Charge Associate*	**Drew Corrigan†** *Audit Engagement Partner* **Dan Rozema †** *EQCR* **Jacob Heilsberg†** *Audit Manager* ***AJ Cole†*** *Audit In-Charge Associate*	**Drew Corrigan†** *Audit Engagement Partner* **Dan Rozema †** *EQCR* **Tiffany Orford†** *Audit Manager* **Chelsea Lambert†** *Audit Senior Associate*

† denotes returning team members

Audit team (continued)

Oregon Health & Science University and Doernbecher Children's Hospital Foundations

Dan Rozema †
EQCR Partner

Drew Corrigan†
Audit Engagement Partner

Jacob Heilsberg †
Audit Manager

Chloe Basile
Audit Senior Associate

Specialists

Nick Katsanos †
Financial Risk Management (Alternative Investments)

Sue Robison †
Tax-exempt Organizations

Patty Smolen†
Actuary-Malpractice

Danny Murphey
IT Audit

Jim Kreamer†
Actuary (Pension)

Jasper Ridge
KPMG Fort Worth

† denotes returning team members

Key audit areas

Key processes and controls

— Patient revenue
— Student tuition
— Grant revenue
— Expenditure cycle
— Payroll
— Risk Management
— Oracle and Epic IT Controls

Significant account balances

— Investments, including alternative investments at the Foundations
— Self-insured liabilities
— Debt, including capitalized interest
— Pension (PERS)

Auditors' responsibilities for communication with the board of directors

The auditor's responsibility under auditing standards generally accepted in the United States of America. Communicate responsibility assumed for the internal control structure, material errors, irregularities and illegal acts, etc.

— Our audit was designed in accordance with Government Auditing Standards to provide reasonable assurance that the financial statements are free of material misstatement.

— We have the responsibility to obtain sufficient understanding of internal control to plan our audits and determine the nature, timing and extent of procedures to be performed.

— We noted no material errors, irregularities or illegal acts. The changing regulatory environment places greater risk of compliance with regulatory requirements.

— We will issue an unmodified opinion stating that the financial statements of OHSU are fairly presented, in all material respects, in accordance with GAAP.

Significant accounting policies. The Board should be informed about the initial selection of and changes in significant accounting policies as well as the methods used to account for significant unusual transactions.

— New accounting policies in current year include:

- GASB 75, OPEB
- GASB 81, Split Interest Agreements

Auditors’ responsibilities for communication with the board of directors (continued)

Passed adjustments. Any passed audit adjustments proposed by the auditor impacting earnings, but not recorded by the client, should be communicated to the Board.

— None noted

Recorded audit adjustments impacting earnings. All significant recorded audit adjustments arising from the audit should be communicated to the Board.

— None noted.

Disagreements with management. Disagreements with management, whether or not satisfactorily resolved, about matters that could be significant to the financial statements or the auditors’ report should be communicated to the Board.

— There were no such disagreements.

Auditors' responsibilities for communication with the board of directors (continued)

Other information in documents containing audited financial statements.

— Management Discussion and Analysis.

— Required Supplementary Information: Proportionate share of the net pension (asset)/liability and related ratios, Schedule of defined benefit pension plan contributions.

— Institute on Development and Disability Supplemental Schedules (formerly CDRC).

— Combining Schedules.

Difficulties encountered in performing the audit. Serious difficulties encountered in dealing with management that relate to the performance of the audit are required to be brought to the attention of the Board.

— No difficulties were encountered in performing our audits.

Deficiencies in internal control. Any deficiencies in internal control encountered while performing the audit are required to be brought to the attention of the Board.

— There were no significant deficiencies or material weaknesses noted in the internal control structure.

Auditor independence.

— KPMG is independent of OHSU.

Auditors' responsibilities for communication with the board of directors (continued)

Non-routine transactions. The Board should be informed about the methods used to account for significant or non-routine transactions.

— Jasper Ridge (Investment fund entity)

— Adventist Affiliation

Management judgments and accounting estimates. The Board should be informed about the process used by management in forming particularly sensitive accounting estimates and about the basis for the auditor's conclusions regarding the reasonableness of those estimates.

— See slide 13 - 14 for more details

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OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Financial Statements
and Supplementary Information

June 30, 2018 and 2017

(Dollars in thousands)

(With Independent Auditors' Report Thereon)

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)

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Independent Auditors' Report

The Board of Directors
Oregon Health & Science University:

We have audited the accompanying financial statements of the business-type activities and discretely presented component unit of Oregon Health & Science University (OHSU), which comprise the statements of net position as of June 30, 2018 and 2017, and the related statements of revenue, expenses, and changes in net position and cash flows for the years then ended, and the related notes to the financial statements, which collectively comprise OHSU's basic financial statements. We have also audited the supplemental financial information of OHSU Hospital, as of and for the years ended June 30, 2018 and 2017, included in schedule 3.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions on these financial statements based on our audits. We audited the financial statements of the aggregate discretely presented component unit for the years ended June 30, 2018 and 2017. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audits opinions.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of Oregon Health & Science University, the discretely presented component unit as of June 30, 2018 and 2017 and the supplemental financial information of OHSU Hospital in schedule 3 for the years ended June 30, 2018 and 2017, and the respective changes in its financial position and, where applicable its cash flows thereof, for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in note 2 to the financial statements, in 2018 OHSU adopted new accounting guidance as contained in the Governmental Accounting Standards Board Statement No. 81, Irrevocable Split Interest Agreements. Our opinion is not modified with respect to this matter.

Other Matters

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 26, the schedule of funding progress for the postemployment healthcare benefit plan on page 103, the proportionate share of the net pension liability, and related ratios on page 103, and the schedule of defined-benefit pension plan contributions on page 103, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Government Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information, in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements as a whole. The supplemental information included in schedules 1 and 2 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with U.S. generally accepted accounting principles. In our opinion, the information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

(signed) KPMG LLP

Portland, Oregon
October 26, 2018

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)
Management Discussion and Analysis
June 30, 2018 and 2017

Introduction

Oregon Health & Science University (OHSU or the University) is Oregon's only public health sciences university and major academic health center. It is a national leader in education of health professionals and scientists, advanced biomedical and healthcare research, leading-edge patient care and outreach. OHSU's strategy is to partner to make Oregon a leader in health and science innovation to improve the health and well-being of Oregonians.

The following discussion and analysis provides an overview of the financial activities of OHSU for the year ended June 30, 2018 and should be read in conjunction with the financial statements and related note disclosures. This discussion was prepared by management and is designed to focus on current activities, resulting changes, and current known facts with selective comparative information for the years ended June 30, 2017 and June 30, 2016.

Net position has been adjusted at June 30, 2017 for the adoption of GASB Statement No. 81, *Irrevocable Split – Interest Agreements (*GASB 81) and is summarized as follows (in thousands):

Net position at June 30, 2017	$	3,140,701
Adoption of GASB 81		(29,120)
Net position at June 30, 2017, as adjusted	$	3,111,581

Additionally, during the year-ended June 30, 2018, OHSU adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions* (GASB 75). While adjustment of all prior periods was not practical because the actuarial information was not available, the cumulative effect of applying this statement is reported as an adjustment of beginning net position as of July 1, 2017 and is summarized as follows (in thousands):

Net position at July 1, 2017	$	3,111,581
Adoption of GASB 75		(3,974)
Net position at July 1, 2017, as adjusted	$	3,107,607

For purposes of management's discussion and analysis, comparative data for the statement of net position will reflect the adoption of GASB 81 at June 30, 2017 and GASB 75 at July 1, 2017. Certain balances as of June 30, 2017 and July 1, 2017 have been reclassified to conform with current year presentation.

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)
Management Discussion and Analysis
June 30, 2018 and 2017

		2018	2017	2016
Net position – beginning of year, as previously reported	$	3,111,581	2,918,276	2,516,469
Adjustment to beginning of year net position due to GASB 81		—	(27,737)	—
Adjustment to beginning of year net position due to GASB 75		(3,974)	—	—
Net position beginning of year, as adjusted		3,107,607	2,890,539	2,516,469
Total increase in net position		259,684	222,425	401,807
Adjustment to total increase in net position due to GASB 81		—	(1,383)	—
Net position – end of year, as adjusted	$	3,367,291	3,111,581	2,918,276

Financial Highlights

The broadest indicator of OHSU's financial strength is net position, or assets and deferred outflows less liabilities and deferred inflows. In fiscal year 2018, net position increased by $260 million or 8.4% from strong operating income and investment returns. This follows an increase in net position of $221 million or 7.6% in 2017 (using adjusted positions), also driven by operations and investments, and an increase of $402 million or 16% in 2016, largely due to gift income offset in part by pension expense. Over these three years, OHSU's net position increased by a cumulative 34% to $3.37 billion.

Condensed Statements of Revenues, Expenses, and Changes in Net Position

(Dollars in thousands)

		2018	2017	2016
Patient service revenue, net	$	2,210,653	2,097,255	1,989,644
Gifts, grants, and contracts		613,352	554,829	899,805
All other operating revenues		226,053	196,690	183,645
Total operating revenues		3,050,058	2,848,774	3,073,094
Salaries, wages, and benefits		1,732,915	1,623,266	1,512,950
Defined benefit pension		76,587	85,277	222,124
All other operating expenses		1,130,475	1,091,677	1,029,761
Total operating expenses		2,939,977	2,800,220	2,764,835
Operating income		110,081	48,554	308,259
State appropriations		37,026	35,560	35,567
Other nonoperating revenues (expenses)		92,543	112,197	9,486
Other changes in net position		20,034	24,731	48,495
Total increase in net position, as adjusted		259,684	221,042	401,807
Net position – beginning of year, as adjusted		3,107,607	2,890,539	2,516,469
Net position – end of year	$	3,367,291	3,111,581	2,918,276

Operating income comprised $110 million of fiscal year 2018's increase in net position, up from $49 million in fiscal year 2017, on 7% revenue growth. Higher earnings reflected ongoing focus on OHSU's missions of education, research, health care and outreach, combined with the Knight Cancer Challenge, support from the State of Oregon (the State), and University-wide efforts to control costs.

During fiscal year 2018, the State and OHSU worked closely to secure federal funding through a new intergovernmental transfer (IGT) approach that reduced OHSU's loss on Medicaid and other unique services provided as the State's only public academic health center. While research and education support through the IGT partnership with the State dates back to 2000, in fiscal year 2018 the new program generated $97.5 million, up from $85 million in the prior fiscal year. This reduces OHSU's loss on Medicaid, allowing an additional $12.5 million of funds to support research and education in Oregon's health sciences university. The legislature authorized the program within the Oregon Health Authority's 2017-2019 budget, and the Centers for Medicare and Medicaid Services (CMS) gave federal approval prior to implementation on January 1, 2018. This new approach replaces several previous funding mechanisms and ended OHSU's participation in Oregon's provider tax.

Patient service revenue increased 5.4% to $2.2 billion in fiscal year 2018, on higher surgical cases, ambulatory visits and case mix index, a measure of the complexity of inpatient care provided. Patient services revenue net of provider tax, which ended midway through fiscal year 2018, increased by 7.5% in fiscal year 2018.

	Fiscal year ending June 30			Variance	
	2018	2017	2016	2018 v 2017	2017 v 2016
	(Dollars in thousands)				
Patient service revenue	$ 2,210,653	2,097,255	1,989,644	5.4 %	5.4 %
Provider tax	49,600	87,766	89,543	(43.5)	(2.0)
Patient service revenue net of provider tax	$ 2,161,053	2,009,489	1,900,101	7.5 %	5.8 %

Five years ago, Nike co-founder Phil Knight and his wife, Penny, issued a $500 million fundraising challenge to OHSU, which concluded successfully in June 2015. The State supported the Knight Cancer Challenge with a $200 million grant for research and clinical trial facilities on the South Waterfront campus, and contributions from more than 10,000 donors, including $100 million from Gert Boyle, completed the challenge. The $1 billion in total funds will be used in the fight to eradicate cancer, particularly through advanced early detection. In fiscal year 2016, the Knights' matching pledge of $500 million was recorded. In fiscal year 2018, gift, grants and contracts reflect $116 million of the State grant applied to research facilities, with an additional $75 million recorded across fiscal years 2017 and 2016.

Revenues to the University from grants and contracts, excluding the State grant to the Knight Cancer Challenge, totaled $448 million in fiscal year 2018, including nearly $92 million of indirect cost recovery for facility and administrative costs. This is an increase of 6.1% from fiscal year 2017, driven by consistent growth in federal government, industry and external Foundation grants, an indicator of the success of OHSU's research and other programs. Gifts are recorded at the OHSU Foundation and Doernbecher Children's Hospital Foundation when pledged, and at the University when transferred from the Foundations and applied to program

 (Continued)

expenditures. The receipt of large gifts pledged in one year, received in cash over time, then spent during subsequent periods, results in significant fluctuation in the gift component of OHSU revenues on a combined basis.

		Fiscal year ending June 30		
		2018	2017	2016
		(Dollars in thousands)		
University grants and contracts, direct portion	$	356,587	336,206	297,288
University grants and contracts, indirect cost recovery		91,869	86,430	80,961
State grant to Knight Cancer Challenge		116,085	59,037	15,661
Foundation gifts, net of eliminations, transferred to the University		48,811	73,156	505,895
Total gifts, grants, and contracts	$	613,352	554,829	899,805

State appropriations increased 4% in fiscal year 2018, the start of the State's 2017-2019 budget biennium. State appropriations support education in the Schools of Nursing, Dentistry and Medicine, as well as operations of the Child Development and Rehabilitation Center, the Office of Rural Health, and the Poison Center.

Student tuition and fees were $74 million and $70 million in fiscal year 2018 and 2017, respectively. Fiscal year 2018 marks the fifth year of the OHSU Tuition Promise. Under this initiative, students enrolled in eligible clinical degree programs pay a tuition rate that is fixed for the remainder of their studies, as long as they complete the degree within the normal timeframe specified by the program.

Operating expense has been impacted by OHSU's proportionate share of the Oregon Public Employees Retirement System (PERS) defined-benefit pension expense. Defined-benefit pension expense for 2018 and 2017 was $77 million and $85 million, respectively, reflecting several assumption changes made in prior years, including lowering the long-term expected rate of return to 7.5%. Fiscal year 2016 pension expense of $222 million included the Oregon Supreme Court decision in *Moro v. State of Oregon* that reversed a significant portion of reductions to future cost of living adjustments passed by the Oregon Legislature in prior years through Senate Bills 822 and 861.

Fiscal year 2018 operating expense also included integrated clinical operations support for Adventist Health Portland at $5 million, an affiliate since January 1, 2018, and Tuality Healthcare (Tuality) at $7 million, a partner since February 2016.

Other nonoperating revenues (expenses) and other changes in net position include investment returns, contributions for capital and nonexpendable donations. These totaled $113 million in fiscal year 2018 compared to $137 million in fiscal year 2017, largely due to higher market returns. Policies set by OHSU and the Foundations dictate how investments are allocated and what risk profiles are assumed. Working capital is primarily invested in short duration, liquid fixed-income assets. Long-term investment strategy, including the investment of endowment funds and the associated spending distribution policy at the OHSU Foundations, is equity oriented, aiming to maximize total return, promote diversification, preserve capital, and provide for cash flow needs of the University.

In conjunction with the Knight Cancer Challenge and construction of the Knight Cancer Research Building that opened in September 2018, OHSU began construction on a new ambulatory building, the Center for Health & Healing 2 (CHH-2), together with cancer clinical trial space, parking and the Rood Family Pavilion for patient and family housing. This second set of facilities on the South Waterfront is on track to open by the spring of 2019. CHH-2 will allow patients previously filling inpatient beds to be cared for in an advanced outpatient and short-stay setting, with access to leading-edge diagnostic and treatment services. In fiscal year 2017, OHSU issued a second round of new debt, totaling $120 million including premiums, to finance CHH-2, which was also part of matching the State grant. In 2016, OHSU issued the first round of new debt of $120 million for CHH-2 and took advantage of low interest rates and tight credit spreads to refinance existing debt for approximately $25 million in present value savings.

The recording of large gifts, the State grant to the Knight Cancer Challenge, and accrued expense for pension have caused large swings in OHSU's revenues and expenses over the past several years. Management uses the following analysis of changes in net position to track underlying operating performance on a consistent basis.

Components of Change in Net Position

(Dollars in thousands)

		2018	2017	2016	Total
Operating income – Total University less State grant to the Knight Cancer Challenge and accrual adjustments for pension and other post-employment benefits (GASB 68 and GASB 75)	$	140,987	130,972	140,928	412,887
State grant to Knight Cancer Challenge		116,085	59,037	15,661	190,783
Accrual adjustments for pension and other post-employment benefits		(38,063)	(54,041)	(190,453)	(282,557)
Operating income – Total University		219,009	135,968	(33,864)	321,113
Foundations operating income, contributions for capital and other, nonexpendable donations and eliminations		(51,868)	(27,123)	426,185	347,194
Investment income and gain (loss) on fair value of investments		90,823	111,940	8,610	211,373
Other nonoperating revenues (expenses), net		1,720	257	876	2,853
Total change in net position, as adjusted	$	259,684	221,042	401,807	882,533

Annual total increases in net position as of June 30, 2018, as adjusted	$	882,533
Adjustment to beginning of year net position due to GASB 81		(27,737)
Adjustment to beginning of year net position due to GASB 75		(3,974)
Cumulative change over three years in net position, as adjusted	$	850,822

On the Combining Schedules of Revenues, Expenses and Changes in Net Position included at the end of the financial statements, the “Total University” column presents revenues and expenses before consolidation of the Foundations, with gifts recorded when transferred from the Foundations to the University for use, rather than when pledged. In addition, State appropriations are included within operating revenues to match the operating expenses for education and operations that the appropriations support. From this column, two other adjustments are made: revenue from the State grant to the Knight Cancer Challenge is removed, and expenses for pension and other post-employment benefits are recorded on a cash basis, rather than an accrual basis, as they were prior to adoption of GASB 68 for pension and GASB 75 for other post-employment benefits.

Using the noted management adjustments, Total University operating income was $141 million in fiscal year 2018, $131 million in fiscal year 2017, and $141 million in fiscal year 2016, totaling $413 million for the three years combined, reflecting the consistency of OHSU’s underlying operating performance, despite an environment where health care cost containment and industry consolidation, government budget constraints, and high student debt levels all limit the payment rate increases possible for most OHSU revenue streams.

Including the total State grant impact of $191 million and adjusting for the cash-to-accrual adjustments for pension and other post-employment benefits by $283 million, results in a three-year operating income for the Total University column of $321 million. The net impact of philanthropy through operating income at the Foundations, nonexpendable donations, capital contributions and other, totaled $347 million; while investment returns and other nonoperating items added $214 million over three years. Thus the total growth in net position during fiscal years 2016 through 2018 was $883 million or 35%, reflecting a diversified combination of earnings from OHSU operations, State support, philanthropy and investment returns.

OHSU Missions

With the appointment of Danny O. Jacobs, MD, MPH, FACS as the fifth president of OHSU effective August 1, 2018, and nearing conclusion of the existing Vision 2020 strategic plan first developed in 2007, the University is launching a new strategic planning process in fiscal year 2019. The following sections highlight achievements under Vision 2020 for each mission.

OHSU Education

OHSU's first mission is the education and training of dentists, nurses, physicians, physician assistants, other health professionals, biomedical scientists and engineers, through a broad range of undergraduate and graduate programs that provide healthcare and biomedical workforce for Oregon and beyond. Educational programs are conducted on the OHSU campus in Portland and at various locations throughout the State. Collaborative programs enable OHSU to offer a joint Doctor of Pharmacy degree through an affiliation with Oregon State University (OSU) as well as a joint Ph.D. degree and a joint Master of Science degree in Medical Physics. In partnership with Oregon Institute of Technology (OIT), OHSU offers a joint B.S. degree in Medical Laboratory Science, a joint B.S. degree in Emergency Medical Services Management and a joint Associate of Applied Science degree in Emergency Medical Technology–Paramedic. OHSU also offers a joint Master of Business Administration in Health Care Management and has established a joint School of Public Health with Portland State University (PSU).

As of the fall 2017 term, OHSU had 2,895 students enrolled in its various programs (excluding students enrolled in the joint degree programs with OSU and OIT as well as the School of Public Health joint degree students registered by PSU). The following table sets forth the number of students enrolled in OHSU's programs for each of the past three academic years.

Fall Headcount Enrollment [(1)]
for Programs in the years Indicated

	2017/2018	2016/2017	2015/2016
School of Dentistry:			
Graduate	27	27	27
Professional	290	294	298
Subtotal	317	321	325
School of Medicine:			
Undergraduate	14	13	15
Graduate	773	827	806
Professional	592	578	556
Subtotal	1,379	1,418	1,377
School of Nursing:			
Undergraduate	762	764	812
Graduate	214	217	228
Professional	40	41	36
Subtotal	1,016	1,022	1,076
School of Public Health:[(2)]			
Graduate	183	138	117
Total	2,895	2,899	2,895

(1) This table excludes interns, residents, trainees and students enrolled in the joint degree programs with OSU and OIT as well as the School of Public Health joint degree students registered by PSU.

(2) Public Health enrollment under the Schools of Medicine and Nursing were transferred to the School of Public Health in 2015-16.

OHSU Research

OHSU is a national leader in neuroscience; cancer research; hearing; microbiology; ophthalmology; infectious disease and immunology; reproductive biology; atomic, molecular, cellular, and tissue imaging; and evidence-based medicine. In 2018, OHSU research projects received 71.0% of the grants made by the National Institutes of Health (NIH) in the state of Oregon, with the next largest recipient receiving 10.3% of the grants. OHSU was ranked 28th out of the 2,498 entities that received funding from the NIH in 2018. Faculty members include five members of the National Academy of Sciences and five members of the National Academy of Medicine. Researchers at OHSU have developed many of the leading advances in medicine, including the first artificial heart valve, pioneering use of optical coherence tomography, the first percutaneous angioplasty procedure and the first molecularly targeted cancer therapy (Gleevec®). OHSU's many institutes are nationally and internationally recognized, including the Knight Cancer Institute, the only National Cancer Institute designated Comprehensive Cancer Center in Oregon.

OHSU actively pursues private and public partnerships on important and innovative research projects to supplement federal funding, with corporate partners such Thermo Fisher Scientific's Analytical Instrumentals Segment, a leading electronic microscopy company, and other major information technology and life sciences companies, and with academic partners such as PSU, OSU, University of Oregon, Pacific Northwest National Laboratory and Lawrence Berkeley National Laboratory.

In fiscal year 2018, OHSU was selected by the NIH to develop one of three national cryo-electron microscopy or cryo-EM, centers meant to broaden U.S. scientists' access to the imaging method that is revolutionizing structural biology. The NIH is anticipated to invest $129.5 million, pending the availability of funds, to establish all three centers and expand the use of this Nobel Prize winning method of imaging. OHSU's Pacific Northwest Center for cryo-EM, a partnership with the Pacific Northwest National Laboratory (PNNL), will bring four new electron microscopes to campus and will be staffed by scientists from OHSU and PNNL. The new center, slated to open in October 2018, will begin installing new cryo-EM instruments later this year in the Robertson Collaborative Life Sciences Building (RLSB) on OHSU's South Waterfront Campus.

OHSU Healthcare

OHSU is home to Oregon's only major academic health center, which serves a multistate area with tertiary health care services from its campus in Portland, Oregon, where it operates two hospitals, OHSU Hospital and OHSU Doernbecher Children's Hospital (Doernbecher Hospital and, collectively with OHSU Hospital, the OHSU Hospitals), with 576 licensed beds. During 2018, the OHSU Hospitals represented 7.2% of the available beds and 8.4% of the filled beds for the entire State. The OHSU Hospitals had an 83.3% occupancy rate for available beds in 2018, compared to the Oregon statewide average of 64.4% according to the Oregon Association of Hospitals and Health Systems' Oregon DataBank. As an academic health center, OHSU's professional staff is composed primarily of the faculty of OHSU's School of Medicine. The OHSU Practice Plan (OPP) is the largest organized clinical practice in Oregon. As of June 30, 2018, there were over 1,879 active faculty practice plan members, including physicians, nurse practitioners, physician assistants and other licensed independent practitioners from across all medical specialties.

OHSU Patient Activity	Fiscal year ending June 30 2018	2017	2016	Variance 2018 v 2017	2017 v 2016
	(Dollars in thousands)				
Inpatient admissions	29,213	29,747	29,834	(1.8)%	(0.3)%
Average length of stay	5.94	5.92	5.89	0.3	0.5
Average daily census	464	470	469	(1.3)	0.2
Day/observation patients	40,378	37,552	37,708	7.5 %	(0.4)%
Emergency visits	48,461	47,193	49,180	2.7	(4.0)
Ambulatory visits	955,857	893,999	856,291	6.9	4.4
Surgical cases	35,560	33,892	33,137	4.9	2.3
Casemix index	2.18	2.09	2.03	4.3 %	3.0 %
Outpatient share of activity	51.5 %	49.5 %	47.6 %	4.0	4.0
CMI/OP adjusted admissions	131,210	122,967	115,368	6.7	6.6

In addition to its tertiary care focus in Portland, OHSU is working with other health care providers noted below to leverage expertise and resources throughout Oregon.

Adventist Health. Adventist Health Portland and OHSU finalized an agreement to integrate their clinical activities and services in the Portland metropolitan area through an affiliation effective January 1, 2018. This agreement makes OHSU and Adventist Health Portland part of the same Portland metropolitan health system, bringing together Adventist's health care enterprise that includes a 302-bed medical center, 34 medical clinics and home care and hospice services in the Portland-Vancouver metro area. Under this affiliation, OHSU and Adventist Health will share a bottom line and operate as a unified system. The agreement does not include OHSU's research and education missions. The other 19 Adventist Health hospitals in the western United States are also excluded from the agreement. Each organization will retain its existing hospital licenses, capital assets and employees. Each entity will continue to maintain its own mission and culture but together will seek to transform access and the delivery of health to Oregonians through a unified clinical enterprise and shared brand experience.

***Tuality Healthcare*.** On February 1, 2016, OHSU affiliated with Tuality through the execution of a management agreement (the Tuality Agreement) between the organizations. Tuality owns and operates Tuality Community Hospital, a 167-licensed-bed acute care hospital located in Hillsboro, Oregon, and Tuality Forest Grove Hospital, a 48-licensed-bed acute care hospital located in Forest Grove, Oregon. Under the Tuality Agreement, OHSU agrees to oversee the unified and integrated clinical enterprises of OHSU and Tuality as a single, integrated economic unit. OHSU and Tuality remain as separate entities, own their own assets and continue to be the licensed operators of their own facilities. Under the Tuality Agreement, OHSU agrees to be responsible for Tuality's operating income and loss, including making cash payments to Tuality in an amount equal to any Tuality operating loss, in the manner specified in the Tuality Agreement. In addition, Tuality is converting to the OHSU EPIC electronic health record system, with final go-live in inpatient units in November 2018.

***Mid-Columbia Medical Center*.** In August 2014, Mid-Columbia Medical Center (MCMC) and OHSU signed a 10-year mutual cooperation agreement. MCMC is a 49-bed general medical and surgical hospital in The Dalles, Oregon, approximately 85 miles east of Portland. OHSU and MCMC have collaborated for a number of years on projects in cardiology and other specialties. The collaboration supports the continued and enhanced availability and local provision of primary care and specialty services at MCMC and in the MCMC service area recruitment and leasing of medical professionals from OHSU to MCMC. As part of the collaboration, OHSU supports the management and delivery of outpatient services at MCMC, and MCMC added an eighth position to its board of directors, selected by OHSU. In addition, MCMC converted to the EPIC electronic health records system, as used by OHSU.

Columbia Memorial Hospital. OHSU and Columbia Memorial Hospital (CMH) in Astoria, Oregon, have collaborated on programs, including cardiology and cancer, offering chemotherapy, imaging, pharmacy, and other services for individuals on the North Oregon Coast. OHSU and CMH jointly organize and operate an Oncology Collaboration, including a 18,000-square-foot comprehensive cancer treatment center and specialty clinic, with radiation therapy. CMH owns and operates the cancer treatment center, opened in October 2017, under its license while OHSU has provided the professional services and medical direction through OHSU-employed physicians.

OHSU and Doernbecher Foundations

OHSU has two designated independent nonprofit foundations – the Oregon Health and Science University Foundation (the OHSU Foundation) and the Doernbecher Children's Hospital Foundation (the Doernbecher Foundation), collectively, the Foundations. The Foundations exist to secure private philanthropic support to advance OHSU's vital missions and to invest and manage gifts responsibly to honor donors' wishes.

The OHSU Foundation is an Oregon nonprofit corporation promoting the charitable, scientific, and educational purposes of OHSU. Doernbecher Foundation is an Oregon nonprofit corporation promoting interest in and support for Doernbecher Children's Hospital. Both Foundations are component units of OHSU for financial reporting purposes, but are not part of the OHSU Obligated Group established pursuant to the Master Indenture, which currently consists solely of OHSU. Both Foundations have self-perpetuating boards of directors, on which the OHSU president sits as an ex officio voting member.

As OHSU's designated foundations, all development activities conducted by the Foundations must be coordinated with OHSU. In accepting gifts, the Foundations must obtain OHSU approval for all endowments and any gifts that result in new programs. In addition, if either foundation were dissolved or if the OHSU president were to revoke recognition of either foundation as an OHSU-designated foundation, the assets of such Foundation would, within the limits of legal and fiduciary rights, be distributed to OHSU, its successor in interest, or to another entity recognized by OHSU as an institution foundation. These interrelated functions and requirements have been further confirmed and implemented in the articles and bylaws of the Foundations. The table below identifies major gifts, which are reported as required under the Council for Advancement and Support of Education (CASE) Reporting Standards and Management Guidelines, which may differ from recognition rules under governmental accounting standards.

Amount	OHSU major gifts description	Fiscal year
$25 million	OHSU and Doernbecher Children's Hospital gift	2017–18
$14.7 million	SMMART Trials grant	2017–18
$10 million	Doernbecher Children's Hospital Foundation NICU construction gift	2017–18
$15 million	Center for Pancreatic Health gift	2016–17
$15 million	Casey Eye Institute gift	2015–16
$12 million	Gary and Christine Rood Family Pavilion gift	2015–16
$500 million	Knight Cancer Institute gift	2014–15
$100 million	Knight Cancer Institute gift	2014–15
$38.8 million	Vaccine and Gene Therapy Institute, Oregon National Primate Research Center, and Behavioral Neuroscience grant	2014–15
$28.9 million	Knight Cancer Institute and OHSU Parkinson Center gift	2013–14
$25 million	Center for Pancreatic Health gift	2013–14
$10 million	Knight Cancer Institute gift	2013–14
$125 million	Gift to create a Cardiovascular Institute at OHSU	2012–13
$25 million	Bob and Charlee Moore Institute for Nutrition gift	2011–12
$10 million	New School of Dentistry gift	2010–11
$100 million	Knight Cancer Institute gift	2008–09

Statements of Net Position

The statements of net position present the assets and liabilities, deferred inflows of resources and deferred outflows of resources, and net position of OHSU as of a point in time. Net position, the difference between total assets and deferred outflows as compared to total liabilities and deferred inflows, presents the financial position at the end of the fiscal year and is one of the broadest measures of the financial condition of OHSU, while the change in net position is an indication of whether the overall financial condition has improved or worsened during the year.

The following table summarizes OHSU's statements of net position for the past three years by major category of assets, liabilities, deferred inflows and outflows, and net position.

Condensed Statements of Net Position

(Dollars in thousands)

		2018	2017	2016
Assets:				
Current assets	$	1,155,648	1,209,077	1,262,697
Capital assets		2,009,564	1,742,740	1,606,554
Other noncurrent assets		2,229,923	2,143,462	1,820,172
Total assets		5,395,135	5,095,279	4,689,423
Deferred outflows		182,548	299,377	84,713
Total assets and deferred outflows	$	5,577,683	5,394,656	4,774,136
Liabilities:				
Current liabilities	$	536,439	517,683	495,305
Noncurrent liabilities		1,498,180	1,619,739	1,298,424
Total liabilities		2,034,619	2,137,422	1,793,729
Deferred inflows		175,773	145,653	62,131
Net position:				
Net investment in capital assets		1,160,403	997,731	876,150
Restricted, expendable		813,026	842,794	872,294
Restricted, nonexpendable		249,931	231,908	215,005
Unrestricted		1,143,931	1,039,148	954,827
Total net position, as adjusted		3,367,291	3,111,581	2,918,276
Total liabilities, deferred outflows and net position	$	5,577,683	5,394,656	4,774,136

Components of Net Position

As noted earlier, total net position increased $260 million during fiscal year 2018, as compared to an increase of $221 million during fiscal year 2017.

In fiscal years 2018 and 2017, the increase of net position occurred within net investment in capital assets and unrestricted, with net investment in capital assets up $163 million in 2018 and $122 million in 2017. Unrestricted net position increased $105 million and $84 million in 2018 and 2017, respectively. With the adoption of GASB 81 in fiscal year 2018, restricted net position, which is 31.6% and 34.5% of OHSU's total net position, decreased by $12 million and $13 million, in 2018 and 2017, respectively, primarily driven by programmatic spending on research and academics and adjustment related to the irrevocable split-interest agreements.

When evaluating OHSU's net position, it is important to note that OHSU's Marquam Hill property is leased from the State for renewable 99-year periods, at a lease payment equal to the debt service on bonds outstanding at the time of OHSU's separation from the Oregon University System. As that debt service is relatively low, the capitalized net present value of those lease payments is significantly less than the fair value of the included land and buildings.

Assets

The largest components of OHSU's assets are cash and investments and capital assets, or physical plant. During fiscal year 2018, OHSU's unrestricted and restricted cash and investments increased from $1.95 billion to $2.14 billion attributable to operating and investment performance and the Foundations activity.

Consolidated Asset Allocation of
Unrestricted and Restricted Cash and Investments

(Dollars in thousands)

	2018	2017	2016
Unrestricted cash and investments:			
Cash and equivalents	$ 60,678	82,583	331,560
Fixed-income investments	894,594	764,344	581,105
Equity investments	221,997	268,164	87,834
Mutual funds	138,980	126,396	110,952
Other	165,504	68,950	104,076
Subtotal	1,481,753	1,310,437	1,215,527
Restricted cash and investments:			
Cash and equivalents	13,374	3,712	88,619
Fixed-income investments	138,320	185,551	151,501
Equity investments	353,108	418,256	197,852
Mutual funds	—	9,181	3,634
Other	152,009	22,913	113,834
Subtotal	656,811	639,613	555,440
Totals	$ 2,138,564	1,950,050	1,770,967

The unrestricted portion of cash and investments is represented in the calculation of days cash on hand for OHSU. Days cash on hand increased from 197 days in 2017 to 212 days in 2018, the effect of a 13.0% increase in unrestricted operating cash and investments.

Days Unrestricted Cash and Investments on Hand

(Dollars in thousands)

		2018	2017	2016
OHSU:				
Unrestricted cash and investments	$	1,025,102	881,840	840,612
Less nonoperating cash and investments		(38,909)	(33,508)	(31,426)
Operating cash and investments	$	986,193	848,332	809,186
Unrestricted operating expenses:				
Total operating expenses	$	2,607,181	2,487,844	2,464,602
Less depreciation and amortization		(150,986)	(146,473)	(137,385)
Net unrestricted operating expenses	$	2,456,195	2,341,371	2,327,217
Daily expense	$	6,729	6,415	6,376
Days cash on hand		147	132	127
OHSU plus OHSU and Doernbecher Foundations:				
Unrestricted cash and investments	$	1,481,753	1,310,436	1,215,527
Less nonoperating cash and investments		(38,909)	(33,508)	(31,426)
Operating cash and investments	$	1,442,844	1,276,928	1,184,101
Unrestricted operating expenses:				
Total operating expenses	$	2,630,036	2,511,126	2,486,990
Less depreciation and amortization		(151,095)	(146,596)	(137,521)
Net unrestricted operating expenses	$	2,478,941	2,364,530	2,349,469
Daily expense	$	6,792	6,478	6,437
Days cash on hand		212	197	184

(Continued)

The following table presents the days unrestricted cash on hand for OHSU as of fiscal year ended June 30, 2018, 2017, and 2016, calculated with the removal of pension adjustments due to the adoption of GASB 68.

Days Unrestricted Cash and Investments on Hand Pre-GASB 68 Adjustment

(Dollars in thousands)

		2018	2017	2016
OHSU plus OHSU and Doernbecher Foundations:				
Operating cash and investments	$	1,442,844	1,276,928	1,184,101
Net unrestricted operating expenses	$	2,478,941	2,364,530	2,349,469
Pension adjustment GASB 68		(38,938)	(54,041)	(190,453)
Adjusted net unrestricted operating expenses	$	2,440,003	2,310,489	2,159,016
Daily expense	$	6,685	6,330	5,915
Days cash on hand (pre-GASB 68)		216	202	200

Capital assets, net of accumulated depreciation, increased by $267 million and $136 million, respectively, during fiscal years 2018 and 2017. In 2018, capital expenditures included the design and construction of the Knight Cancer Research Facilities, CHH-2, and the Gary and Christine Rood family pavilion.

Liabilities

Total liabilities decreased by $103 million, or 4.8%, in fiscal year 2018 after two consecutive fiscal year increases of $344 million, or 19.2%, and $510 million, or 39.8%, in 2017 and 2016, respectively. The reduction in liabilities is primarily due to current year recognition of unearned revenue associated with the State grant supporting the Knight Cancer Challenge and a reduction of OHSU's proportionate share of the PERS pension liability. In fiscal year 2017 and 2016, the increases were primarily due to pension liability, additional long-term debt for the CHH-2 project, and deferred revenue associated with the State grant.

Current liabilities consist primarily of the current portion of long-term debt, including capital leases, and self-funded insurance, accounts payable and accrued expenses, salaries, wages, and benefits payable and unearned revenue. Current liabilities showed an increase of $19 million and $22 million in fiscal years 2018 and 2017, respectively. In 2018, the increase was due to recognition of $120 million associated with the State grant supporting the Knight Cancer Challenge research facility, offset by increases in current portion of long-term debt, timing of accounts payable and accrued expenses and other current liabilities (including $73 million to the State of Oregon supporting the new Medicaid program).

Total noncurrent liabilities decreased $122 million in fiscal year 2018, due to a $102 million reduction in the pension liability and long-term debt. In fiscal year 2017, noncurrent liabilities increased $321 million due in part to the issuance of a series of long-term bonds totaling $120 million, including premiums, $42 million of principal payments and the recording of the pension liability of $526 million.

Debt Management. At the close of fiscal years 2018 and 2017, OHSU had a total of approximately $977 million and $1,002 million in long-term debt and capital leases outstanding, respectively, net of current portion. Approximately 18% of the total long-term debt was variable-rate debt issued in the form of variable-rate demand bonds.

Due to OHSU's sustained operating performance and increasing net position in 2018 and 2017, credit ratings have remained strong and stable. OHSU has maintained its Standard & Poor's and Fitch ratings of AA-, and Moody's rating of Aa3.

One measure of the degree of leverage on the University's statements of net position is the ratio of long-term debt to net position, shown below. From fiscal years 2017 to 2018, this metric remained stable as the newly issued long-term debt related to the new ambulatory care tower was offset by operating results.

		2018	2017	2016
			(Dollars in millions)	
Long-term debt and capital leases	$	1,002	1,009	931
Net position, as adjusted		3,367	3,112	2,918
Long-term debt and capital leases to net position		0.30	0.32	0.32

Maximum Annual Debt Service Coverage. The maximum annual debt service coverage ratio for an entity represents the amount of cash flow available to meet the maximum annual interest and principal payment on debt. Per bond covenants, OHSU's credit group must maintain a debt coverage ratio of 1.10 times or greater.

The University continues to exceed this minimum requirement with ratios of 4.90 in fiscal year 2018, 4.70 in 2017, and 2.87 in 2016. The difference between fiscal years 2018, 2017, and 2016 is largely due to the adoption of GASB 68 and the effect on OHSU's proportionate share of the Oregon PERS net pension liability.

Calculation of Maximum Annual Debt Service Coverage Ratio – Unrestricted

(Dollars in thousands)

		2018	2017	2016
Total excess of revenues over expenses	$	239,650	196,311	353,312
Add/subtract restricted net loss/gain		(95,251)	(56,505)	(374,504)
Unrestricted excess of revenues over expenses	$	144,399	139,806	(21,192)
Adjustments:				
Net unrealized (gain) loss in fair value of investments	$	(22,856)	(34,788)	3,615
Loss on disposal of assets		296	255	886
Interest expense[1]		27,319	28,657	33,962
Depreciation and amortization		151,095	146,596	137,521
Other		—	—	3,177
	$	155,854	140,720	179,161
Income available for debt service	$	300,253	280,526	157,969
Maximum annual debt service		61,230	59,629	55,080
Maximum annual debt service coverage		4.90	4.70	2.87

(1) Interest expense is decreased by investment income on trust accounts.

The following table presents the maximum annual debt service coverage ratio for the last three fiscal years, calculated with the removal of pension adjustments due to the adoption of GASB 68.

Calculation of Maximum Annual Debt Service Coverage Ratio – Unrestricted Pre-GASB 68 Adjustment

(Dollars in thousands)

		2018	2017	2016
Income available for debt service	$	300,253	280,526	157,969
Pension adjustment GASB 68		38,938	54,041	190,453
Adjusted income available for debt service	$	339,191	334,567	348,422
Maximum annual debt service	$	61,230	59,629	55,080
Maximum annual debt service coverage (pre-GASB 68)		5.54	5.61	6.33

Deferred Inflows and Outflows

Under GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, certain deferred outflows are presented below assets and certain deferred inflows are presented below liabilities.

In fiscal year 2018, the decrease in deferred outflows of $117 million and increase of deferred inflows of $30 million were primarily attributed to changes in the defined-benefit pension obligations. In fiscal year 2017, the deferred outflows increased $215 million and the deferred inflows increased $84 million due to several items of significance, including deferred amortization of derivative instruments, gains and losses on refunding debt, and obligations related to defined-benefit pension activities and the addition of the life income agreements and pending funds.

Within the deferred outflows section of the statements of net position is the deferred amortization of derivative instruments. OHSU currently holds one interest rate swap agreement. Previously, OHSU held two interest rate swap agreements, which were novated during 2016 and reassigned to a new counterparty under different terms. The 2018 and 2017 difference between the deferred amortization of derivative instruments were $1.5 million and $5.9 million, respectively. The overall difference in the deferred amortization of derivative instruments in 2018 was due to an increase in deferred inflows of $3.2 million and a decrease in deferred outflows of $1.2 million.

Losses and gains on refunding of debt are amortized over the shorter of the life of the new debt or the remaining life of the old debt. Absent any refunding activity, these numbers will slowly decline. OHSU has both deferred gains and losses. The deferred loss on refunding of debt of $23.8 million in 2018 and $25.2 million in 2017 is reported in the deferred outflows section below assets. The deferred gain on refunding of debt of $2.2 million in 2018 and $2.5 million in 2017 is reported in the deferred inflows section below liabilities. The last refunding transaction occurred in 2016 with the advance refunding of the Series 2009A Revenue Bonds.

With the adoption of GASB 68 in fiscal year 2015, defined-pension obligation activities are now included in deferred inflows and outflows. In fiscal year 2018 and 2017, the deferred outflows related to the Oregon PERS

(Continued)

pension obligation were $149 million and $264 million, respectively, primarily representing assumption changes, including lowering the long-term expected rate of return to 7.5%. Contributions made postmeasurement date are also reflected in deferred outflows. In fiscal year 2018, OHSU's contributions were $47 million, which included an additional $10 million in excess contribution above the contractually required $37 million. In fiscal year 2017, OHSU's contributions made post measurement date were $31 million. Deferred inflows related to pension activities for fiscal years 2018 and 2017 were $52 million and $36 million, respectively, representing an increase in proportionate share.

Statements of Revenues, Expenses, and Changes in Net Position

The statements of revenues, expenses, and changes in net position present OHSU's results of operations, including the Foundations. In accordance with generally accepted accounting principles for a government entity, revenues and expenses are classified as either operating or nonoperating.

Consolidated net income for OHSU, including the Foundations, totaled $240 million in fiscal year 2018, compared to $196 million in 2017. Major drivers of the fiscal year changes in net income are attributable to the continued growth of net patient service revenue (including a slowing payment rate growth), implementation of new Medicaid IGT program with the State of Oregon, and sustained growth in gifts, grants and contracts, offset by increases in services and supply costs, reflecting higher patient volume and operating support at Tuality and Adventist Health, and the recording of expenses associated with OHSU's proportionate share of the Oregon PERS's net pension liability.

In fiscal year 2018, OHSU launched a multi-year initiative called Accelerate OHSU that is designed to narrow the gap between payment rate and unit cost inflation; to facilitate volume growth across missions; to hold variable costs; and to reduce current expense base until new capacity can be brought fully online. Several of these initiatives are reflected in the current year.

Condensed Statements of Revenues, Expenses, and Changes in Net Position

(Dollars in thousands)

		2018	2017	2016
Total operating revenues	$	3,050,058	2,848,774	3,073,094
Total operating expenses		2,939,977	2,800,220	2,764,835
Operating gain		110,081	48,554	308,259
Nonoperating revenues, incl. state appropriations		129,569	147,757	45,053
Net income before other changes in net position for capital and other		239,650	196,311	353,312
Contributions for capital and other		3,053	9,586	34,732
Nonexpendable donations		16,981	15,145	13,763
Changes in net position, as adjusted		259,684	221,042	401,807
Net position – beginning of year, as adjusted		3,107,607	2,890,539	2,516,469
Net position – end of year	$	3,367,291	3,111,581	2,918,276

Total Operating Revenues

Total operating revenues on a combined basis (including the Foundations and reclassification of state appropriations to nonoperating revenues) totaled $3.05 billion and $2.85 billion in 2018 and 2017, respectively.

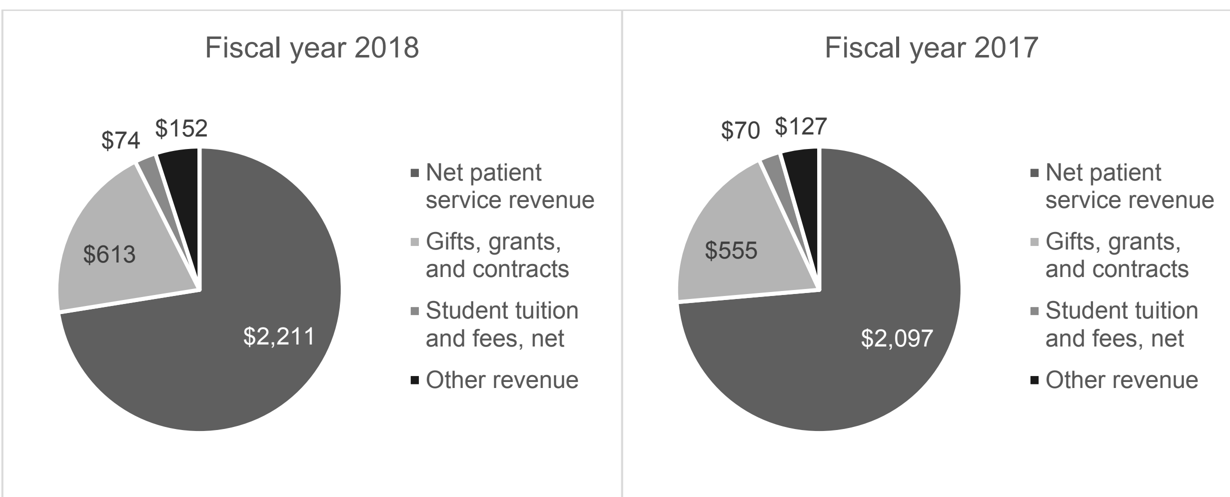
Net patient service revenue contributed to revenue growth, with an increase of $113 million and $108 million, or 5.4% and 5.4%, in fiscal years 2018 and 2017, respectively. Growth in ambulatory care, inpatient case mix, and pharmacy utilization drove much of these increases, with a flat growth in fiscal year 2018 reflecting capacity constraints (primarily in adult beds) and slowing payment rate growth.

Gifts, grants, and contracts continue to remain strong at $613 million and $555 million as portions of the State's $200 million grant supporting the Knight Cancer Challenge research facility were recognized in fiscal year 2018 and across 2017 and 2016 in the amount of $116 million and $75 million, respectively.

While annual state appropriations are considered nonoperating revenue, in practice they are budgeted for in operations as they support operating costs for specific education and service programs. State appropriations totaled $37 million and $36 million in fiscal years 2018 and 2017, respectively.

Operating Revenue by Source
Fiscal years 2018 and 2017 (Total $3.05 billion and $2.85 billion, respectively)

(Dollars in millions)



Total Operating Expenses

OHSU's total operating expenses on a combined basis increased by $140 million, or 5.0%, in fiscal year 2018, and $35 million, or 1.3%, in fiscal year 2017. In both 2018 and 2017, a significant portion of the increase in expenses, reflected in salaries, wages, and benefits, was due to OHSU's proportionate share of the Oregon PERS's defined-benefit pension expense at $77 million and $85 million, respectively. The remaining increases were mainly in support of the program growth, which also drove increases in revenue.

Salaries, wages, and benefits (excluding the impact of defined-benefit pension expense) comprised approximately 59% of total expenses, increased by $110 million, or 6.8%, in 2018 and $110 million, or 7.3%, in 2017, respectively. In the current fiscal year, OHSU Accelerate initiatives contained expense growth, while in fiscal year 2017 salaries and wages were adjusted to reflect market compensation levels for highly productive clinical staff, as well as recruitment for clinical programs that supported the continued growth in patient revenues.

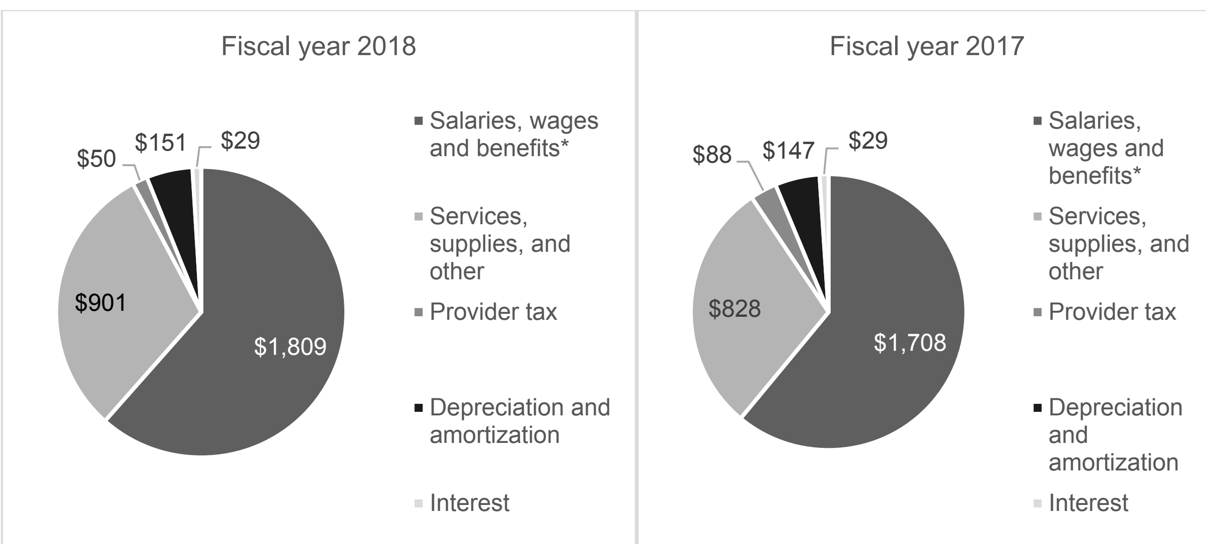
Services, supplies, and other expenses, including provider tax, showed an increase of $35 million, or 3.8%, in 2018, and $58 million, or 6.7%, in 2017 representing the nonlabor costs associated with the targeted program growth noted above and increased direct foundation support.

Depreciation and amortization, which represents the reduction in value of capital assets with the passage of time, showed an increase of $4.5 million, or 3.1%, in 2018, and $9 million, or 6.6%, in 2017.

Interest expense decreased by $0.7 million, or 2.3%, in fiscal year 2018 after a decrease of $4.9 million, or 14.5%, in fiscal year 2017. The decrease in interest expense in 2018 is driven by an increase in capitalized interest, and a decrease in debt issuance costs. Capitalized interest for 2018 and 2017 was $8.7 million and $6.5 million, respectively; while debt issuance costs incurred in 2018 and 2017 was $0.2 million and $1.3 million, respectively. Capitalized interest increased as a consequence of increased capital spending, while debt issuance costs decreased due to less debt financing activity.

Operating Expenses
Fiscal years 2018 and 2017 (Total $2.94 billion and $2.80 billion, respectively)

(Dollars in millions)



* Salaries, wages, and benefits figures include OHSU's proportionate share of the Oregon PERS's net pension liability of $77 million and $85 million in fiscal years 2018 and 2017, respectively.

Operating Expenses
by Functional Classification

(Dollars in thousands)

		2018	2017	2016
Instruction, research, and public service	$	471,869	436,645	420,535
Clinical activity		1,860,679	1,745,058	1,612,788
Auxiliary activities		7,470	8,740	9,450
Internal service centers		9,082	12,184	10,898
Student services		13,545	12,459	15,057
Academic support		82,955	84,353	62,655
Institutional support		165,296	159,342	149,363
Operations, maintenance, and other		106,288	104,195	124,187
Direct foundation expenditures		33,635	36,606	31,927
Depreciation and amortization		151,095	146,597	137,522
Defined pension benefit, net of contribution		38,063	54,041	190,453
Total operating expenses	$	2,939,977	2,800,220	2,764,835

Economic Outlook

As the U.S. economy enters the tenth year of recovery from the 2008 financial crisis and ensuing recession, the U.S. and Oregon economies have exhibited continued economic growth accompanied with robust labor markets. The Oregon unemployment rate continued to maintain historically low levels during the fiscal year, decreasing from 4.1% in June 2017 to 4.0% in June 2018. The unemployment rate also declined nationally, from 4.3% in June 2017 to 4.0% in June 2018. Economic growth has modestly accelerated above the post-recession trend of approximately 2% annually, with real GDP growing 2.8% year over year from March 2017 to March 2018.

For much of the past decade post financial crisis, interest rates in the U.S. and much of the developed world remained at historically low levels, with periodic fluctuations. Consistent with a strong U.S. economy, interest rates gradually increased over the fiscal year, with the 10-year U.S. treasury rate ending at 2.85% as of June 2018, compared to 2.31% in June 2017, with the short end of the treasury yield curve experiencing a greater upward shift than the long end.

The bull market in equities continued during fiscal year 2018 with the S&P 500 gaining nearly 19%. The Federal Reserve policymakers increased its target federal funds rate three times during the fiscal year, ending in a target range between 1.75% and 2.00% as of June 2018.

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)
Management Discussion and Analysis
June 30, 2018 and 2017

The healthcare regulatory environment continues to exhibit substantial policy uncertainty, especially at the federal level. Though legislative efforts to modify or repeal the Affordable Care Act (ACA) as of fiscal year end and into fiscal year 2019 appear to have subsided, executive actions continue to be considered and taken which have the potential to materially affect the functioning of the law going forward. The outcome of upcoming midterm elections in November 2018 could significantly reshape government policy toward the ACA and other laws and programs that impact OHSU across its missions. Consolidation in the healthcare industry, driven in part by the ACA, continues nationally and in Oregon, but at a somewhat slower pace than previously anticipated.

Oregon has taken a leading role in implementing the ACA, to significant effect. Approximately 500,000 Oregonians have gained health insurance coverage through the Oregon Health Plan (Medicaid expansion) or the new individual insurance market, with 95% of adults and 98% of children now covered. This has substantially reduced OHSU’s share of patient activity without any insurance coverage, from approximately 5% to 1%.

The economic trends described above are major inputs to OHSU’s financial and strategic planning. In response, the University continues to refine its efforts to maintain access for Oregonians to their public academic health center, to accelerate the development and application of new knowledge, and to educate health professionals and scientists across disciplines to improve health and well-being. Results over the past several fiscal years show that OHSU’s financial position remains strong, with net position increasing 34% over the last three fiscal years, from $2.52 billion in June 2015 to $3.37 billion in June 2018, driven by strong operating performance, philanthropy and investment returns.

OHSU’s financial strength is further recognized by its credit ratings, Aa3/AA-/AA- confirmed during the past fiscal year with Moody’s, S&P and Fitch, respectively. The University’s disciplined budget process and long range financial planning are designed to maintain this trajectory, while continuing to invest in faculty, programs, technology and facilities consistent with a nationally ranked health sciences university. On this path, OHSU has continued to receive unwavering public and philanthropic support, as evidenced by the Knight Cancer Challenge, the OHSU Onward campaign to raise a second billion dollars, success in federal and nonfederal research awards, and continued support from the State of Oregon through biennial appropriations, capital support and Medicaid funding.

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)

Statements of Net Position

June 30, 2018 and 2017

(Dollars in thousands)

		2018	2017 (as adjusted)
Assets:			
Current assets:			
Cash and cash equivalents	$	52,918	80,770
Short-term investments		312,765	295,855
Current portion of funds held by trustee		48,893	275,447
Patients accounts receivable, net of bad debt allowances of $2,346 in 2018 and $2,759 in 2017		413,197	346,464
Student receivables		22,255	24,432
Grant and contract receivables		75,845	44,080
Interest receivable		1,204	914
Current portion of pledges and estates receivable		129,510	61,983
Other receivables, net		42,645	29,203
Inventories at cost		24,088	22,789
Prepaid expenses		32,328	27,140
Total current assets		1,155,648	1,209,077
Noncurrent assets:			
Capital assets, net of accumulated depreciation		2,009,564	1,742,740
Funds held by trustee – less current portion		12,734	12,644
Long term receivables		33,500	33,500
Long-term investments:			
Long-term investments, restricted		653,068	622,534
Long-term investments, unrestricted		1,119,813	950,890
Total long-term investments		1,772,881	1,573,424
Prepaid financing costs, net		2,163	2,615
Pledges and estates receivable – less current portion		390,704	510,511
Restricted postemployment benefit asset		1,389	—
Other noncurrent assets		16,552	10,768
Total noncurrent assets		4,239,487	3,886,202
Total assets		5,395,135	5,095,279
Deferred outflows:			
Deferred amortization of derivative instruments		8,529	9,730
Loss on refunding of debt		23,777	25,248
Pension obligation		149,247	264,399
Goodwill		639	—
Other postemployment benefits (OPEB) obligation		356	—
Total deferred outflows		182,548	299,377
Total assets and deferred outflows	$	5,577,683	5,394,656

(Continued)

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)

Statements of Net Position

June 30, 2018 and 2017

(Dollars in thousands)

		2018	2017 (as adjusted)
Liabilities:			
Current liabilities:			
Current portion of long-term debt	$	23,394	5,659
Current portion of long-term capital leases		866	845
Current portion of self-funded insurance programs liability		29,885	26,956
Accounts payable and accrued expenses		159,453	137,326
Accrued salaries, wages, and benefits		90,058	83,682
Compensated absences payable		85,111	80,582
Unearned revenue		57,428	173,344
Other current liabilities		90,244	9,289
Total current liabilities		536,439	517,683
Noncurrent liabilities:			
Long-term debt – less current portion		974,677	998,731
Long-term capital leases – less current portion		2,714	3,454
Liability for self-funded insurance programs – less current portion		38,060	35,458
Liability for life income agreements		23,975	23,933
Pension liability		424,000	526,200
Other noncurrent liabilities		34,754	31,963
Total noncurrent liabilities		1,498,180	1,619,739
Total liabilities		2,034,619	2,137,422
Deferred inflows:			
Deferred amortization of derivative instruments		7,051	3,848
Gain on refunding of debt		2,165	2,540
Life income agreements		31,919	29,120
Pending fund		81,181	74,053
Pension obligation		52,078	36,092
Other postemployment benefits (OPEB) obligation		1,379	—
Total deferred inflows		175,773	145,653
Net position:			
Net investment in capital assets		1,160,403	997,731
Restricted, expendable		813,026	842,794
Restricted, nonexpendable		249,931	231,908
Unrestricted		1,143,931	1,039,148
Total net position		3,367,291	3,111,581
Total liabilities, deferred inflows, and net position	$	5,577,683	5,394,656

See accompanying notes to financial statements.

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)

Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2018 and 2017

(Dollars in thousands)

	2018	2017 (as adjusted)
Operating revenues:		
Patient service revenue, net of bad debt adjustments of $19,064 in 2018 and $18,056 in 2017	$ 2,210,653	2,097,255
Student tuition and fees, net	73,975	69,706
Gifts, grants, and contracts	613,352	554,829
Other revenue	152,078	126,984
Total operating revenues	3,050,058	2,848,774
Operating expenses:		
Salaries, wages, and benefits	1,732,915	1,623,266
Defined benefit pension	76,587	85,277
Services, supplies, and other	901,243	828,113
Provider tax	49,600	87,766
Depreciation and amortization	151,095	146,596
Interest	28,537	29,202
Total operating expenses	2,939,977	2,800,220
Operating income	110,081	48,554
Nonoperating revenues, net:		
Investment income and gain in fair value of investments	90,823	111,940
State appropriations	37,026	35,560
Other	1,720	257
Total nonoperating revenues, net	129,569	147,757
Net income before contributions for capital and other	239,650	196,311
Other changes in net position:		
Contributions for capital and other	3,053	9,586
Nonexpendable donations	16,981	15,145
Total other changes in net position	20,034	24,731
Total increase in net position	259,684	221,042
Net position – beginning of year, as adjusted*	3,111,581	2,890,539
Adjustment due to implementation of GASB Statement No. 75	(3,974)	—
Net position – end of year	$ 3,367,291	3,111,581

*FY17 beginning net position has been reduced due to implementation of GASB Statement No. 81 by $27,737. FY17 total increase in net position has also been reduced by $1,383 from current year adjustments, for a total decrease in ending net position of $29,120.

See accompanying notes to financial statements.

OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Statements of Cash Flows

Years ended June 30, 2018 and 2017

(Dollars in thousands)

	2018	2017 (as adjusted)
Cash flows from operating activities:		
Receipts for patient services	$ 2,214,830	2,080,101
Receipts from students	76,152	69,835
Receipts of gifts, grants, and contracts	530,789	612,305
Other receipts	133,140	113,699
Payments to employees for services	(1,769,659)	(1,672,744)
Payments to suppliers	(919,627)	(907,051)
Net cash provided by operating activities	265,625	296,145
Cash flows from noncapital financing activities:		
Federal direct loan proceeds	54,447	64,896
Federal direct loan disbursements	(64,967)	(65,680)
State appropriations	37,026	35,560
Nonexpendable donations and life income agreements	9,482	13,045
Net cash provided by noncapital financing activities	35,988	47,821
Cash flows from capital and related financing activities:		
Scheduled principal payments on long-term debt	(4,503)	(25,901)
Interest payments on long-term debt	(30,276)	(36,841)
Proceeds from issuance of long-term debt	—	120,442
Repayment on debt	—	1,269
Acquisition of capital assets	(418,215)	(283,036)
Payments on capital leases	(719)	(866)
Contributions for capital and other	3,053	9,586
Net cash used for capital and related financing activities	(450,660)	(215,347)
Cash flows from investing activities:		
Purchases of investments	(4,280,745)	(2,145,428)
Proceeds from sales and maturities of investments	4,380,219	1,765,998
Interest on investments and cash balances	21,721	17,777
Net cash provided by (used for) investing activities	121,195	(361,653)
Net decrease in cash and cash equivalents	(27,852)	(233,034)
Cash and cash equivalents, beginning of year	80,770	313,804
Cash and cash equivalents, end of year	$ 52,918	80,770

(Continued)

OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Statements of Cash Flows

Years ended June 30, 2018 and 2017

(Dollars in thousands)

		2018	2017 (as adjusted)
Reconciliation of operating income to net cash provided by operating activities:			
Operating income	$	110,081	48,554
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization		151,095	146,596
Provision for bad debts		19,064	18,056
Interest expense reported as operating expense		28,537	29,202
Noncash contribution		(11,050)	(34,497)
Defined benefit pension		28,938	54,042
Net changes in assets and liabilities:			
Patient accounts receivable		(85,797)	(35,210)
Student receivables		2,177	129
Grant and contracts receivable		(21,245)	(11)
Pledges and estates receivable		52,280	44,149
Other receivables, assets, and deferred outflows		(18,938)	(10,717)
Inventories		(1,299)	(960)
Prepaid expenses		(5,188)	(702)
Accounts payable and accrued expenses		22,127	4,581
Accrued salaries, wages, and benefits		6,376	(20,371)
Compensated absences payable		4,529	2,128
Other current liabilities		80,955	3,393
Liability for life income agreements		42	(897)
Unearned revenue		(115,916)	41,786
Liability for self-funded insurance programs		5,531	(52)
Other noncurrent liabilities and deferred inflows		13,326	6,946
Net cash provided by operating activities	$	265,625	296,145
Supplemental schedule of noncash capital and related financing and investing activities:			
Unrealized change in fair value of investments	$	9,257	16,158
Loss on disposal capital assets		(296)	(254)
Prior year adjustment for GASB Statement No. 75		(3,974)	—

See accompanying notes to financial statements.

TUALITY HEALTHCARE AND SUBSIDIARIES

Consolidated Balance Sheets

June 30, 2018 and 2017

Assets		2018	2017
Current assets:			
Cash and cash equivalents	$	15,201,900	18,824,800
Short-term investments		814,800	1,032,700
Patient accounts receivable, net of allowance for uncollectible accounts of $3,354,300 and $3,678,800		26,195,400	22,115,100
Other receivables		4,975,200	8,569,900
Inventory of supplies		3,427,900	3,670,600
Prepaid expenses and other		1,994,500	2,920,500
Current portion of assets whose use is limited		954,000	934,900
Total current assets		53,563,700	58,068,500
Assets whose use is limited:			
Board-designated funds		38,305,400	37,051,400
Under bond indenture agreement – held by Trustee		900	900
Donor-restricted – specific purpose		4,408,900	3,669,000
Donor-restricted – endowment		2,788,000	2,784,200
Required for current liabilities		(954,000)	(934,900)
Total assets whose use is limited		44,549,200	42,570,600
Property and equipment:			
Property and equipment, net of accumulated depreciation and amortization		49,402,300	43,538,800
Other assets:			
Other receivables – noncurrent		1,315,400	435,600
Investments in unconsolidated affiliates		3,023,200	2,864,700
Deferred compensation plan		2,265,300	2,152,000
Cash value of life insurance		502,700	474,200
Deferred costs and other		230,200	540,300
Intangible assets		1,747,300	1,824,000
Goodwill		318,500	318,500
Total other assets		9,402,600	8,609,300
Total assets	$	156,917,800	152,787,200

TUALITY HEALTHCARE AND SUBSIDIARIES

Consolidated Balance Sheets

June 30, 2018 and 2017

Liabilities and Net Assets	2018	2017
Current liabilities:		
Accounts payable	$ 14,222,000	11,591,700
Accrued payroll and employee benefits	11,341,400	12,812,400
Estimated liabilities for Medicare and Medicaid settlements	562,300	478,100
Long-term debt due within one year	1,191,900	1,052,900
Accrued bond interest payable	104,000	109,900
Total current liabilities	27,421,600	26,045,000
Long-term liabilities:		
Long-term debt, net of amount due within one year	14,092,900	14,713,400
Liability for pension benefits	41,420,700	48,726,200
Other long-term liabilities	11,892,200	7,584,900
Total long-term liabilities	67,405,800	71,024,500
Total liabilities	94,827,400	97,069,500
Net assets:		
Unrestricted	54,733,400	49,255,300
Temporarily restricted by donors	4,569,000	3,678,200
Permanently restricted by donors	2,788,000	2,784,200
Total net assets	62,090,400	55,717,700
Total liabilities and net assets	$ 156,917,800	152,787,200

See accompanying notes to consolidated financial statements.

TUALITY HEALTHCARE AND SUBSIDIARIES

Consolidated Statements of Operations

For the years ended June 30, 2018 and 2017

		2018	2017
Net patient service revenue:			
Patient service revenue (net of contractual allowances and discounts)	$	188,998,200	186,240,100
Provision for bad debts		(11,893,900)	(11,385,200)
Total net patient service revenue		177,104,300	174,854,900
Other revenue:			
OHSU support		7,235,700	10,559,500
Other revenue		9,493,200	12,524,700
Total other revenue		16,728,900	23,084,200
Total revenue		193,833,200	197,939,100
Operating expenses:			
Salaries and wages		85,211,100	92,751,700
Employee benefits		21,824,400	23,500,200
Supplies and other expenses		67,247,300	60,790,100
Professional fees		11,643,900	5,294,200
Depreciation and amortization		7,408,600	7,601,100
Interest		739,300	718,200
Total operating expenses		194,074,600	190,655,500
Loss from operations		(241,400)	7,283,600
Other income:			
Realized income on investments whose use is limited by board designation		727,700	27,100
Gain on investments in affiliated companies		1,110,200	1,329,200
Gain (Loss) on disposal of property and equipment		234,700	(17,900)
Other nonoperating expenses		(35,000)	—
Total other income		2,037,600	1,338,400
Excess of revenue over expenses		1,796,200	8,622,000
Contributions for property and equipment acquisition		89,500	223,000
Change in net unrealized gain on other-than-trading securities		500,600	2,616,100
Pension-related changes		3,091,800	4,288,700
Increase in unrestricted net assets	$	5,478,100	15,749,800

See accompanying notes to consolidated financial statements.

TUALITY HEALTHCARE AND SUBSIDIARIES

Consolidated Statements of Changes in Net Assets

Years ended June 30, 2018 and 2017

	2018	2017
Unrestricted net assets:		
Excess (deficit) of revenue over expenses	$ 1,796,200	1,109,500
Contributions for property and equipment acquisition	89,500	223,000
Change in net unrealized gain on other-than-trading securities	500,600	2,616,100
Pension-related changes	3,091,800	4,288,700
Increase in unrestricted net assets	5,478,100	8,237,300
Temporarily restricted net assets:		
Gifts, grants, and bequests	1,430,500	1,171,500
Investment income	476,700	667,800
Net assets released from restrictions	(1,016,400)	(1,026,900)
Increase in temporarily restricted net assets	890,800	812,400
Permanently restricted net assets:		
Contributions for endowment funds	3,800	6,900
Increase in permanently restricted net assets	3,800	6,900
Change in net assets	6,372,700	9,056,600
Net assets, beginning of year	55,717,700	46,661,100
Net assets, end of year	$ 62,090,400	55,717,700

See accompanying notes to consolidated financial statements.

(1) Organization and Summary of Significant Accounting Policies

(a) Organization

As the only health sciences university and major academic health center in the state of Oregon (the State), Oregon Health & Science University (OHSU or the University) is dedicated to the education and training of healthcare professionals, research, patient care, outreach, and public service. In addition to the School of Medicine, School of Nursing, School of Dentistry, the joint College of Pharmacy with Oregon State University, and a new joint School of Public Health with Portland State University, OHSU comprises several other academic and research units, including the Vollum Institute for Advanced Biomedical Research, the Vaccine and Gene Therapy Institute, Oregon National Primate Research Center, OHSU Brain Institute, the Center for Research on Occupational and Environment Toxicology, Oregon Clinical and Translational Research Institute, and the Biomedical Information Communication Center. OHSU also comprises several clinical units, including OHSU Hospital (the Hospital), the OHSU Practice Plan (OPP), and the Institute on Development and Disability. Doernbecher Children's Hospital is a unit of the Hospital serving pediatric patients. The Knight Cancer Institute is the only National Cancer Institute designated cancer center in the State, and the Knight Cardiovascular Institute provides the State's most comprehensive clinical and research heart program. In addition, OHSU operates a captive insurance company domiciled in Arizona for self-insurance purposes, OHSU Insurance Company (INSCO), which is blended in the accompanying financial statements.

Pursuant to an act of the Oregon Legislature (the Act), on July 1, 1995, OHSU was restructured from one of seven component units of the Oregon University System (OUS) to an independent public corporation. OHSU remains a component unit of the State.

The majority of the real property that constitutes OHSU's main campus on Marquam Hill (and certain off-campus properties) in Portland is owned by the State. Pursuant to the Act, the State retained title of such real property and OHSU was granted exclusive care, custody, and control of such real property. To evidence this condition, the State and OHSU entered into a 99-year lease, dated July 1, 1995 (the State Lease), under which the State leased to OHSU all of the State's leasable interest in such real property. Under the terms of the State Lease, the State may terminate the State Lease if, prior to such termination, the State causes the defeasance or discharge of all then-outstanding obligations of OHSU that were issued to finance improvements on the property subject to the State Lease or to refinance obligations of OHSU to the State. Under the State Lease, improvements include completed and partially completed buildings, fixtures, structures, and other improvements constructed on the property subject to the State Lease. In addition, OHSU was granted ownership of all personal property of the University, as it existed prior to the enactment of the Act.

Oregon Health & Science University Foundation (OHSU Foundation) and Doernbecher Children's Hospital Foundation (together, the Foundations) are separately incorporated nonprofit foundations affiliated with OHSU. The primary purpose of the Foundations is to raise money for OHSU research, scientific, charitable, and educational purposes and to promote support for Doernbecher Children's Hospital. Consequently, the financial position and the changes in financial position of the Foundations are blended in the accompanying financial statements.

Additionally, the University Medical Group (UMG) is included as a blended component unit of OHSU. UMG is an Oregon public benefit corporation, organized and operated to provide billing and reporting services solely for the OPP within the School of Medicine at OHSU. The OPP management committee acts as the board of directors for UMG and is responsible for the day-to-day oversight of the clinical practice. As the board of UMG is under the supervision and control of the OPP, and therefore, OHSU, UMG is a blended component unit of OHSU.

On February 1, 2016, OHSU affiliated with Tuality Healthcare (Tuality) through the execution of a management agreement (the Tuality Agreement) between the organizations. Tuality owns and operates Tuality Community Hospital, a 167-licensed-bed acute care hospital located in Hillsboro, Oregon and Tuality Forest Grove Hospital, a 48-licensed-bed acute care hospital located in Forest Grove, Oregon. Under the Tuality Agreement, OHSU agrees to oversee the unified and integrated clinical enterprises of OHSU and Tuality as a single, integrated economic unit. OHSU and Tuality remain as separate legal entities, own their own assets, and continue to be the licensed operators of their respective facilities. Tuality is a component unit of OHSU as OHSU approves Tuality's annual operating budget. Since Tuality has a separate board of directors and they do not provide services exclusively to OHSU, they are presented as a discretely presented component unit of OHSU.

(b) Accounting Standards

The accompanying financial statements are prepared in accordance with accounting principles generally accepted in the United States of America using the accrual basis of accounting. OHSU's financial statements and note disclosures are based on all applicable Governmental Accounting Standards Board (GASB) pronouncements and interpretations. OHSU uses proprietary fund accounting.

OHSU prepares and presents its financial information in accordance with GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments* (GASB 34), known as the "Reporting Model" statement. GASB 34 established the requirements and reporting model for annual financial statements. GASB 34 requires that financial statements be accompanied by a narrative introduction and analytical overview of the reporting entity in the form of "management's discussion and analysis." This reporting model also requires the use of a direct-method cash flow statement.

OHSU has also adopted GASB Statement No. 35, *Basic Financial Statements – and Management's Discussion and Analysis – for Public Colleges and Universities – an amendment of GASB Statement No. 34*. This statement establishes accounting and financial reporting standards for public colleges and universities within the financial reporting guidelines of GASB 34.

(c) *New Accounting Pronouncements*

During the year ended June 30, 2018, OHSU adopted GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions* (GASB 75). This statement establishes standards of accounting and financial reporting for defined-benefit, other postemployment benefits (OPEB) and defined-contribution OPEB benefits that are provided to the employees of state and local governmental employers through OPEB plans that are administered through trusts or equivalent arrangements. GASB 75 also establishes standards of accounting and financial reporting for OPEB plans that are not administered through trusts or equivalent arrangements. While restatement of all prior periods was not practical because the actuarial information was not available, the cumulative effect of applying this statement is reported as an adjustment of beginning net position as of July 1, 2017. As of July 1, 2017, OHSU decreased beginning net position by $3,974.

Additionally, during the year ended June 30, 2018, OHSU adopted GASB Statement No. 81, *Irrevocable Split – Interest Agreements (GASB 81)*. GASB 81 provides accounting and financial reporting guidance for irrevocable split-interest agreements in which a government is a beneficiary. Irrevocable split-interest agreements are a specific type of giving arrangement used by donors to provide resources to two or more beneficiaries, including governments. GASB 81 requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement. The new criteria requires reporting of OHSU's beneficial interest in irrevocable split-interest agreements, including those held by an intermediary such as an outside trust. The Foundations have lead income rights and remainder beneficiary rights in many internally and externally managed trusts. GASB 81 requires that the lead and remainder beneficial interest received be initially recorded at fair value as a deferred inflow of resources, and then revalued at the end of each financial reporting period with the change in fair value recognized as a change in deferred inflow. There is no change to the recording of any related remainder benefit liability owed by the Foundation where they are the trustee. Implementation of GASB 81 requires the Foundations to record revenue in the period in which it receives lead interest payments and at termination of the agreement for remainder interest payments. The Foundations previously reported revenue in the period where the irrevocable split-interest agreement were established. Retrospective application of GASB 81 is required. As a result of implementing GASB 81, the Foundations recorded deferred inflows of $31,919 and $29,120 at June 30, 2018 and 2017, respectively.

(d) *Accounting Standards Impacting the Future*

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations (GASB 83),* which is effective for reporting periods beginning after June 15, 2018. The objective of GASB 83 is to provide financial statement users with information about asset retirement obligations (AROs) that were not addressed in GASB standards by establishing uniform accounting and financial reporting requirements for these obligations. GASB 83 establishes criteria for determining the timing and pattern of recognition of a liability and a corresponding deferred outflow of resources for AROs. GASB 83 requires that recognition occur when the liability is both incurred and reasonably estimable. The University is currently analyzing the impact of this statement.

In June 2017, GASB issued Statement No. 87, *Leases (GASB 87)*, which is effective for reporting periods beginning after December 15, 2019. The objective of GASB 87 is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. Under GASB 87, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. The University is currently analyzing the impact of this statement.

(e) Financial Reporting Entity

As defined by generally accepted accounting principles, the financial reporting entity consists of OHSU as the primary government and its component units, which are legally separate organizations for which the primary government is financially accountable. Financial accountability is defined as a) appointment of the voting majority of the component units' board, and either (1) the ability to impose will by the primary government or (2) the possibility that the component unit will provide a financial benefit to or impose a financial burden on the primary government, or (b) the component unit is financially dependent on and there is potential for the component unit to provide specific financial benefits to, or impose specific burdens on, the primary government.

Component units are reported as part of the reporting entity under the blended or discrete method of presentation. Blending involves merging the component unit data with the primary government. There are three situations when blending is allowed: (1) when the board of the component unit is substantially the same as that of the primary government and there is a financial benefit or burden relationship between the primary government and the component unit or management of the primary government has operational responsibility for the component unit, (2) when the component unit provides services entirely, or almost entirely, to the primary government or otherwise exclusively, or almost exclusively, benefits the primary government even though it does not provide services directly to it, or (3) the component unit's total debt outstanding, including leases, is expected to be repaid entirely or almost entirely with resources of the primary government. OHSU Foundation, Doernbecher Children's Hospital Foundation, INSCO and UMG are considered to be blended component units as they serve the primary government exclusively. All transactions between OHSU and its blended component units are eliminated upon consolidation. Tuality is presented discretely since it has separate boards of directors and it does not provide services exclusively to OHSU. It is considered a nonmajor component unit as there are no significant transactions with OHSU and there is not a significant financial benefit/burden relationship with OHSU.

Financial reports for INSCO, UMG, OHSU Foundation, and Doernbecher Children's Hospital Foundation that include financial statements and required supplementary information are publicly available. These reports, and those of Tuality, may be obtained by contacting the management of OHSU.

(f) Basis of Accounting

Basis of accounting refers to the timing of when revenues and expenses are recognized in the accounts and reported in the financial statements. OHSU reports as a proprietary fund within the governmental model. OHSU's financial statements have been prepared using the accrual basis of accounting with the economic resources measurement focus. Under this method of accounting, revenue is recognized when earned and expenses are recorded when liabilities are incurred without regard to receipt or disbursement of cash.

(g) Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates in OHSU's financial statements include patient accounts receivable allowances, liabilities related to self-insurance programs, the fair value of investments, the fair value of interest rate swap agreements, and valuation of pension liabilities.

(h) Cash and Cash Equivalents

OHSU held no cash equivalents within cash and cash equivalents at June 30, 2018 or 2017.

(i) Investments

Investments are carried at fair value. Fair values are determined based on quoted market prices, where available. Investments in joint ventures are recorded using the equity method of accounting. Alternative investments, which are not readily marketable, are carried at estimated fair values, as provided by investment managers, primarily using net asset values (NAVs) as a practical expedient. OHSU reviews and evaluates the values provided by the investment managers and agrees with the valuation methods and assumptions used in determining the fair value of the alternative investments. These estimated fair values may differ from the values that would have been used had a ready market for those securities existed.

Net unrealized gains and losses are included in the net unrealized gain (loss) in fair value of investments in nonoperating revenues in the statements of revenues, expenses, and changes in net position. Interest, dividends, and realized gains and losses on investments are included in nonoperating revenues as investment income when earned.

(j) Inventories

Inventories consist primarily of supplies in organized stores at various locations across the campus and in the Hospital. Inventories are recorded using several different methodologies dependent upon the operational use of the supplies and system capabilities. OHSU utilizes standard-cost and average-cost methodologies to record and report inventory value.

(k) Capital Assets

Capital asset acquisitions are stated at cost. Donated items are recorded on the basis of fair market value at the date of donation. OHSU capitalizes equipment additions greater than $3 and capital projects greater than $10. Maintenance, repairs, and minor replacements are expensed as incurred. When properties are retired or otherwise disposed of, the related cost and accumulated depreciation are removed from the respective accounts and any gain or loss on disposition is recorded as other in nonoperating revenue.

Interest on borrowed amounts during major construction is capitalized and amortized over the depreciable life of the related asset. During fiscal years 2018 and 2017, OHSU capitalized interest expense of approximately $8,701 and $6,500, respectively. This was net of approximately $941 and $379, respectively, of interest income on unspent project funds.

The provision for depreciation is determined by the straight-line method at rates calculated to amortize the cost of assets over the shorter of their estimated useful lives or the related lease term as follows: buildings and other improvements, 10 to 40 years; and equipment, 3 to 20 years.

(l) Net Position Classifications

Net position is classified into four net asset categories, in accordance with donor-imposed restrictions:

- Net investment in capital assets represents the depreciated value of capital purchases, net of related debt.
- Net position restricted, expendable, carries externally imposed time or purpose restrictions that expire in the future.
- Net position restricted, nonexpendable, carries externally imposed restrictions that never expire.
- Net position unrestricted carries no externally imposed restrictions.

Investment income earned on donor-restricted endowment funds in excess of the annual spending distribution is accounted for in the expendable restricted net position category.

The Foundations first apply restricted resources to an expense where an expense is incurred for a purpose for which both restricted and unrestricted funds are available.

(Dollars in thousands)

A summary of restricted funds by restriction category for fiscal years ended June 30, 2018 and 2017 is as follows:

	2018	2017
Restricted expendable:		
Research	$ 595,298	643,644
Academic support	40,720	35,794
Instruction	38,225	33,036
Capital projects and planning	52,646	51,920
Student aid	52,123	52,205
Clinical support	12,939	11,611
Institutional support	3,340	3,056
Defined-benefit OPEB	1,389	—
Other	16,346	11,528
	$ 813,026	842,794
Restricted nonexpendable:		
Research	$ 32,406	29,200
Instruction	68,620	60,005
Clinical support	429	416
Public service	4,603	4,508
Academic support	80,614	77,877
Student aid	44,316	42,585
Other	18,943	17,317
	$ 249,931	231,908

(m) Endowments

The endowment corpus is accounted for in the restricted, nonexpendable net position category and reported on the statements of net position as restricted long‑term investments. The Foundations' spending policy for endowment funds is determined by the boards of trustees and is based on a three-year moving average of the fair value of the endowment fund. The boards of trustees authorized a 4.5% distribution in the years ended June 30, 2018 and 2017.

The Foundations' management and investment of donor-restricted endowment funds are subject to the provisions of the Uniform Prudent Management of Institutional Funds Act enacted by the State in January 2008.

The endowment fund investment pool (endowment fund) held by the Foundations is the repository for funds from restricted, nonexpendable contributions where the principal amount cannot be used, but a spending distribution, described below, can be used for the designated purpose. The endowment fund also holds quasiendowment funds, which have been designated as endowment by the Foundations' boards of trustees. All interest, dividends, and changes in fair value on the endowment fund are allocated to the appropriate unrestricted or restricted net position classification as specified by the donor at the time of receipt. Endowment accounts receive spending distributions subject to the Foundations' boards of trustees approved spending policy, which provides a predetermined amount of total return that can be spent for purposes designated by the donor. All expendable income restricted by the donor is carried as restricted, expendable net position until such time as the restriction has been met. At June 30, 2018 and 2017, the fair value of investments in the endowment fund was $651,900 and $592,000, respectively. The fair value of the unspent portion of endowments in excess of corpus at June 30, 2018 and 2017 was $59,600 and $47,700, respectively.

Spending distributions were not made for certain endowment accounts during 2018 and 2017 because the market value of the individual endowment accounts dropped below the corpus. Spending distributions on these accounts will be resumed if specifically authorized by the Foundations' boards of trustees or at the time that the earnings of the endowment are sufficient to restore the corpus and support the annual spending distribution. At June 30, 2018 and 2017, the accumulated loss of $0 and $31, respectively, related to endowment accounts with market value below corpus was reflected in nonexpendable restricted net position.

(n) Federal Income Taxes

OHSU, as a division of the State, is not subject to federal income taxes of the Internal Revenue Code, except for unrelated business income.

(o) State Appropriations

The Oregon State Legislature makes an appropriation to OHSU on a biennial basis. The appropriation is recognized as nonoperating revenues over the related appropriation period as applicable eligibility requirements are met.

(p) Research Activity

Restricted grants receivable represent receivables for grant activities on which OHSU has met all applicable eligibility requirements and on which the funds are available from the granting agency. As of June 30, 2018 and 2017, the grants receivable balance was $36,025 and $18,856, respectively, and was included in grant and contract receivables in the accompanying statements of net position. The balance in unearned revenue as of year-end represents amounts advanced for which OHSU has not met all applicable eligibility requirements. As of June 30, 2018 and 2017, the grants unearned revenue balance was $31,613 and $29,133, respectively; additionally, unearned revenue for the Knight Cancer Challenge State Grant of $7,217 and $123,302 was included in unearned revenue in the accompanying statements of net position as of June 30, 2018 and 2017, respectively.

(Dollars in thousands)

(q) Operating Revenues

OHSU includes patient service revenue, student tuition and fees, gifts, grants and contracts, and other income from sales and services in operating revenues. These revenues are key components of the operations of OHSU.

(r) Net Patient Service Revenue

A summary of patient service revenues during the years ended June 30, 2018 and 2017 is as follows:

		2018	2017
Gross patient charges	$	4,958,597	4,441,078
Contractual discounts		(2,728,880)	(2,325,767)
Bad debt adjustments		(19,064)	(18,056)
Net patient service revenues	$	2,210,653	2,097,255

OHSU has agreements with third-party payors that provide for payments at amounts different from established rates. Payment arrangements include prospectively determined rates per discharge, outpatient case rates, reimbursed costs, discounted charges, and per diem payments. Net patient service revenue is reported at the estimated net realizable amounts due and determined to be collectible from patients, third-party payors, and others for services rendered and includes estimates for potential retroactive revenue adjustments under reimbursement agreements with third-party payors. Such estimates are adjusted in future periods as final settlements are determined.

A significant portion of OHSU's services are provided to Medicare, Medicaid, and Oregon Health Plan (OHP) patients under contractual arrangements. Inpatient acute care services rendered by OHSU to Medicare, Medicaid, and OHP program beneficiaries are generally reimbursed at prospectively determined rates per discharge. These rates vary according to a patient classification system that is based on clinical, diagnostic, and other factors (i.e., Medicare severity diagnosis related groups or MS DRGs). Such payments include a capital cost component and may be greater or less than the actual charges for services. Most outpatient services related to Medicare beneficiaries are reimbursed prospectively under the ambulatory payment classifications methodology. Home health services related to Medicare beneficiaries are reimbursed under a prospective payment system methodology. OHSU is reimbursed for cost reimbursable items at a tentative rate with final settlement determined after audits of OHSU's annual cost reports by the Medicare fiscal intermediary and Medicaid.

During fiscal year 2018, OHSU partnered with the State of Oregon (the State) and created an innovative collaboration leveraging significant federal funding for Oregon's Medicaid program. Through the Intergovernmental Transfer (IGT) partnership with the State this program enabled support for OHSU's research and education missions and in fiscal year 2018 the program generated $97.5 million. The legislature approved the program in the Oregon Health Authority's 2017–2019 budget and Oregon's OHSU IGT Program was approved by Centers for Medicare and Medicaid Services (CMS) and implemented on January 1, 2018. By reducing OHSU's losses from the Medicaid program, the IGT program enables OHSU to fund research and education missions. This new approach replaces several of OHSU's previous funding mechanisms and ended OHSU's participation in Oregon's provider tax.

(Dollars in thousands)

The laws and regulations governing the Medicare and Medicaid programs are complex and subject to interpretation. As a result, there is at least a reasonable possibility that estimated third-party payor settlements payable, net will change by a material amount in the near term. Net patient service revenue was increased by $104 and $410 for the years ended June 30, 2018 and 2017, respectively, as a result of final settlements of prior years' cost reports and revisions of estimates for prior years cost report settlements.

OHSU has also entered into payment agreements with certain commercial insurance carriers, health maintenance organizations, and preferred provider organizations to provide medical services to subscribing participants. The basis for payment to OHSU under these agreements includes prospectively determined rates per discharge, discounts from established charges, prospectively determined fee schedules, and certain capitated per member per month payment arrangements.

Significant concentrations of gross patient accounts receivable as of June 30, 2018 and 2017 were approximately as follows:

	2018	2017
Medicare and Medicare managed care contracts	25 %	24 %
Medicaid and OHP	20	23
Commercial and managed care insurance	53	51
Nonsponsored	2	2
	100 %	100 %

(s) *Student Tuition and Fees Revenues*

A summary of student tuition and fees revenues during the years ended June 30, 2018 and 2017 is as follows:

		2018	2017
Gross student tuition	$	86,521	82,630
Exemptions		(12,546)	(12,924)
Student tuition and fees revenues, net	$	73,975	69,706

(t) *Charity Care*

OHSU provides care to patients who meet certain criteria under its charity care policy without charge or at amounts less than its published rates. Because OHSU does not pursue collection of amounts determined to qualify as charity care, they are not reported as revenue.

(Continued)

OHSU maintains records to identify and monitor the level of charity care it provides. These records include the amount of charges forgone for services and supplies furnished under its charity care policy. Charity care provided measured as charges forgone and based on established rates was $45,537 and $39,909 in 2018 and 2017, respectively.

(u) Pledges and Estates Receivable

Pledges and estates receivable are recorded as receivables and revenues in the appropriate net asset category based upon donor-imposed restrictions and are reported at fair value at the date the promise is received. Pledges are generally received within 5 to 10 years of the date of original commitment. The majority of estates are received within one year. Pledges and estates receivable, less reserves for estimated uncollectible amounts, are discounted to their present value using rates that range from 0.30% to 4.88%.

(v) Life Income Agreements

The Foundations have been named as remainder beneficiaries for various life income agreements. Life income agreements provide for contractual payments to designated beneficiaries for a specific period, after which the remaining principal and interest revert to the Foundations. Contributions received under life income agreements are included in long-term investments, restricted, with the corresponding commitment to the beneficiary included in liability for life income agreements in the accompanying statements of net position. The Foundations have investments with a fair value of $56,500 and $53,600 as at June 30, 2018 and 2017, respectively, related to its individually managed life income agreements.

(w) Moda Note Receivable

OHSU has contracts with, and receives patient revenues from the major health plans in Oregon. OHSU's guiding principle in developing payor provider partnerships is to ensure that Oregonians continue to have access to Oregon's public health sciences university and academic health center and its affiliates and that OHSU has access to major populations of Oregon across its missions of patient care, education, research, and outreach.

Since 2013, OHSU has partnered with Moda Health Plan, Inc. (Moda) to advance population health management. In December 2014, OHSU invested $50,000 in Moda through a 10-year surplus note to help capitalize Moda's Oregon healthcare efforts. The principal balance of this note shall become due and payable in full on December 15, 2024, and the note bears interest on its unpaid principal balance at a rate equal to 4% per annum. Payment of interest and principal is subject to approval by the Oregon insurance commissioner, which is part of the Department of Consumer and Business Services (DCBS).

Moda had a large share of Oregon's new individual insurance market during the initial years of the Affordable Care Act and has significant receivables due from the federal government under the risk corridor program that was designed to encourage plans to offer individual coverage. However, it is uncertain if, or when, the federal government will pay these amounts given a recent federal appeals court ruling in June 2018, which reversed a $214,000 judgment Moda won against the federal government in the previous year. Moda's case centered on the federal government's obligations under the risk corridor program.

In light of uncertain payment of federal risk corridor receivables, higher risk from losses at Moda, and the likelihood that interest payments will be deferred, OHSU recorded a valuation reserve of $16,500 against the surplus note receivable as of June 30, 2015. In February 2016, DCBS issued a consent order requiring Moda to sell a variety of assets and take steps to improve its financial position. In June 2017, as a result of Moda completing several transactions to generate the capital needed to meet regulatory standards, together with Moda reducing its risk by withdrawing from some markets, DCBS lifted the consent order. However, the Oregon insurance commissioner has not allowed payment of interest under the surplus note during 2018 or 2017 based on Moda's financial position and historical negative operating results.

OHSU reviewed the valuation of the note as of June 30, 2018 and 2017 and has retained the current net valuation of $33,500, which represents 1.00% and 1.07% of the University's total net position as of June 30, 2018 and June 30, 2017, respectively.

(2) Cash and Investments

OHSU holds substantially all of its cash, cash equivalents, and investment balances at financial institutions. OHSU's cash is insured by the Federal Deposit Insurance Corporation subject to standard limits. Additionally, a portion of cash and cash equivalents are collateralized deposits as required under the Oregon Revised Statutes (ORS).

OHSU's investment policies are approved by the board of directors and are accounted for as prescribed by GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External*

(Dollars in thousands)

Investment Pools. Changes in the fair value of investments are included in nonoperating revenues. The composition of investments at fair value at June 30, 2018 and 2017 is as follows:

		2018	2017
Short-term investments:			
Cash and cash equivalents	$	409	480
Mutual funds		138,980	127,990
U.S. government securities		2,145	3,687
U.S. agency securities		785	1,712
Corporate obligations		79,924	57,893
Fixed income		90,522	104,093
		312,765	295,855
Funds held by trustee, current portion:			
Fixed income		48,893	275,447
		48,893	275,447
Funds held by trustee – less current portion:			
Fixed income		12,734	12,644
		12,734	12,644
Long-term investments – less current portion:			
Cash and cash equivalents		22,771	29,246
U.S. government securities		313,149	297,023
U.S. agency securities		21,879	28,081
Corporate obligations		406,642	323,834
Fixed income		115,823	102,291
Equities		362,749	419,322
Alternative investments		215,177	210,807
Joint ventures and partnerships		280,071	149,787
Real estate investments and other		34,620	13,033
		1,772,881	1,573,424
Total investments, all categories	$	2,147,273	2,157,370

The methods used to determine the fair value of financial instruments reflect market participant objectives and are based on the application of a valuation hierarchy. These methods are prescribed by

(Dollars in thousands)

GASB Statement No. 72, *Fair Value Measurement and Application*. The hierarchy is based on the reliability of inputs as follows:

- Level 1 – Valuation is based on quoted prices for identical financial instruments in active markets. OHSU does not adjust the quoted price for Level 1 financial instruments.
- Level 2 – Valuation is based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and independent pricing models or other model based valuation techniques using observable inputs.
- Level 3 – Certain types of financial instruments are classified as Level 3 within the valuation hierarchy because these financial instruments trade infrequently and, therefore, have little or no price transparency.

The following table presents a categorization, based on the foregoing valuation hierarchy, of OHSU's financial instruments measured at fair value as of June 30, 2018:

	Level 1	Level 2	Level 3	Fair value
Cash and money market funds	$ —	126,433	—	126,433
U.S. government securities	—	315,294	—	315,294
U.S. agency securities	—	22,664	—	22,664
Domestic equity securities	85,383	—	134	85,517
International equity securities	43,694	—	—	43,694
Commercial paper	—	9,508	—	9,508
U.S. corporate securities	—	337,807	—	337,807
Non-U.S. corporate securities	—	148,758	—	148,758
Asset-backed securities	—	58,023	—	58,023
Venture capital and private equity	—	—	47,354	47,354
Mutual funds – fixed income only	85,351	6,045	—	91,396
Municipal bonds	—	5,622	—	5,622
Other fixed income	—	1,633	—	1,633
Mutual funds – other	138,980	—	—	138,980
Real estate investments and other	1,209	1,797	5,382	8,388
	$ 354,617	1,033,584	52,870	1,441,071
Investments measured using NAV per share or its equivalent				667,293
Equity-method investments				38,909
Total assets				$ 2,147,273

(Dollars in thousands)

The following table presents a categorization, based on the foregoing valuation hierarchy, of OHSU's financial instruments measured at fair value as of June 30, 2017.

		Level 1	Level 2	Level 3		Fair value
Cash and money market funds	$	—	365,462	—		365,462
U.S. government securities		—	300,710	—		300,710
U.S. agency securities		—	29,793	—		29,793
Domestic equity securities		145,992	2	134		146,128
International equity securities		70,935	9,441	—		80,376
Commercial paper		—	9,400	—		9,400
U.S. corporate securities		—	287,061	—		287,061
Non-U.S. corporate securities		—	94,666	—		94,666
Asset-backed securities		—	43,555	—		43,555
Mutual funds – fixed income only		96,021	5,043	—		101,064
Municipal bonds		—	3,403	—		3,403
Other fixed income		—	1,316	—		1,316
Mutual funds – other		127,990	—	—		127,990
Real estate investments and other		1,129	1,951	5,424		8,504
	$	442,067	1,151,803	5,558		1,599,428
Investments measured using NAV per share or its equivalent						524,451
Equity method investments						33,491
Total assets					$	2,157,370

There were no transfers of financial instruments between Level 1 or Level 2 classifications either in 2018 or 2017. Changes in Level 3 financial instruments are as follows:

		2018	2017
Balance at beginning of year	$	5,558	6,027
Net realized losses		(132)	(202)
Net unrealized gains		108	29
Purchases		47,371	32
Sales		(35)	(4,495)
Contributions		—	4,167
Balance at end of year	$	52,870	5,558

Net realized and unrealized gains and losses on financial instruments classified as Level 3 are reported as nonoperating revenues as investment income when earned.

OHSU uses a practical expedient for the estimation of the fair value of investments in funds for which the investment does not have a readily determinable fair value. The practical expedient used by OHSU for certain financial instruments is the NAV per share. Valuations provided by fund administrators for these financial instruments consider variables such as the financial performance of underlying investments, recent sales prices and other pertinent information. The valuation is adjusted when changes to inputs and assumptions are corroborated by evidence, such as completed or pending third-party transactions in the underlying security and changes in financial results, data, or cash flows. Management or its discretionary investment partner reviews the valuations and assumptions provided by fund administrators for reasonableness and believes that the carrying amounts of these financial instruments are reasonable estimates of fair value. The following table presents information for investments where either the NAV per share or its equivalent was used to value the investments as of June 30, 2018 and 2017:

	Redemption frequency	Redemption notice period	
Public equity	Weekly to four years	3–90 days	**(1)**
Private equity	Event driven	N/A	
Natural resources	Event driven	N/A	
Real estate	Event driven	N/A	
Hedge funds	Monthly to annually	15–95 days	**(2)**

(1) Parvus has a two to four-year lockup (varies by tranche); otherwise, all are monthly or less.
Himalaya lockup expires 11/30/2019.

(2) Most are available monthly, quarterly, or annually

Domestic equities, non-U.S. equities, global equities, and natural resources funds represent investments in equities, both in the United States and international, and may include investments in developed and emerging markets.

(Dollars in thousands)

(3) Investments and Related Policies

(a) Interest Rate Risk

As of June 30, 2018 and 2017, OHSU had the following investments and maturities at fair value:

	2018				
	Maturity				
	Less than 1 year	1–5 Years	6–10 Years	More than 10 years or none	Total
Cash and money market funds	$ 123,884	2,549	—	—	126,433
U.S. government securities	4,943	301,671	7,470	1,210	315,294
U.S. agency securities	785	12,889	4,685	4,305	22,664
Domestic equity securities	—	—	—	125,746	125,746
International equity securities	—	—	—	237,002	237,002
Commercial paper	9,508	—	—	—	9,508
U.S. corporate securities	68,757	257,188	9,664	2,198	337,807
Non-U.S. corporate securities	24,352	122,196	1,965	245	148,758
Asset-backed securities	19,221	24,163	1,359	13,280	58,023
Joint ventures and partnerships	—	—	—	280,071	280,071
Mutual funds – fixed income only	32,170	26,237	21,128	10,400	89,935
Municipal bonds	87	4,058	1,015	462	5,622
Other fixed income	—	1,299	334	—	1,633
Mutual funds, other	—	—	—	138,980	138,980
Alternative investments	—	—	—	215,177	215,177
Real estate investments and other	—	—	—	34,620	34,620
	$ 283,707	752,250	47,620	1,063,696	2,147,273

(Dollars in thousands)

	2017				
	Maturity				
	Less than 1 year	1–5 Years	6–10 Years	More than 10 years or none	Total
Cash and money market funds	$ 365,237	225	—	—	365,462
U.S. government securities	76,834	210,447	13,427	—	300,708
U.S. agency securities	1,712	15,156	5,600	7,326	29,794
Domestic equity securities	—	—	—	157,328	157,328
International equity securities	—	—	—	261,995	261,995
Commercial paper	9,400	—	—	—	9,400
U.S. corporate securities	57,086	217,491	8,247	4,237	287,061
Non-U.S. corporate securities	20,062	71,662	2,943	—	94,667
Asset-backed securities	20,161	11,905	1,479	10,010	43,555
Joint ventures and partnerships	—	—	—	149,787	149,787
Mutual funds – fixed income only	53,715	18,918	20,363	8,068	101,064
Municipal bonds	52	2,111	911	330	3,404
Other fixed income	1,105	128	83	—	1,316
Mutual funds, other	—	—	—	127,990	127,990
Alternative investments	—	—	—	210,807	210,807
Real estate investments and other	—	—	—	13,032	13,032
	$ 605,364	548,043	53,053	950,910	2,157,370

OHSU held $58,023 and $43,555 of asset-backed securities collateralized primarily by auto loans, credit card receivables, and collateralized mortgage obligations as of June 30, 2018 and 2017, respectively. These securities are valued at their estimated fair values. The valuation of these securities is sensitive to principal prepayments, which may result from a decline in interest rates, and they are sensitive to an increase in average maturity, which may result from interest rate increases that lead to decreasing prepayments.

At June 30, 2018 and 2017, OHSU had certain joint ventures and partnerships, alternative investments, real estate investments, and other investments. These investments may contain elements of both credit and market risk. Such risks may include limited liquidity, absence of regulatory oversight, dependence upon key individuals, and nondisclosure of portfolio composition. Because these investments are not readily marketable, their estimated fair value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for such investments existed. Such differences could be material.

OHSU's investment policies vary based on the investment objectives of the portfolio. The operating and trustee-held portfolios seek to preserve principal with the intent of maximizing total return within appropriate risk parameters. Maturities of securities selected in these portfolios are driven by prevailing market conditions, while considering cash requirements of the organization.

The endowment portfolio, which is included in long-term investments in the accompanying statements of net position, seeks to produce a predictable and stable payout stream that increases over time while achieving growth of corpus. OHSU investment policies are established based on the investment objectives of the portfolio. Each portfolio has its own board-authorized asset allocation guidelines. The objective for the current fund is to provide a reliable source of liquidity to meet short-term working capital needs. The current fund may invest in cash, cash equivalents, fixed-income securities, equity mutual funds and exchange-traded funds, and quasiendowment within the endowment fund. The duration of the C/F one- to five-year portfolio shall be within a range of 75% to 125% of the Barclay's one- to five-year government/credit bond index. The objective for the endowment fund is to produce a predictable and stable payout stream that increases over time while achieving growth of corpus. The endowment fund may invest in cash and cash equivalents, fixed-income securities, U.S. and non-U.S. equity securities and other alternative investments. The charitable gift annuity pool seeks to produce a relatively predictable and stable payout stream that will satisfy the funds distribution obligations while achieving long-term capital appreciation of the overall fund balance. The charitable gift annuity pool may invest in cash and cash equivalents, U.S. and non-U.S. equities, fixed income, and real estate. Charitable trusts are managed to provide for the distribution of a stated income payment while attempting to achieve reasonable expected total returns. Charitable trust investment objectives and asset allocation guidelines are determined based on the individual circumstances of each trust account. Allowable investments for charitable trusts include cash and cash equivalents, U.S. and non-U.S. equities, fixed income, real estate, and commodities.

(b) Credit Risk

The operating and trustee-held portfolios require the following minimum ratings or better from Moody's or Standard & Poor's (S&P) at the date of purchase:

	Minimum Moody's rating	Minimum S&P rating
Bankers acceptances	P-1	A-1
Commercial paper	P-2	A-2
Certificates of deposit	Baa3/P-2	BBB-/A-2
Deposit notes	Baa3/P-2	BBB-/A-2
Eurodollar certificate of deposits (CD) or Eurodollar time deposits	Baa3/P-2	BBB-/A-2
Yankee CDs	Baa3/P-2	BBB-/A-2
Corporate debt	Baa3	BBB-
Foreign government and supranational debt	Baa3	BBB-
Insurance company annuity contracts and guaranteed investment contracts	A3	A-
Mortgage pass-through securities	Aaa	AAA
Structured securities, including asset-backed securities	Aaa	AAA
Pooled investments	Aa	AA
Municipal bonds (taxable or tax-exempt)	A2/P-1	A/A-1

The current fund investment policy requires minimum ratings or better from S & P's, Moody's, or Fitch as follows:

	Minimum S&P's rating	Minimum Moody's rating	Minimum Fitch rating
U.S. and foreign corporate indebtedness	BBB- or A-2	Baa3 or P-2	BBB- or F-2
Certificates of deposit	BBB- or A-2	Baa3 or P-2	BBB- or F-2
Foreign government, foreign agency, or supranational organization debt	A or A-1	A2 or P-1	A or F-1
Agency mortgage-backed securities	AAA	Aaa	AAA
Commercial mortgage-backed securities	AAA	Aaa	AAA
Asset-backed securities	AAA	Aaa	AAA
Municipal bonds	A	A2	A

At the time of purchase, securities must be rated by at least two of the three rating agencies. If the security is rated by all three agencies, the middle rating will apply. If only two ratings are available, then the lower rating will be used.

If the credit quality of a holding in the current fund declines so that it is below the level required as stated above, a decision will be made by the Investment Committee to hold or sell the security.

Investments in the charitable gift annuity pool shall have a minimum credit quality rating of Baa/BBB or an average credit rating of Baa/BBB for mutual funds or pooled funds and a minimum rating of A 1/P 1 for investments in commercial paper. The charitable trust investments generally have a minimum credit quality rating in investment grade Baa/BBB bond investments and a minimum rating of A 1/P 1 for investments in commercial paper. However, an individual trust may hold up to 9% of the portfolio in below-investment-grade investments.

(Dollars in thousands)

As of June 30, 2018 and 2017, OHSU had the following investments with credit rating at fair value:

Investment type	Credit rating S&P or equivalent	Total 2018	Total 2017
Cash and money market funds	AAA	$ 2,926	3,139
	AA-	—	1,003
	A+	1,002	—
	A-1+	3,024	2,012
	A-1	11,809	10,367
	A-2	—	1,268
	Not rated	40,595	277,657
	NA	67,077	70,017
U.S. government securities	AAA	64,850	74,534
	AA+	236,046	223,852
	AA	1,525	2,324
	AA-	2,662	—
	A+	3,618	—
	A	1,677	—
	A-	508	—
	BBB	117	—
	BBB-	1,155	—
	B	3,135	—
U.S. agency securities	AAA	7,979	12,636
	AA+	14,686	17,158
	A-1+	3,431	2,925
	A-1	4,844	5,727
	A-2	746	748
	NA	486	—
U.S. corporate securities	AAA	1,238	649
	AA+	3,718	6,326
	AA	12,545	4,054
	AA-	24,153	20,449
	A+	19,119	20,513
	A	89,137	45,808
	A-	46,955	25,559
	BBB+	54,244	82,809
	BBB	76,238	28,479
	BBB-	6,155	11,052
	BB+	—	88
	BB	1,320	73
	BB-	—	37
	B+	—	13

(Continued)

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Investment type	Credit rating S&P or equivalent	Total 2018	Total 2017
	B	$ 324	21
	Below B	37	21
	Not Rated	612	258
	n/a	2,013	1,075
Non-U.S. corporate securities	AAA	4,922	315
	AA+	—	33
	AA	—	47
	AA-	25,449	21,369
	A+	24,009	29,024
	A	55,760	37,557
	A-	8,620	11,354
	BBB+	11,145	9,238
	BBB	10,621	12,139
	BBB-	7,021	8,956
	BB+	—	629
	BB	—	525
	BB-	—	265
	B+	—	93
	B	—	151
	Below B	—	151
	A-2	—	1,493
	Not Rated	567	95
	NA	645	1,006
Asset-backed securities	AAA	37,053	24,190
	AA+	193	3,107
	AA	2,528	151
	AA-	—	61
	A+	—	36
	A	880	380
	A-	—	35
	BBB+	—	23
	BBB	156	18
	BBB-	—	84
	BB+	—	6
	BB	46	11
	BB-	—	10
	B+	—	57

(Continued)

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Investment type	Credit rating S&P or equivalent	Total 2018	Total 2017
	B	$ 50	118
	Below B	1,368	604
	A-1+	5,138	5,167
	Not rated	852	823
	NA	9,760	8,675
Mutual funds – fixed income only	AAA	56,904	60,574
	AA	4,917	6,145
	A	7,892	16,134
	BBB	8,540	8,645
	BB	3,136	3,557
	B	3,369	2,497
	Below B	2,282	2,059
	Not rated	2,893	1,452
Municipal bonds	AAA	1,874	114
	AA+	—	391
	AA	2,236	807
	AA-	—	551
	A+	—	1,540
	A	1,513	—
Other fixed income	AAA	—	6
	BBB	342	135
	BB	760	650
	B	524	508
	Below B	5	1
	Not Rated	1	16
Joint ventures and partnerships	NA	280,071	149,787
Mutual funds – other	NA	138,980	127,990
Alternative investments	NA	215,177	210,807
Real estate investments and other	NA	34,620	13,033
Domestic equity securities	NA	125,746	157,329
International equity securities	NA	237,002	261,995
		$ 2,147,273	2,157,370

(Dollars in thousands)

(c) *Concentration of Credit Risk*

OHSU's operating and trustee-held portfolios limit investments in any one issue to a maximum of 5% (10% prior to investment policy amendment adopted by the board in October 2013) depending upon the investment type, except for issues of the U.S. government, which may be held without limitation, or U.S. government agencies limited to 15% (without limit prior to policy amendment). The current fund's investment policy limits investments in any issuer or issuer as follows:

	Maximum concentration
U.S. and foreign corporate indebtedness	No more than 3% per issuer
Certificates of deposit	No more than 5% per issuer
Foreign government, foreign agency, or supranational organization debt	No more than 5% per issuer
Agency mortgage-backed securities	No more than 15% per cusip
Commercial mortgage-backed securities	No more than 5% per cusip
Asset-backed securities	No more than 5% per cusip
Municipal bonds	No more than 5% per cusip

The endowment and charitable gift annuity portfolios limit investments in any one issue to a maximum of 5%, except for issues of the U.S. government or agencies of the U.S. government or diversified mutual funds, which may also be held without limitation. The Foundations' policies relating to the charitable gift annuity pool limit investments in any one issue to a maximum of 5%, except for issues of the U.S. government and its agencies or diversified mutual funds, which may be held without limitation. The Foundations' investment policy for charitable trusts limits investments in any one issue to a maximum of 5%, except for issues of the U.S. government and its agencies or diversified mutual funds. The current fund investment policy places no limit on the amount that may be invested in any one issuer, except that a maximum of 3% may be invested in the securities of any nongovernmental issuer. As of June 30, 2018 or 2017, OHSU had no investments in excess of the thresholds discussed above.

(d) *Foreign Currency Risk*

OHSU's investment policies permit investments in international equities and other asset classes, which can include foreign currency exposure. The endowment fund allows for investments in international equities and in non-U.S. dollar–denominated bonds. The current fund allows up to 20% of the portfolio to be invested in non-U.S. sovereign or supranational issues. The charitable gift annuity pool investment policy allows up to 30% of the portfolio to be invested in international equities. The charitable trust investment policy allows up to 32% of the portfolio to be invested in international equities based on the individual circumstances of each trust account. The following table details the fair value of foreign denominated securities by currency type:

(Dollars in thousands)

Foreign currency		Value (U.S. dollar) 2018	2017
British sterling pound	$	5,265	—
Canadian dollar		7,228	3,961
Euro		4,462	3,853
Total	$	16,955	7,814

(4) Due from/to Contractual Agencies

Due from/to contractual agencies represents amounts receivable from or payable to the State Medicaid Program (Medicaid), the Federal Medicare Program (Medicare), and other contractual agencies. A summary of the balances as of June 30, 2018 and 2017 is as follows:

		Due from contractual agencies		Due to contractual agencies		Net, due from (to)	
		As of June 30, 2017	As of June 30, 2018	As of June 30, 2017	As of June 30, 2018	As of June 30, 2017	As of June 30, 2018
Medicaid	$	33,156	18,693	—	—	33,156	18,693
Intergovernmental transfer		—	77,295	—	(73,136)	—	4,159
Medicare		—	—	(4,578)	(647)	(4,578)	(647)
Other contractual agencies		10,372	4,420	—	—	10,372	4,420
	$	43,528	100,408	(4,578)	(73,783)	38,950	26,625

In 2017, OHSU worked with the state legislature and the Oregon Health Authority to build a new program that would leverage additional federal funds for the state's Medicaid program, maintain historical principles of support for OHSU's missions, and simplify the complexity of prior funding programs between OHSU and the State. The legislature approved the program in the Oregon Health Authority's 2017–2019 budget and Oregon's OHSU Intergovernmental Transfer (IGT) Program was approved by the U.S. Centers for Medicare and Medicaid Services (CMS) and implemented on January 1, 2018, with the corresponding funding payments between entities beginning in March 2018. Under this new IGT program, OHSU no longer pays the hospital tax paid by other hospitals in Oregon. Instead, because OHSU is an Oregon public corporation, it transfers funds directly to the state to be used for Oregon's Medicaid program. The federal government matches funds used in the Medicaid program on approximately a three-to-one basis.

(Dollars in thousands)

Oregon's Medicaid coordinated care organizations (CCO's) pay OHSU an additional amount per clinical service provided to patients as Quality and Access payments. These additional payments have been approved by CMS and are funded through a combination of OHSU's IGT and federal dollars. The purpose of these funds is to maintain access to the high quality unique academic health center services OHSU provides to Medicaid patients.

During fiscal year 2018, OHSU made intergovernmental transfers of $71,850 to the State of Oregon. The State of Oregon used these dollars, and the corresponding federal match, for payment of Medicaid services throughout Oregon. Oregon's Medicaid CCO's paid OHSU $113,946 through Quality and Access payments.

(5) Capital Assets

Capital assets for fiscal years ended June 30, 2018 and 2017 are listed by category below:

		2018	2017
Land and land improvements	$	83,645	79,580
Buildings and other improvements		2,123,230	2,047,035
Equipment		986,769	940,085
Construction in progress		523,114	255,019
Accumulated depreciation		(1,707,194)	(1,578,979)
Total capital assets, net	$	2,009,564	1,742,740

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The following is a summary of capital assets for the fiscal years ended June 30, 2018 and 2017:

	Balance June 30, 2017	Increases	Decreases	Balance June 30, 2018
Capital assets not depreciated:				
Land and land improvements	$ 79,580	4,065	—	83,645
Construction in progress	255,019	394,014	(125,919)	523,114
Total capital assets not depreciated	334,599	398,079	(125,919)	606,759
Other capital assets:				
Buildings and other improvements	2,047,035	76,284	(89)	2,123,230
Equipment	940,085	69,788	(23,104)	986,769
Total other capital assets	2,987,120	146,072	(23,193)	3,109,999
Less accumulated depreciation:				
Buildings and other improvements	$ (868,826)	(83,068)	89	(951,805)
Equipment	(710,153)	(68,027)	22,791	(755,389)
Total accumulated depreciation	(1,578,979)	(151,095)	22,880	(1,707,194)
Other capital assets, net	1,408,141	(5,023)	(313)	1,402,805
Total capital assets, net	$ 1,742,740	393,056	(126,232)	2,009,564

(Continued)

(Dollars in thousands)

	Balance June 30, 2016	Increases	Decreases	Balance June 30, 2017
Capital assets not depreciated:				
Land and land improvements	$ 72,435	7,145	—	79,580
Construction in progress	107,225	230,589	(82,795)	255,019
Total capital assets not depreciated	179,660	237,734	(82,795)	334,599
Other capital assets:				
Buildings and other improvements	1,982,183	64,927	(75)	2,047,035
Equipment	886,972	63,219	(10,106)	940,085
Total other capital assets	2,869,155	128,146	(10,181)	2,987,120
Less accumulated depreciation:				
Buildings and other improvements	(791,569)	(77,289)	32	(868,826)
Equipment	(650,692)	(69,307)	9,846	(710,153)
Total accumulated depreciation	(1,442,261)	(146,596)	9,878	(1,578,979)
Other capital assets, net	1,426,894	(18,450)	(303)	1,408,141
Total capital assets, net	$ 1,606,554	219,284	(83,098)	1,742,740

(6) Compensated Absences Payable

Vacation pay for classified employees is earned at 8 to 24 hours per month, depending on the length of service and classification, with a maximum accrual of up to 364 hours per employee and a maximum payment upon separation of up to 364 hours. A maximum of 192 to 288 hours of vacation can be earned per year, depending on the length of service and classification. Vacation pay for unclassified employees is earned at 14.67 hours per month, with a maximum accrual of 256 hours and a maximum payment upon separation of 176 hours. A maximum of 176 hours of vacation can be earned per year.

Sick leave is recorded as an expense when paid. Sick leave for employees is earned at the rate of 8 hours per month and a maximum of 96 hours per year, with no restrictions on maximum hours accrued. No liability exists for terminated employees.

(7) Retirement Plans

The University, excluding blended component units, offers various pension plans to all qualified employees: the State's Public Employees Retirement System (PERS), which includes a cost-sharing, defined-benefit plan and a defined-contribution plan (individual account plan – IAP), the University Pension Plan (UPP), and the Clinical Retirement Plan (CRP).

(a) Defined-Benefit Pension Plan Descriptions

PERS is a cost-sharing, multiemployer retirement system available to units of state government, political subdivisions, community colleges, and school districts, containing multiple actuarial pools. Plan assets may be used to pay the benefits of the employees of any employer that provides pensions through the plan. As of June 30, 2018, there were 904 participating employers.

PERS is administered in accordance with ORS Chapter 238, Chapter 238A, and Internal Revenue Code Section 401(a). The State's legislature has delegated authority to the Public Employees Retirement Board (PERS Board) to administer the system. The PERS Board is composed of five trustees who administer retirement (service and disability), death, and retiree health insurance benefits. All members of the PERS Board are appointed by the governor and confirmed by the state senate. The governor designates the chairperson. Statute specifies PERS Board membership must be three people with experience in business management, pension management, or investing who are not members of the PERS system; one person who is either an employee of the state in a management position or a person who holds an elective office in the governing body of a participating public employer other than the state; and one person representing public employees and retirees.

The State's PERS issues a publicly available financial report that includes financial statements and required supplementary information, including a 10-year historical trend information showing the accumulation of sufficient assets to pay benefits when due. Copies of the State's PERS's Comprehensive Annual Financial Report and Actuarial Valuations may be obtained from the PERS Web site at www.oregon.gov/pers/EMP/Pages/Actuarial-Financial-Information.aspx.

PERS comprises three separate defined-benefit groups: PERS Tier 1, PERS Tier 2, and Oregon Public Service Retirement Plan (OPSRP).

(i) Benefits Provided

The following describes the benefits provided through the PERS plan:

(1) PERS Tier 1/PERS Tier 2

(a) The Tier 1/Tier 2 plans are closed to new members hired on or after August 29, 2003.

(b) Members are provided retirement, disability, and death benefits.

(c) Vesting occurs if either of the following conditions are met, unless the account is withdrawn:

1. An active member in each of 5 calendar years

2. Reached at least 55 years of age while working in a qualifying position (age 50 for police and fire members).

(d) The retirement allowance is payable monthly for life. It may be selected from 13 retirement benefit options. These options include survivorship benefits and lump-sum refunds.

(e) The basic benefit is based on years of service and final average salary. A percentage (2.00% for police and fire employees, 1.67% for general employees) is multiplied by the number of years of service and the final average salary. Benefits may also be calculated under either a formula plus annuity (for members who were contributing before August 21, 1981) or a money match computation if a greater benefit results.

(f) Normal retirement age for general members is age 58 for Tier 1 and age 60 for Tier 2, or any age with 30 years or more of retirement credit. Normal retirement age for police and fire members is age 55, or age 50 with 25 years or more of retirement credit. Benefits are reduced if normal retirement age is not attained.

(g) Annual Cost of Living Adjustments (COLA) of up to 2% annually for service time accrued before October 1, 2013; COLA for service time after that date uses a lower rate. Service time accrued in both periods is “blended.”

(2) PERS OPSRP

(a) The OPSRP plan is open to members hired on or after August 29, 2003.

(b) Members are provided retirement, disability, and death benefits.

(c) Vesting occurs if either of the following conditions are met, unless the account is withdrawn:

1. Completion of at least 600 hours of service in each of five calendar years

2. Reached normal retirement age as an active member on that date.

(d) The retirement allowance is payable monthly for life.

(e) The basic benefit is based on years of service and final average salary. A percentage (1.8% for police and fire employees, 1.5% for general employees) is multiplied by the number of years of service and the final average salary.

(f) Normal retirement age for general members is age 65, or age 58 with 30 years or more of retirement credit. Normal retirement age for police and fire members is age 60, or age 53 with 25 years or more of retirement credit. Benefits are reduced if normal retirement age is not attained.

(g) Annual COLA of up to 2% annually for service time accrued before October 1, 2013; COLA for service time after that date uses a lower rate. Service time accrued in both periods is “blended.”

(ii) Contributions

PERS funding policy provides for monthly employer contributions at actuarially determined rates. These contributions, expressed as a percentage of covered payroll, are intended to accumulate sufficient assets to pay benefits when due. This funding policy applies to the PERS defined-benefit plan and the OPEBs.

The employer contribution rate for active employees is established by the PERS Board based upon actuarial valuations, which are performed once every two years to determine the level of employer contributions. The employer contribution rate for PERS Tier 1 and Tier 2 was 12.54% from July 1, 2015 to June 30, 2017 and 14.98% from July 1, 2017 to June 30, 2019. The employer contribution rate for OPSRP was 6.61% (OPSRP Police and Fire, 10.72%) from July 1, 2015 to June 30, 2017, and 7.86% (OPSRP Police and Fire, 12.63%) from July 1, 2017 to June 30, 2019.

Employer contribution rates during the period were based on the December 31, 2015 actuarial valuation. The rates were based on a percentage of payroll and first became effective July 1, 2017. The State and certain schools, community colleges, and political subdivisions have made lump-sum payments to establish side accounts and their rates have been reduced. OHSU made a $10,000 lump-sum payment to PERS during fiscal year 2018. Amounts contributed post measurement date, which in fiscal year 2018 included the $10,000 side account contribution, are recorded as deferred outflows in the amount of $47,087 and $30,809 for the years ended June 30, 2018 and 2017, respectively.

The defined-benefit pension plan contributions can be found in the required supplementary information.

(iii) Net Pension Liability

OHSU's proportionate share of the net pension liability for PERS as of June 30, 2018 and 2017 is $424,000 and $526,200, respectively, utilizing a June 30, 2017 and 2016 measurement date, respectively. The net pension liability for the June 30, 2018 and 2017 fiscal year-end was determined based on the results of the December 31, 2015 and December 31, 2014 actuarial valuation rolled forward to the respective measurement dates using standard actuarial procedures.

The results of the December 31, 2015 actuarial valuation reflect the Oregon Supreme Court ruling in *Moro v. State of Oregon*, issued on April 30, 2015, which reversed a significant portion of the reductions the 2013 Oregon legislature made to future system COLA through Senate bills 822 and 861.

OHSU's proportion of the net pension liability was based on an actuarial projection of the OHSU long-term share of contributions to PERS relative to the projected contributions of all participating members. OHSU's proportionate share was 3.15% for the June 30, 2017 measurement date and 3.51% for the June 30, 2016 measurement date.

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense, information about the fiduciary net position of PERS, and additions to/deductions from PERS' fiduciary net position have been determined on the same basis as they are reported by PERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with the benefit terms. Investments are reported at fair value.

(iv) Proportionate Share of Pension Expense and Deferrals Related to Pensions

OHSU's pension expense for the years ended June 30, 2018 and 2017 was $76,587 and $85,277, respectively. The pension expense, which is considered concurrent period interest cost, service cost, amortization of deferred outflows and inflows, and changes in benefit terms, has decreased since prior year.

For the year ended June 30, 2017, several assumption changes were adopted by the PERS Board, including lowering of the long-term expected rate of return to 7.5% and lowering of the assumed inflation to 2.50%. In addition, the healthy mortality assumption was changed to reflect an updated mortality improvement scale for all groups, and assumptions were updated for merit increases, unused sick leave, and vacation pay.

(Dollars in thousands)

Deferred outflows of resources and deferred inflows of resources for pensions were related to the following sources as of the fiscal years ended June 30, 2018 and 2017:

	Deferred outflow of resources		Deferred inflow of resources	
	2018	2017	2018	2017
Differences between expected and actual experience	$ 20,505	17,409	—	—
Changes of assumptions	77,288	112,226	—	—
Net difference between projected and actual earnings on pension plan investments	4,367	103,955	—	—
Changes in proportionate share	—	—	(46,547)	(29,211)
Differences between contributions and OHSU's proportionate share of system contributions	—	—	(5,531)	(6,881)
Total (prior to post-MD contributions)	102,160	233,590	(52,078)	(36,092)
Contributions subsequent to the measurement date	47,087	30,809	—	—
Gross deferred outflow (inflow) of resources	$ 149,247	264,399	(52,078)	(36,092)

The contributions made subsequent to the measurement date of $47,087 will be recognized as a reduction in the net pension liability during the year ending June 30, 2019.

Remaining amounts reported as deferred outflows of resources and deferred inflows of resources related to pension will be recognized in pension expense as follows:

Fiscal year	
2019	$ (5,310)
2020	(39,846)
2021	(23,769)
2022	17,724
2023	1,119
Total	$ (50,082)

(Dollars in thousands)

(v) Actuarial Methods and Assumptions

The following methods and assumptions were used in developing total pension liability reported as of June 30, 2018.

Valuation date	December 31, 2015
Measurement date	June 30, 2017
Experience study report	2014, published September 2015 Based on data for the experience period January 1, 2011 to December 31, 2014
Actuarial-cost method	Entry age normal
Actuarial assumptions: Inflation rate Long-term expected rate of return Discount rate Projected salary increases COLA	2.50% 7.50% 7.50% 3.50% Blend of 2% COLA and graded COLA (1.25%/0.15%) in accordance with *Moro* case decision; blend based on service
Mortality	*Healthy retirees and beneficiaries:* RP-2000 sex-distinct, generational per Scale BB, with collar adjustments and setbacks, as described in the valuation Active members: Mortality rates are a percentage of healthy retiree rates that vary by group, as described in the valuation.

	Disabled retirees: Mortality rates are a percentage (70% for males and 95% for females) of the RP-2000 sex-distinct, generational per Scale BB, disabled mortality table.

The following methods and assumptions were used in developing total pension liability as of June 30, 2017.

Valuation date	December 31, 2014
Measurement date	June 30, 2016
Experience study report	2014, published September 2015 Based on data for the experience period January 1, 2011 to December 31, 2014
Actuarial-cost method	Entry age normal
Actuarial assumptions: Inflation rate Long-term expected rate of return Discount rate Projected salary increases COLA	2.50% 7.50% 7.50% 3.50% Blend of 2.00% COLA and graded COLA (1.25%/0.15%) in accordance with *Moro* decision, blend based on service
Mortality	*Healthy retirees and beneficiaries:* RP-2000 sex-distinct, generational per Scale BB, with collar adjustments and setbacks as described in the valuation

	Active members: Mortality rates are a percentage of healthy retiree rates that vary by group, as described in the valuation. *Disabled retirees:* Mortality rates are a percentage (70% for males and 95% for females) of the RP-2000 sex-distinct, generational per Scale BB, disabled mortality table.

Actuarial valuations of an ongoing plan involve estimates of the value of projected benefits and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Experience studies are performed as of December 31 of even numbered years. The 2014 experience study, used in developing total pension liability reported as of June 30, 2018 and June 30, 2017, was based on the data for the experience period January 1, 2011 to December 31, 2014.

(vi) Discount Rate

The discount rate used to measure the total pension liability at June 30, 2017 and 2016 was 7.50%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments for PERS was applied to all periods of projected benefit payments to determine the total pension liability. The impact of a 1.00% decrease and increase in the discount rate on the net pension liability is as follows:

Discount Rate Sensitivity – Net Pension Liability
(Dollars in thousands)

OHSU’s proportionate share		1% Decrease	Current discount rate	1% Increase
June 30, 2018	$	722,573	424,000	174,337
June 30, 2017		849,637	526,200	255,863

(Dollars in thousands)

(vii) Investments

The Oregon State Treasury is the investment officer for the State. Investment standards are established in ORS 293.726 and require funds to be managed as a prudent investor would do. The Oregon Investment Council (OIC) establishes policies for the investment and reinvestment of moneys in the Oregon Public Employees Retirement Fund (OPERF).

ORS 293.701 defines the investment funds over which OIC has responsibility. Included is the OPERF, which comprises the defined-benefit pension plan, the Individual Account Program, the OPEB plans, and the deferred compensation fund. OIC establishes policies for the investment and reinvestment of moneys in the investment funds as well as the acquisition, retention, management, and disposition of investments in the investment funds. OIC is also responsible for providing an examination of the effectiveness of the investment program.

(1) Assumed Asset Allocation

The following table illustrates both the assumed and actual asset allocation.

OIC Target and Actual Investment Allocation as of June 30, 2017*

Asset class/strategy	OIC policy low range	OIC policy high range	OIC target allocation	Asset class/strategy	Actual allocation
Cash	— %	3.0 %	— %	Cash	4.1 %
Debt securities	15.0	25.0	20.0	Debt securities	19.2
Public equity	32.5	42.5	37.5	Public equity	38.8
Real estate	9.5	15.5	12.5	Real estate	11.2
Private equity	14.0	21.0	17.5	Private equity	19.4
Alternative equity	—	12.5	12.5	Alternative equity	5.3
Opportunity portfolio[1]	—	3.0	—	Opportunity portfolio[1]	2.0
Total			100.0 %	Total	100.0 %

[1] Opportunity portfolio is an investment strategy, and it may be invested up to 3% of total plan net assets.

(Dollars in thousands)

The following table illustrates both the assumed asset allocation. Deferred outflows of resources and deferred inflows of resources for pensions were related to the following sources as of the measurement date June 30, 2016:

OIC Target and Actual Investment Allocation as of June 30, 2016*

Asset class/strategy	OIC policy low range	OIC policy high range	OIC target allocation	Asset class/strategy	Actual allocation
Cash	— %	3.0 %	— %	Cash	3.9 %
Debt securities	15.0	25.0	20.0	Debt securities	20.7
Public equity	32.5	42.5	37.5	Public equity	37.9
Real estate	9.5	15.5	12.5	Real estate	12.0
Private equity	13.5	21.5	17.5	Private equity	19.5
Alternative equity	—	12.5	12.5	Alternative equity	4.1
Opportunity portfolio[1]	—	3.0	—	Opportunity portfolio[1]	1.9
Total			100.0 %	Total	100.0 %

[1] Opportunity portfolio is an investment strategy, and it may be invested up to 3% of total plan net assets.

* The OIC target allocations are based on OIC asset classes as determined by each manager's primary investment type, not the financial statement classification of individual holdings. The target allocation amounts do not include deferred compensation plan investments. The actual investment allocation is based on the financial statement investment classifications, including deferred compensation plan investments.

(2) Long-Term Expected Rate of Return

To develop an analytical basis for the selection of the long-term expected rate of return assumption, in July 2015, the PERS Board reviewed long-term assumptions developed by the consulting actuary's capital market assumptions team and the OIC investment advisers. The table below shows the actuary's assumptions for each of the asset classes in which the plan was invested at that time based on the OIC long-term target asset allocation. The OIC's description of each asset class was used to map the target allocation to the asset classes shown below. Each asset class assumption is based on a consistent set of underlying assumptions and includes adjustment for the inflation assumption. These assumptions are not based on historical returns, but instead are based on a forward-looking capital market economic model.

(Dollars in thousands)

Asset class	2018 Target allocation*	2018 Compound annual return (Geometric)
Core fixed income	8.00 %	4.00 %
Short-term bonds	8.00	3.61
Bank/leveraged loans	3.00	5.42
High-yield bonds	1.00	6.20
Large/mid cap U.S. equities	15.75	6.70
Small cap U.S. equities	1.30	6.99
Micro cap U.S. equities	1.30	7.01
Developed foreign equities	13.13	6.73
Emerging market equities	4.12	7.25
Non-U.S. small cap equities	1.88	7.22
Private equity	17.50	7.97
Real estate (property)	10.00	5.84
Real estate (REITs)	2.50	6.69
Hedge fund of funds – diversified	2.50	4.64
Hedge fund – event-driven	0.63	6.72
Timber	1.88	5.85
Farmland	1.88	6.37
Infrastructure	3.75	7.13
Commodities	1.88	4.58
Assumed inflation – mean	—	2.50
	100.00 %	

* Based on the OIC Statement of Investment Objectives and Policy Framework for the Oregon Public Employees Retirement Fund, revised as of December 3, 2014. The revised allocation was adopted at the June 26, 2015 OIC meeting.

(Dollars in thousands)

Asset class	2017 Target allocation*	2017 Compound annual return (Geometric)
Core fixed income	8.00 %	4.00 %
Short-term bonds	8.00	3.61
Bank/leveraged loans	3.00	5.42
High-yield bonds	1.00	6.20
Large/mid cap U.S. equities	15.75	6.70
Small cap U.S. equities	1.30	6.99
Micro cap U.S. equities	1.30	7.01
Developed foreign equities	13.13	6.73
Emerging market equities	4.12	7.25
Non-U.S. small cap equities	1.88	7.22
Private equity	17.50	7.97
Real estate (property)	10.00	5.84
REITs	2.50	6.69
Hedge fund of funds – diversified	2.50	4.64
Hedge fund – event-driven	0.63	6.72
Timber	1.88	5.85
Farmland	1.88	6.37
Infrastructure	3.75	7.13
Commodities	1.88	4.58
Assumed inflation – mean	—	2.50
	100.00 %	

* Based on the OIC Statement of Investment Objectives and Policy Framework for the Oregon Public Employees Retirement Fund, revised as of December 3, 2014. The revised allocation was adopted at the June 26, 2015 OIC meeting.

(b) Other Retirement Plans

In addition to the PERS defined benefit retirement plan, OHSU has three defined-contribution plans – the PERS IAP, the UPP, and the CRP.

Effective January 1, 2004, employees participating in PERS (Tier 1, Tier 2, and OPSRP) have had their 6% member contributions placed in the IAP. The IAP is a defined-contribution plan and is managed separately from the defined-benefit portion of the PERS pension plan.

Effective July 1, 1996, OHSU established the UPP. The UPP is a defined-contribution plan, which is available as an alternate to PERS for employees who are not eligible for the CRP. Employees become fully vested in employer contributions over a three- to four-year period (depending on collective bargaining agreements) or upon reaching age 50. Contribution levels are determined by the collective bargaining agreements for union represented employees and the board of directors of OHSU for noncollective bargaining employees. In fiscal years 2018 and 2017, all employer contributions to the plan were 6% of salary.

For Oregon Nurse Association (ONA) represented employees and noncollective bargaining employees, which includes faculty, research, and unclassified administrative participating in the UPP; OHSU offers a 6% employee contribution, which is employer paid and is fully vested at the time of the contribution.

In January 2016, the 6% employee contributions that OHSU funded for American Federation of State, County and Municipal Employees (AFSCME) represented employees, were eliminated per a Memorandum of Understanding of the July 19, 2015–June 30, 2019 collective bargaining agreement, which states that the Employer will discontinue the 6% employee contribution pickup for eligible employees participating in the UPP.

In July 2016, the 6% employee contributions that OHSU funded for the OHSU Police Association-represented employees, were eliminated from the July 1, 2015–June 30, 2018 collective bargaining agreement, which states that the Employer shall continue to “pick up” a 6% employee retirement plan contribution for eligible employees participating in the UPP prior to the first full-pay period following July 1, 2016, at which time the pickup will be discontinued.

(Dollars in thousands)

For employees who are members of the OPP who work in a qualifying position, OHSU offers participation in the CRP. The CRP is an employer-paid, defined-contribution plan, and contributions to this plan are fully vested at the time of the contribution. A variable contribution rate is used for employees enrolled prior to January 1, 2009. After January 1, 2009, a 12% contribution rate is used.

		2018	2017
UPP:			
Employer contribution	$	37,551	35,560
Employee contribution [1]		24,185	23,241
	$	61,736	58,801
CRP:			
Employer contribution	$	26,308	24,051
	$	26,308	24,051

(1) Of the employees' share, the employer paid $24,185 and $23,241 related to noncollective bargaining employees and ONA-represented employees in fiscal years 2018 and 2017, respectively.

OHSU offers all eligible employees, full and part time, an option to participate in one of two tax-deferred savings plans through the University Voluntary Savings Program. The 403(b) Plan is often referred to as a tax-deferred investment plan while the 457(b) Plan is referred to as a deferred compensation plan. Both plans offer a variety of investment options. The contribution and investment earnings under these plans are tax deferred, which may be accumulated by the employee for distribution at a future date. All contributions to these plans are made by the employee and are fully vested at the time of the contribution.

The Foundations have defined-contribution plans available for substantially all employees. The plans are funded through the purchase of a group annuity contract with an insurance company at a discretionary amount equal to 12% of eligible compensation. Contributions are fully vested after five years. The Foundations contributed $1,000 and $900 for the purchase of retirement annuities during the fiscal years ended June 30, 2018 and 2017, respectively.

(8) Postemployment Benefits Other than Pensions (OPEB)

OHSU administers a single-employer, defined-benefit healthcare plan for qualified employees and postemployment healthcare for retiring employees eligible to receive medical coverage. Additionally, for eligible PERS members, PERS administers the Retirement Health Insurance Account (RHIA) cost-sharing, multiple-employer defined-benefit OPEB plan.

(Dollars in thousands)

(a) Single-Employer, Defined-Benefit Plans

(i) Plan Description

OHSU provides retiree health program coverage to current and future retirees of OHSU who qualify for retirement. Members who terminate prior to retirement eligibility or are not participating in the plan at retirement are not eligible to participate in the program. The employee must be actively enrolled in an OHSU medical plan at the time of separation from OHSU.

No assets are accumulated in a trust that meets the criteria in paragraph 4 of GASB Statement No. 75.

(ii) Employees Covered by Benefit Terms

The plan provides access for retiring employees to OHSU's employee medical plans at the same premium rates assessed to active employees. As of the measurement date of October 1, 2017, the following employees were covered by the benefit terms.

	October 1, 2017
Active employees	13,018
Retired members and others, receiving benefits	101
Total participants	13,119

(iii) Benefit Payments

Benefit payments made for the fiscal year end June 30, 2018 were $663.

(iv) Total OPEB Liability

The total OPEB liability as of June 30, 2018 is $12,506 determined by an actuarial valuation as of October 1, 2017 and is included in other noncurrent liabilities in the accompanying statements of net position.

(Dollars in thousands)

(v) Actuarial Assumptions and Other Inputs

The following methods and assumptions were used in developing the total OPEB liability.

Fiscal year ending	June 30, 2018
Valuation date	October 1, 2017
Measurement date	October 1, 2017
Reporting date	June 30, 2018
Experience study report	2016 Oregon PERS Experience Study Based on January 1, 2013 to December 31, 2016
Inflation	2.50 %
Discount rate	3.64

(vi) Expense and Deferred (Inflows)/Outflows of Resources Related to OPEB

The OPEB expense, which is considered concurrent period interest cost, service cost, amortization of deferred outflows and inflows, and effect of plan changes, was $1,140 for the year ended June 30, 2018.

As of June 30, 2018 the deferred inflows and outflows of resources were as follows:

	Deferred outflow of resources	Deferred inflow of resources
Deferred inflows/outflow of resources:		
Differences between expected and actual experience	$ —	—
Changes of assumptions	—	(709)
Total (prior to post measurement date contributions)	—	(709)
Contributions made subsequent to measurement date	205	—
Gross deferred outflow/(inflow) of resources as of June 30, 2018	$ 205	(709)

The contributions made subsequent to the measurement date of $205 will be recognized as a reduction in the total OPEB liability during the year ending June 30, 2019.

(b) Cost-Sharing, Multiple-Employer Defined-Benefit Plans

(i) Plan Description

ORS 238.420 established the RHIA. RHIA is a cost-sharing, multiple-employer OPEB plan for 904 participating employers. The plan was closed to new entrants hired on or after August 29, 2003.

The State's PERS issues a publicly available financial report that includes financial statements and required supplementary information, including a 10-year historical trend information showing the accumulation of sufficient assets to pay benefits when due. Copies of the Oregon Public Employees Retirement System's Comprehensive Annual Financial Report and Actuarial Valuations may be obtained from the PERS Web site at: www.oregon.gov/pers/Pages/Financials/Actuarial-Financial-Information.aspx.

(ii) Benefits Provided

The plan authorizes a payment of up to sixty dollars from RHIA toward the monthly cost of health insurance for eligible PERS members.

(iii) Contributions

Contributions are advance-funded on an actuarially determined basis. The contractually required contributions for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 are 0.43% of all PERS-covered salaries to amortize the unfunded actuarial accrued liability and 0.07% of PERS-covered salaries for Tier One and Tier Two members normal cost portion of RHIA benefits. These rates were based on the December 31, 2015 actuarial valuation.

Contributions to the OPEB plan from OHSU were $1,656 and $1,545 for the years ended June 30, 2018 and June 30, 2017, respectively. Employees are not required to contribute to the OPEB plan.

(iv) OPEB Asset/(Liability), OPEB Expense/(Income), and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At fiscal year ended June 30, 2018, OHSU reported an asset of $1,389 for its proportionate share of the net OPEB asset/(liability). The net OPEB asset/(liability) was measured as of June 30, 2017 and the total OPEB asset/(liability) used to calculate the net OPEB asset/(liability) was determined by an actuarial valuation as of December 31, 2015. OHSU's proportion of the net OPEB asset/(liability) was based on a projection of OHSU's long-term share of contributions to the OPEB plan relative to the projected contributions of all participating members, actuarially determined. At the June 30, 2017 measurement date, OHSU's proportionate share was 3.33%.

The OPEB expense/(income), which is considered concurrent period interest cost, service cost, amortization of deferred outflows and inflows, and effect of plan changes, was $(3), for the year ended June 30, 2018. As of June 30, 2018, the deferred inflows and outflows of resources were as follows:

(Dollars in thousands)

		Deferred outflow of resources	Deferred inflow of resources
Deferred inflows/outflow of resources:			
Differences between expected and actual experience	$	—	—
Changes of assumptions			
Net difference between projected and actual earnings on investments		—	(643)
Changes in proportionate share		—	(27)
Differences between employer contributions and employer's proportionate share of system contributions		—	—
Total (prior to post measurement date contributions)		—	(670)
Contributions made subsequent to measurement date		151	—
Gross deferred outflow/(inflow) of resources as of June 30, 2018	$	151	(670)

The contributions made subsequent to the measurement date of $151 will be recognized as a reduction in the total OPEB liability during the year ending June 30, 2019.

(Dollars in thousands)

(v) Actuarial Assumptions and Other Inputs

The total OPEB liability/(asset) in the December 31, 2015 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement.

Fiscal year	June 30, 2018
Valuation date	December 31, 2015
Measurement date	June 30, 2017
Reporting date	June 30, 2018
Experience study report	2014, published September 23, 2015 Based on data for the experience period January 1, 2011 to December 31, 2014
Actuarial assumptions:	
Actuarial cost method	Entry age normal
Inflation rate	2.50 %
Long-term expected rate of return	7.50
Discount rate	7.50

(9) Long-Term Debt, Bonds, and Capital Leases

Long-term debt, including related unamortized original issue discounts and premiums and capital leases at June 30, 2018 and 2017, is as follows:

	2018	2017
Debt Service Payment Agreement (DSPA)	$ 5,864	7,657
Tenancy in Common Agreement (TIC)	25,258	25,813
Bonds payable, revenue bonds, Series 1995A	41,023	38,678
Bonds payable, revenue bonds, Series 2012A, B, C, and E	281,418	283,585
Bonds payable, revenue bonds, Series 2015A and B	138,380	139,460
Bonds payable, revenue bonds, Series 2015C	100,000	100,000
Bonds payable, revenue bonds, Series 2016A and B	269,015	270,012
Bonds payable, revenue bonds, Series 2017A and B	120,152	120,369
Local improvement district agreements	16,961	18,816
Capital leases	3,580	4,299
Less current portion of debt and capital leases	(24,260)	(6,504)
	$ 977,391	1,002,185

(a) *Debt Service Payment Agreement*

OHSU became an independent public corporation pursuant to an act of the Oregon Legislative Assembly in 1995 (the Act). Pursuant to the Act, OHSU assumed liability for outstanding indebtedness of the State previously incurred for the benefit of OHSU. To evidence this obligation, OHSU and the Oregon State Board of Higher Education (on behalf of the State of Oregon) entered into a DSPA, dated as of July 1, 1995, as subsequently amended (the State DSPA), pursuant to which OHSU makes payments to the State in amounts sufficient to pay when due all principal, interest, and any other charges with respect to such previously issued debt. In fiscal year 2017, the State refunded a portion of the 2007 Bonds included as part of the State DSPA with the 2017 Series I Bonds, which resulted in decreased debt service payments over time. Payment under the terms of the DSPA by OHSU represents full satisfaction of any legal obligation related to such outstanding indebtedness.

(b) *Tenancy in Common Agreement – Robertson Life Sciences Building*

During fiscal year 2011, OHSU entered into a joint construction project with the Oregon State Board of Higher Education (previously referred to as Oregon University System) to build the Robertson Life Sciences Building (previously referred to as the Collaborative Life Sciences Building) on OHSU's Schnitzer Campus located in Portland's South Waterfront to be jointly owned, developed, and operated collaboratively with Portland State University and Oregon State University. As partial consideration for OHSU's receipt of 50% undivided percentage interest in the tenancy in common of the Robertson Life Sciences Building, OHSU agreed to pay to the State one half of each assigned scheduled fixed-rate Series 2011F and G State Bonds debt service issued to fund the construction of the project. Subsequently, in fiscal year 2017, the State refunded a portion of the 2011 Series G Bonds with the 2017 Series I Bonds, which resulted in decreased debt service payments over time. Payments under the terms of the TIC by OHSU represents full satisfaction of any legal obligation related to such outstanding indebtedness.

(c) *Bonds Payable*

During fiscal year 1996, OHSU issued its first Insured Revenue Bonds Series A and B (1995 Revenue Bonds), which were partially refunded in fiscal years 2005 and 2012. The remaining outstanding 1995 Revenue Bond maturities are due July 1, 2018 through July 1, 2021 requiring semiannual interest payments with outstanding rate of 5.75%. Under the terms of the outstanding 1995 Revenue Bonds, OHSU is required to maintain funds held by a trustee for debt service reserve requirements for these bonds in amounts sufficient to pay specified principal and interest payments. The 1995 Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenue. Pursuant to the Oregon Uniform Revenue Bond Act, the 1995 Revenue Bonds are not general obligation bonds and are payable solely from the revenue pledged.

In fiscal year 2012, as part of a comprehensive bond portfolio restructuring, OHSU issued refunding Revenue Bonds, Series 2012A, Series 2012C, and Series 2012D, which refinanced over 50% of its existing outstanding debt portfolio. The Series 2012A was issued as fixed-rate bonds with remaining outstanding maturities due July 1, 2018 through July 1, 2028 requiring semiannual interest payments with outstanding rates ranging from 3.0% to 5.0%. The Series 2012C was issued as variable rate bond with remaining outstanding maturities due July 1, 2017 through July 1, 2027. The Series 2012D was issued as direct placement variable rate bonds and subsequently refunded with a new Series 2015B in fiscal year 2015. In fiscal year 2013, Series 2012E was issued as fixed-rate bonds with maturities due beginning July 1, 2023 to July 1, 2032 requiring semiannual interest payments with rates ranging from 4.0% to 5.0%. The 2012 Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2012 Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

Additionally, in fiscal year 2012, during the restructuring process, OHSU simultaneously issued $85,570 of new tax-exempt variable rate revenue bonds, the Series 2012B-1, 2012B-2, and 2012B-3 to pay for certain costs of construction and other costs of issuance for the expanded CLSB Skourtes Tower project, which contains the new OHSU School of Dentistry. The Series 2012B-1 and 2012B-2 were refunded with a new Series 2015A in fiscal year 2015. The remaining Series 2012B-3 bonds have maturities due beginning July 1, 2040 through July 1, 2042. The 2012 Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2012 Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

In fiscal year 2015, OHSU restructured its Series 2012B 1, 2012B 2, and 2012D variable rate bonds with the Series 2015A and 2015B refunding revenue bonds to extend and stagger renewal dates of letters of credit and direct placement expiration dates. The Series 2015A refunded the 2012B 1 and 2012B 2 bonds. The Series 2015A was issued as direct placement variable rate bonds, with maturities due beginning July 1, 2040 to July 1, 2042. The Series 2015B refunded the Series 2012D bonds. The Series 2015B was issued as direct placement variable rate bonds, with and has remaining outstanding maturities due July 1, 2018 to July 1, 2032. No economic gain or loss was incurred as a result of this restructuring. The 2015 Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2015A and 2015B Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged. In fiscal year 2016, OHSU issued the federally taxable Series 2015C Revenue Bonds in the amount of $100,000. The Series 2015C was issued as fixed-rate bonds with a maturity date of July 1, 2045 requiring semiannual interest payments at a rate of 5.0%. The proceeds from the Series 2015C will be used for general public corporation or other public purposes, including, but not limited to, financing capital expenses, noncapital expenses, and costs related to the issuance of the bonds. The 2015C Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2015C Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

In fiscal year 2016, OHSU issued the Series 2016A Revenue Bonds in the amount of $50,000. The Series 2016A was issued as direct placement bonds with maturities due beginning July 1, 2043 through July 1, 2046 requiring monthly interest payments currently calculated at a rate of 2.30%. The Series 2016A was issued for capital improvements related to the construction of a new ambulatory care tower and as a prerequisite to the receipt of state matching grant funds for the construction of a new Knight Cancer Research Building. The 2016A Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2016A Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

Additionally in fiscal year 2016, OHSU issued the Series 2016B Revenue Bonds in the amount of $199,835. The Series 2016B was issued as fixed-rate bond with maturities due beginning July 1, 2028 through July 1, 2046 requiring semiannual interest payments with outstanding interest rates ranging from 2.5% to 5.0%. The Series 2016B was issued to advance refund the Series 2009A and for capital improvements related to the construction of a new ambulatory care tower and as a prerequisite to the receipt of state matching grant funds for the construction of a new Knight Cancer Research Building. The 2016B Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2016B Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

The Series 2009A Revenue Bonds, which were advance refunded in fiscal year 2016, were fixed rate bonds with maturities due beginning July 1, 2033 through July 1, 2039. The amount of in-substance defeased debt outstanding as of June 30, 2018 is $158,505. The Series 2009A bonds are considered to be defeased in substance and the liability related to these bonds has been removed from long-term debt. At the time of the advance refunding, funds were deposited into an irrevocable escrow account to provide for all future payments of principal and interest for the Series 2009A up to the redemption date of July 1, 2019 on which the University intends to redeem the bonds. The funds held in escrow for the refunding of the Series 2009A as of June 30, 2018 is $168,152.

While the advance refunding of the Series 2009A resulted in an economic gain for OHSU, the event generated a deferred accounting loss, which has been reflected as a deferred outflow in the financial statements. The deferred accounting loss is being amortized using the effective-interest method over the original life of the Series 2009A. The balances of the deferred accounting loss from the advance refunding of the Series 2009A as of June 30, 2018 and 2017 are $21,839 and $23,037, respectively.

In fiscal year 2017, OHSU issued the Series 2017A Revenue Bonds in the amount of $65,460. The Series 2017A Revenue Bonds were issued as fixed rate bonds with maturities due beginning July 1, 2033 through July 1, 2046 requiring semiannual interest payments with outstanding interest rates ranging from 3.5% to 5.0%. The Series 2017A Revenue Bonds were issued for capital improvements related to the construction of a new ambulatory care tower and as a prerequisite to the receipt of State matching grant funds for the construction of a new Knight Cancer Research Building. The 2017A Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2017A Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

(Dollars in thousands)

Additionally, in fiscal year 2017, OHSU issued the Series 2017B Revenue Bonds in the amount of $50,000. The Series 2017B Revenue Bonds were issued as direct placement bonds with a maturity date of July 1, 2047, requiring monthly interest payments currently calculated at a rate of 1.90%. The Series 2017B Revenue Bonds were issued for capital improvements related to the construction of a new ambulatory care tower and as a prerequisite to the receipt of state matching grant funds for the construction of a new Knight Cancer Research Building. The 2017A Revenue Bonds are limited obligations of OHSU and are secured by OHSU's gross revenues. Pursuant to the Oregon Uniform Revenue Bond Act, the 2017B Revenue Bonds are not general obligation bonds and are payable solely from revenue pledged.

OHSU has multiple credit enhancement facilities, including irrevocable standby letters of credit with U.S. Bank NA and direct placements with Wells Fargo Municipal Capital Strategies LLC and JPMorgan Chase Bank, NA as bondholder representative for DNT Asset Trust, as noted in the tables below for the periods ended June 30, 2018 and 2017:

2012BC and 2015AB variable rate debt as of June 30, 2018

Series	Facility counterparty	Principal outstanding	Facility matures	LT Ratings S&P/Moody's /Fitch	Reset
2012B-3	U.S. Bank, NA	$ 28,520	5/21/2020	AA-/Aa2/AA	Daily
2012C	U.S. Bank, NA	14,905	5/21/2020	AA-/Aa2/AA	Daily
2015A	Wells Fargo Municipal Capital Strategies LLC	57,050	5/2/2022	AA-/Aa2/AA	Monthly
2015B	JPMorgan Chase Bank NA/DNT Asset Trust	82,410	5/3/2027	A+/Aa3/AA-	Monthly
		$ 182,885			

2012BC and 2015AB variable rate debt as of June 30, 2017

Series	Facility counterparty	Principal outstanding	Facility matures	LT Ratings S&P/Moody's /Fitch	Reset
2012B-3	U.S. Bank, NA	$ 28,520	5/21/2020	AA-/Aa2/AA	Daily
2012C	U.S. Bank, NA	14,905	5/21/2020	AA-/Aa2/AA	Daily
2015A	Wells Fargo Municipal Capital Strategies LLC	57,050	5/2/2022	AA-/Aa2/AA	Monthly
2015B	JPMorgan Chase Bank NA/DNT Asset Trust	82,410	5/3/2027	A+/Aa3/AA-	Monthly
		$ 182,885			

(Dollars in thousands)

The letters of credit will fund any put made by bondholders that is not successfully remarketed. In the event the standby letter of credit funds a put by bondholders, no principal payments are due for 367 days.

The indenture and other loan agreements contain, among other things, provisions placing restrictions on additional borrowings and leases and require the maintenance of days cash of hand and debt service coverage ratio. Management believes that it is in compliance with its debt covenants.

(d) Local Improvement District Assessments

OHSU initially entered into various local improvement district agreements (LIDs) with the City of Portland, Oregon during fiscal years 2007 and 2008 for real improvements to Portland's South Waterfront District, of which $30,000 of the initial debt is considered to be nonrecourse obligations to OHSU. During fiscal year 2012, OHSU entered into additional LIDs with the City of Portland for real improvements to the same Portland South Waterfront District for $4,807. All outstanding LID debt is scheduled to be repaid in semiannual installments, with final maturities through fiscal year 2029 and interest rates ranging between 4.19% and 4.71%. The total outstanding balances due as of June 30, 2018 and 2017 are $16,961 and $18,816, respectively, and have been included in long-term debt in the statements of net position.

(e) Interest Rate Swap Agreement

As of June 30, 2018, OHSU held one interest rate swap agreement with Wells Fargo Bank, NA. The balances of OHSU's swap as of June 30, 2018 and 2017 are as follows:

	Notional		Fair value	
	2018	2017	2018	2017
Wells Fargo swap	$ 70,200	70,200	(6,272)	(10,592)
	$ 70,200	70,200	(6,272)	(10,592)

The notional amount of the outstanding swap with Wells Fargo Bank, NA and the principal amounts of the associated debt decline over time and terminate on July 1, 2042. The Series 2012B-3 and Series 2015A bonds are the assigned hedges under the current swap agreement with Wells Fargo Bank, NA. The swap has the option of early termination with a cash settlement. Under the swap agreement with Wells Fargo Bank, NA, OHSU makes fixed-rate interest payments of 2.51% and receives a variable-rate payment computed as 70.00% of the London Interbank Offered Rate. The fair value represents the estimated amount that OHSU would pay or receive if the swap agreement was terminated at year-end, taking into account current interest rates and the creditworthiness of the underlying counterparty. Total cash payments made to the swap counterparties were $993 and $1,391 during the years ended June 30, 2018 and 2017, respectively.

OHSU's interest rate swap agreement with Wells Fargo Bank, NA was established when OHSU entered into an International Swaps and Derivatives Association swap novation in fiscal year 2016. Previously, OHSU held two interest rate swap agreements with U.S. Bank, NA. Prior to the swap agreements with U.S. Bank, NA, OHSU held swap agreements with UBS originally established in fiscal year 2005 and subsequently novated in fiscal year 2013. The assigned hedges at the time of novation in fiscal year 2013 were the Series 2012B-1, Series 2012B-2, and Series 2012B-3 Bonds. Subsequently, the Series 2012B-1 and 2012B-2 Bonds were refunded with the Series 2015A Bonds in fiscal year 2015, at which point the Series 2012B-3 and Series 2015A Bonds were established as the new assigned hedges. The Series 2012B-3 and Series 2015A Bonds are the assigned hedges under the current agreement with Wells Fargo Bank, NA.

Management has evaluated the effectiveness of the current hedges assuming hybrid instruments; each swap consists of a companion debt instrument, amortized using the effective-interest method, representing the value of the swap at the inception of the current hedge, and a hedging instrument, amortized using the effective-interest method, representing the hypothetical value of the swap had it held no value at the inception of the hedge.

The companion debt instrument for the Wells Fargo Bank, NA swap was determined at the date of novation in fiscal year 2017 and is reported in other liabilities. The liability is being amortized over the remaining term of the swap agreement on an effective-interest basis as an offset to interest expense. The value of the companion debt instrument as of June 30, 2018 and 2017 is $14,501 and $15,130, respectively. The value of the debt instrument is offset by deferred amortization of debt instruments, a deferred outflow, which is amortized on an effective-interest method and has a balance of $8,529 and $9,730 as of June 30, 2018 and 2017, respectively.

The on-market value portion of the hedging derivative instrument for the Wells Fargo Bank, NA swap is recorded in other noncurrent liabilities, with an offsetting balance recorded in either deferred outflows or deferred inflows dependent on the fair value as of fiscal year-end. Any changes to the value of the hedging instruments are recorded by increasing or decreasing the statements of net position accounts. During the current fiscal year, the total value changed from a liability and corresponding deferred outflow to an asset and corresponding deferred inflow. The total value recorded is an asset of $7,051 and $3,848 as of June 30, 2018 and 2017, respectively.

OHSU is exposed to swap credit risk, which is the risk that the counterparty will not fulfill its obligation. As of June 30, 2018 and 2017, the counterparties' long-term credit ratings were A+- from Standard & Poor's, Aa2 from Moody's, and AA- from Fitch. Additionally, the swap exposes OHSU to basis risk, which is the risk that arises when the relationship between the rates on the variable rate bonds and the swap formulas noted above vary from historical norms. If this occurs, swap payments received by OHSU may not fully offset its bond interest payments. As these rates change, the effective synthetic rate on the bonds will change.

(Dollars in thousands)

OHSU may be additionally responsible for posting collateral based on its credit ratings and if the total swap liability exceeds a predetermined value on its reporting date. Based on current credit ratings for OHSU and the current market value of the swap, OHSU is not required to post any collateral at this time.

OHSU or the counterparty may terminate the swaps if the other party fails to perform under the terms of the contracts.

(f) Capital Leases

OHSU has entered into agreements for the lease of certain equipment and vehicles. Amortization of the capitalized value of these assets is included in depreciation and amortization expense on the statements of revenues, expenses, and changes in net position. Future minimum lease payments under these agreements are as follows:

Year ending June 30:		
2019	$	985
2020		967
2021		948
2022		948
2023		16
		3,864
Less amount representing interest		(284)
		3,580
Less current portion		(866)
	$	2,714

(g) Summary of Long-Term Debt, Bonds, and Capital Leases

Long-term debt listed on the accompanying statements of net position comprises outstanding state DSPA and TIC agreements, revenue bonds, and City of Portland Local Improvement District agreements totaling $998,071 and $1,004,390 as of June 30, 2018 and 2017, respectively. Included in long-term debt are unamortized net original issue discounts and premiums of $41,651 and $44,858 and accreted interest for the DSPA and 1995 Revenue Bonds of $32,942 and $31,551 as of June 30, 2018 and 2017, respectively. Interest is accreted on the DSPA and the 1995 Revenue Bonds from the date the obligations were issued until maturity using the effective-interest method.

The issuance cost of obtaining debt is deferred and amortized over the term of the related debt using the effective-interest method and is listed as prepaid finance costs on the accompanying statements of net position.

(Dollars in thousands)

Principal and interest payments under the DSPA, the various revenue bond obligations, and the local improvement district agreements are as follows:

		Principal	Interest	Total
Year(s) ending June 30:				
2019	$	14,488	43,368	57,856
2020		14,836	43,162	57,998
2021		14,834	42,882	57,716
2022		15,489	42,697	58,186
2023		24,922	32,393	57,315
2024–2028		126,408	148,796	275,204
2029–2033		158,630	122,830	281,460
2034–2038		127,730	90,054	217,784
2039–2043		160,513	59,317	219,830
2044–2048		265,630	23,722	289,352
	$	923,480	649,221	1,572,701

Interest on variable rate debt has been projected forward based on trailing 12-month average interest rates.

(h) Changes in Long-Term Liabilities

Changes in OHSU's total long-term liabilities during the fiscal years ended June 30, 2018 is summarized below:

		Balance June 30, 2017	Increases	Decreases	Balance June 30, 2018
Liability for self-funded insurance programs	$	62,414	30,611	(25,080)	67,945
Liability for life income agreements		23,933	5,635	(5,593)	23,975
Long-term debt		1,004,390	—	(6,319)	998,071
Long-term capital leases		4,299	126	(845)	3,580
Other noncurrent liabilities		31,963	6,699	(3,908)	34,754
Pension liability		526,200	—	(102,200)	424,000
	$	1,653,199	43,071	(143,945)	1,552,325

(Dollars in thousands)

	Balance June 30, 2016	Increases	Decreases	Balance June 30, 2017
Liability for self-funded insurance programs	$ 62,466	28,792	(28,844)	62,414
Liability for life income agreements	24,830	5,311	(6,208)	23,933
Long-term debt	926,025	123,538	(45,173)	1,004,390
Long-term capital leases	5,165	30	(896)	4,299
Other noncurrent liabilities	99,090	14,837	(7,911)	106,016
Pension liability	228,337	297,863	—	526,200
	$ 1,345,913	470,371	(89,032)	1,727,252

(10) Life Income Fund – Annuities

Assets contributed as life income agreements are recorded at their fair value. The present value of estimated future payments to beneficiaries of annuity agreements is recorded as a liability. The present values of these estimated payments were determined on the basis of published actuarial factors for the ages of the respective annuity beneficiaries. Differences between the assets contributed and the expected payments to be made to beneficiaries have been recorded as donations in the year established.

Life income contributions, including gifts, grants, and contracts in the accompanying statements of revenues, expenses, and changes in net position, are as follows for the fiscal years ended June 30, 2018 and 2017:

	2018		
	Agreements	Asset	Liability
Charitable remainder unitrusts	5	$ 2,813	949
Charitable gift annuities	6	113	54
Total	11	$ 2,926	1,003

	2017		
	Agreements	Asset	Liability
Charitable remainder unitrusts	1	$ 2	1
Charitable gift annuities	11	711	425
Total	12	$ 713	426

(Dollars in thousands)

The assets and corresponding liabilities related to life income agreements are included in long-term investments, restricted, and the liability for life income agreements in the accompanying statements of net position.

Total life income instruments held at June 30, 2018 and 2017 are as follows:

	2018		
	Agreements	Asset	Liability
Charitable remainder unitrusts	68	$ 24,136	8,685
Charitable lead unitrusts	2	21,096	8,935
Charitable remainder trust annuities	2	217	127
Charitable gift annuities	190	9,641	5,664
Life estate agreements	3	909	564
Total	265	$ 55,999	23,975

	2017		
	Agreements	Asset	Liability
Charitable remainder unitrusts	69	$ 21,771	8,485
Charitable lead unitrusts	2	19,879	8,644
Charitable remainder trust annuities	3	350	142
Charitable gift annuities	193	10,342	6,142
Life estate agreements	3	811	520
Total	270	$ 53,153	23,933

Fifteen charitable gift annuities, included above, have been reinsured with insurance carriers in order to reduce liability exposure. Under the reinsurance contracts, the future beneficiary payments are paid by the insurance carrier. To the extent the insurance carriers are unable to perform under the contract, OHSU would be responsible for payment.

(11) Funds Held in Trust by Others

The Foundations are the named beneficiaries of 43 and 44 trusts held by outside trustees as of June 30, 2018 and 2017, respectively. The reported fair market value of trust assets held by others was $50,000 and $48,200 of the years ended June 30, 2018 and 2017, respectively. The Foundations record contributions as trust distributions occur. Trust distributions of $1,800 and $2,300 were recorded as contributions during the fiscal years ended June 30, 2018 and 2017, respectively.

(Dollars in thousands)

(12) Pledges and Estates Receivables

The Foundations had the following pledges and estates receivable as of June 30, 2018 and 2017:

	2018	2017
Pledges maturing within 1 year	$ 128,449	62,296
Pledges maturing within 2–10 years	417,770	547,975
	546,219	610,271
Less allowance for uncollectible pledges	(2,741)	(3,815)
	543,478	606,456
Less discount for net present value	(24,964)	(34,784)
Total net pledges receivable	518,514	571,672
Estates receivable	1,789	866
Less allowance for uncollectible estates	(89)	(44)
Total net estates receivable	1,700	822
Total pledges and estates receivable	$ 520,214	572,494

(13) Commitments and Contingencies

(a) Liability for Self-Funded Insurance Programs

Coverage for professional liability, patient general liability, and automobile liability is provided through OHSU's solely owned captive insurance company, OHSU Insurance Company. Current coverage limits are $4,200 per claim with an annual aggregate of $17,500 for professional liability and $3,000 per claim for general liabilities.

Coverage for the directors and officers liability and employment practices liability deductible is also provided through OHSU Insurance Company. Current coverage limits for claims made on or after July 1, 2014 are $1,000 for each and every claim.

Coverage for the cyber liability deductible is also provided through OHSU Insurance Company. The coverage limit for cyber liability is $250 for each and every claim.

Excess coverage and reinsurance is provided by a variety of insurers for claims that may exceed these limits. Coverage is written on a claims-made basis.

OHSU has contracted with independent actuaries to estimate the ultimate costs of settlement related to the coverage provided by OHSU Insurance Company. The liabilities are discounted at 3% in 2018 and 2017 and, in management's opinion, provide an adequate reserve for loss contingencies.

(Dollars in thousands)

In December 2007, the Oregon Supreme Court found unconstitutional certain provisions of the Oregon Tort Claims Act (OTCA) that limited OHSU's liability for the acts of its employees and agents in large damages cases.

Effective July 1, 2009, the OTCA was amended by Senate Bill 311 for events occurring on or after December 28, 2007. The new OTCA limits are as follows:

Date of event		New OTCA limit	Occurrence aggregate
12/28/2007–06/30/2010	$	1,500	3,000
07/01/2010–06/30/2011		1,600	3,200
07/01/2011–06/30/2012		1,700	3,400
07/01/2012–06/30/2013		1,800	3,600
07/01/2013–06/30/2014		1,900	3,800
07/01/2014–06/30/2015		2,000	4,000
07/01/2015–06/30/2016		2,048	4,097
07/01/2016–06/30/2017		2,074	4,147
07/01/2017–06/30/2018		2,118	4,236

The impact of this decision has been included in the liability for self-funded insurance programs in the accompanying financial statements.

In September 2013, a judgment was awarded against OHSU in a professional liability case that was in excess of the OTCA, which limits OHSU's and other Oregon public body's liability for the acts of its employees and agents. OHSU disbursed the sum of $3,000, the amount of the tort cap in place at the date of the event. In May 2016, the Oregon Supreme Court affirmed the OTCA in this case.

Effective January 1, 2017, OHSU Insurance Company affiliated with a newly formed Oregon limited liability company called OHSU Project Co., LLC (a controlled affiliate of OHSU), which comprises OHSU and other nonaffiliated healthcare providers and systems, referred to as members. The operating agreement of OHSU Project Co., LLC asserts that OHSU's membership interest or voting power with respect to OHSU Project Co., LLC may not constitute less than ten percent (10%) of the outstanding membership interests. OHSU's membership interest was 33.1% and 44.0% as of June 30, 2018 and 2017, respectively.

The OHSU Project Co., LLC's sole purpose is to purchase casualty stop-loss insurance from OHSU Insurance Company for the benefit of its members. Each provider is entitled to coverage equal to its percentage membership interest in the limited liability company. The contracted payor effectuated the health insurance products entering into a provider-networking contract with OHSU Project Co., LLC.

Insco provides to OHSU Project Co., LLC medical aggregate excess of loss coverage for its share of the medical loss ratio (MLR) risk and cedes a portion of the risk to Swiss Re. Should MLR deteriorate sufficiently so as to trigger the risk ceded to Swiss Re, then Swiss Re will be liable for 90% of OHSU Project Co., LLC's risk share, subject to a maximum liability of $1,500 with the 10% retention staying with OHSU Insurance Company.

On January 1, 2006, workers compensation coverage for all employees was placed with the SAIF Corporation in accordance with statutory requirements. The State Accident Insurance Fund also provides Employers Liability coverage in the amount of $500, without retention. The State Accident Insurance Fund policy was written as a paid loss retrospective plan until July 1, 2017 at which time it converted its coverage to a guaranteed cost plan. This paid premium is an estimate and varies with audited payroll. In addition, the State Accident Insurance Fund bills monthly for the prior year's claims paid losses. (2006 to June 2017), adding a 16.5% loss conversion factor to the paid loss costs. Six months after the policy term, and every 12 months thereafter, a retrospective evaluation is completed (for years 2006 to June 2017) to determine any additional amounts to be paid, including outstanding reserves, for claims relating to the policy year.

(b) Unemployment Compensation

Unemployment compensation claims are administered by the Oregon Employment Division pursuant to Oregon Revised Statutes. The estimated amount of future benefits payments to claimants and the resulting liability to OHSU have been reflected as accrued salaries, wages, and benefits in the accompanying statements of net position.

(c) Employee Health Programs

OHSU is self-insured for its risk of loss related to costs to insure its employees for medical, dental, and vision coverage. OHSU has utilized a third-party actuary to assist in the estimation of its liability for the employee health programs related to claims payable and those claims incurred but not yet paid or reported of approximately $16,241 and $14,835 as of June 30, 2018 and 2017, respectively. These amounts are included in current portion of self-funded insurance program liabilities in the accompanying statements of net position.

(d) Labor Organizations

Approximately 15% of OHSU's employees are nurses represented by the ONA. Approximately 38% of OHSU's employees are represented by the AFSCME, less than 1% of OHSU's employees are represented by the newly formed OHSU Police Association, for a total of 53% of OHSU's employees being represented by labor organizations. The current contract with ONA expires on June 30, 2020. The current contract with AFSCME expires on June 30, 2019. The current contract with the OHSU Police Association expires on June 30, 2021.

(e) Construction Contracts

OHSU had outstanding commitments on unexpended construction contracts totaling approximately $71,503 and $78,235 at June 30, 2018 and 2017, respectively. These commitments will be primarily funded from gifts, grants, funds held by trustee, and other investment accounts.

(Dollars in thousands)

(f) Legal Proceedings

The healthcare industry and academic medical centers are subject to numerous laws and regulations of federal, state, and local governments. These laws and regulations include, but are not limited to, laws and regulations related to licensure, accreditation, government health program participation, reimbursement for patient services, Medicare and Medicaid fraud and abuse, and laws and regulations governing the conduct of federally funded research, research involving human and animal subjects, and other facets of research. Government monitoring and enforcement activity continues with respect to possible violations of fraud and abuse laws and regulations and other laws and regulations applicable to healthcare providers and healthcare institutions, including academic medical centers. Violations of these laws and regulations could result in expulsion from government healthcare programs, together with the imposition of significant fines and penalties and repayments for patient services previously billed. Management believes OHSU is in compliance with applicable fraud and abuse laws and regulations, as well as other applicable government laws and regulations.

OHSU's compliance with the referenced laws and regulations may be subject to current or future government review and interpretation, as well as regulatory actions unknown or unasserted at this time.

OHSU is involved in litigation and is periodically the subject of regulatory inquiries in the normal course of its business. In past years, OHSU was subject to several federal healthcare audits as a part of national initiatives targeting large numbers of hospitals and academic medical centers and was the subject of government-issued subpoenas and postpayment reviews concerning specific OHSU billing practices. OHSU responded to these audits, subpoenas, and reviews, and these matters were resolved or are expected to be resolved without material adverse effect on OHSU's financial position, changes in financial position, or liquidity.

(g) Operating Leases

Leases that do not meet the criteria for capitalization are classified as operating leases, with the related rentals charged to operations as incurred.

Rental expenses under operating leases were approximately $21,720 and $20,267 in 2018 and 2017, respectively. The following is a schedule of future minimum rental commitments under operating leases as of June 30, 2018 and 2017 that have initial or remaining lease terms in excess of one year:

Year ending June 30:	
2019	$ 18,772
2020	15,602
2021	14,926
2022	13,420
2023	9,127
Thereafter	30,433
	$ 102,280

(h) Tuality Health Affiliation

On February 1, 2016, OHSU affiliated with Tuality Healthcare (Tuality) through the execution of a management agreement (the Tuality Agreement) between the organizations. Under the Tuality Agreement, OHSU agrees to oversee the unified and integrated clinical enterprises of OHSU and Tuality as a single, integrated economic unit. OHSU and Tuality remain as separate entities, own their own assets, and continue to be the licensed operators of their own facilities. Per the agreement, OHSU has guaranteed Tuality's operating income and will provide operating cash flow support. The initial term of the Tuality Agreement is 20 years and it may be renewed or extended by written agreement of the parties. The Tuality Agreement is subject to termination in the event of material breaches of the Tuality Agreement or for certain other reasons specified in the Tuality Agreement.

After February 1, 2016, OHSU guarantees operating income support in the following manner: to the extent if Tuality incurs an operating loss for any fiscal year, OHSU will provide operating support in the form of a cash payment to Tuality in an amount equal to the operating loss, which will result in Tuality's operating income being equal to zero.

If in any fiscal year, Tuality's operating cash flow, defined in the Tuality Agreement as operating income plus depreciation less regular principal payments on long-term debt and less capital spending, is negative, OHSU will provide Tuality a capital advance in the form of a cash payment to bring Tuality's operating cash flow to a balance of zero. The capital advance will be recorded on Tuality's financial statements as a payable to OHSU, and on OHSU's financial statements as a receivable from Tuality, subject to any required reserves for estimates of collectibility. Such capital advances will not bear interest and will be repayable by Tuality to OHSU from positive operating cash flow generated in future fiscal years under general guidelines specified in the Tuality Agreement.

For fiscal years 2018 and 2017, operating income support amounted to $7,236 and $10,560, respectively. The operating cash flow support, recorded as a note receivable, was $2,592 and $4,721 for the years ended June 30, 2018 and 2017, respectively. The total note receivable as of June 30, 2018 was $7,313.

(i) Adventist Health

On January 1, 2018, OHSU and Adventist Health entered into a Health System agreement, an operating agreement and an academic affiliation agreement. Under this affiliation, OHSU and Adventist Health will operate as a unified clinical system with a shared bottom line. The affiliation applies to OHSU's Portland-area clinical services and activities and Adventist Health Portland, which includes the 302-bed Adventist Health Portland Medical Center and its 34 affiliated clinics and home care and hospice services in the Portland-Vancouver metro area. The agreements do not include OHSU's nonmetro area clinical activities and services. The other 19 Adventist Health hospitals in the western United States are also excluded from the agreements. Each organization will retain its existing hospital licenses, capital assets, and employees and will not join each other's master trust indenture obligated group or otherwise guarantee each other's outstanding debt.

Each entity will continue to maintain its individual mission and culture but will together strive to transform access and the delivery of healthcare to Oregonians through a unified clinical enterprise and shared brand experience. A board of managers comprising representatives from each organization has been created to oversee the system.

The initial term of the Adventist Agreement is 20 years and it may be renewed or extended by written agreement of the parties. The Adventist Agreement is subject to termination in the event of material breaches or for certain other reasons specified in the Adventist Agreement.

The Adventist Agreement provides for the combined net operating results, including a mutually agreed-upon capital charge of the integrated Metro Health System to be apportioned to the parties consistent with the allocation method established in the Adventist Agreement. In fiscal year 2018, OHSU's allocation percentage is 90% and Adventist Health allocation percentage is 10%. The allocation percentage is used to determine the amount of the integrated Metro Health System net operating results or "net share" amount.

OHSU and Adventist Health's allocation amount is determined by multiplying the consolidated Metro Health System net operating results by such party's proportional allocation percentage, including the amount of such party's total capital charges (for the same period for which such allocation amount is determined). The result shall equal the party's net share of the Metro Health System earnings before interest, depreciation, and amortization (EBIDA).

OHSU and Adventist's net share for each period shall be compared to each party's actual metro clinical enterprise adjusted EBIDA for the same period. OHSU and Adventist Health agree that if a party's net share for a period is less than such party's metro clinical enterprise adjusted EBIDA for such period, such party shall pay to the other party the amount of the difference (net share payment). OHSU and Adventist agree that if a party's net share for a period is more than such party's metro clinical enterprise adjusted EBIDA for the same period, such party shall receive from the other party a payment in the amount of the difference (net share receivable). During the first five years of the agreement, a net share payment cap of $5,000 will be applied in any calendar year.

For fiscal year 2018, OHSU's support payment to Adventist amounted to $5,000 as the payment cap was met.

OREGON HEALTH & SCIENCE UNIVERSITY
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(14) Blended Component Units

Condensed combining statements for OHSU and its blended component units are shown below:

	2018						
	University	INSCO	UMG	OHSUF Foundation	DCH Foundation	Eliminations/ reclassifications	Total combined
Assets:							
Current assets	$ 1,037,394	9,571	10,852	156,468	5,292	(63,929)	1,155,648
Noncurrent assets:							
Capital assets, net of accumulated depreciation	2,009,125	—	176	263	—	—	2,009,564
Other noncurrent assets	733,359	48,749	—	1,362,354	85,461	—	2,229,923
Total noncurrent assets	2,742,484	48,749	176	1,362,617	85,461	—	4,239,487
Total assets	3,779,878	58,320	11,028	1,519,085	90,753	(63,929)	5,395,135
Deferred outflows	182,548	—	—	—	—	—	182,548
Total assets and deferred outflows	$ 3,962,426	58,320	11,028	1,519,085	90,753	(63,929)	5,577,683
Liabilities:							
Current liabilities	$ 514,138	833	2,964	82,036	397	(63,929)	536,439
Noncurrent liabilities	1,438,175	33,245	69	24,872	1,819	—	1,498,180
Total liabilities	1,952,313	34,078	3,033	106,908	2,216	(63,929)	2,034,619
Deferred inflows	62,673	—	—	110,885	2,215	—	175,773
Net position:							
Net investment in capital assets	1,160,140	—	—	263	—	—	1,160,403
Restricted, expendable	78,712	—	—	704,548	29,766	—	813,026
Restricted, nonexpendable	—	—	—	221,061	28,870	—	249,931
Unrestricted	708,588	24,242	7,995	375,420	27,686	—	1,143,931
Total net position	1,947,440	24,242	7,995	1,301,292	86,322	—	3,367,291
Total liabilities, deferred inflows and net position	$ 3,962,426	58,320	11,028	1,519,085	90,753	(63,929)	5,577,683

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	2017 (as adjusted)						
	University	INSCO	UMG	OHSUF Foundation	DCH Foundation	Eliminations/ reclassifications	Total combined
Assets:							
Current assets	$ 1,153,337	10,745	9,528	89,833	5,137	(59,503)	1,209,077
Noncurrent assets:							
Capital assets, net of accumulated depreciation	1,742,065	—	293	382	—	—	1,742,740
Other noncurrent assets	606,393	46,198	—	1,415,243	75,628	—	2,143,462
Total noncurrent assets	2,348,458	46,198	293	1,415,625	75,628	—	3,886,202
Total assets	3,501,795	56,943	9,821	1,505,458	80,765	(59,503)	5,095,279
Deferred outflows	299,377	—	—	—	—	—	299,377
Total assets and deferred outflows	$ 3,801,172	56,943	9,821	1,505,458	80,765	(59,503)	5,394,656
Liabilities:							
Current liabilities	$ 491,560	223	2,798	82,011	594	(59,503)	517,683
Noncurrent liabilities	1,564,249	28,788	131	24,729	1,842	—	1,619,739
Total liabilities	2,055,809	29,011	2,929	106,740	2,436	(59,503)	2,137,422
Deferred inflows	42,480	—	—	100,989	2,184	—	145,653
Net position:							
Net investment in capital assets	997,348	—	—	383	—	—	997,731
Restricted, expendable	78,302	—	—	738,054	26,437	—	842,793
Restricted, nonexpendable	—	—	—	204,499	27,410	—	231,909
Unrestricted	627,233	27,932	6,892	354,793	22,298	—	1,039,148
Total net position	1,702,883	27,932	6,892	1,297,729	76,145	—	3,111,581
Total liabilities, deferred inflows and net position	$ 3,801,172	56,943	9,821	1,505,458	80,765	(59,503)	5,394,656

(Continued)

OREGON HEALTH & SCIENCE UNIVERSITY
(A Component Unit of the State of Oregon)
Notes to Financial Statements
June 30, 2018 and 2017
(Dollars in thousands)

Condensed combining information related to revenues, expenses, and changes in net position for the years ended June 30, 2018 and 2017 is as follows:

	2018						
	University	INSCO	UMG	OHSUF Foundations	DCH Foundations	Eliminations/ reclassifications	Total combined
Operating revenues:							
Patient service revenue	$ 2,210,653	—	—	—	—	—	2,210,653
Student tuition and fees, net	73,975	—	—	—	—	—	73,975
Gifts, grants, and contracts	662,755	—	—	48,061	15,774	(113,238)	613,352
Other revenue	149,428	18,527	18,532	3,387	103	(37,899)	152,078
Total operating revenues	3,096,811	18,527	18,532	51,448	15,877	(151,137)	3,050,058
Operating expenses:							
Salaries, wages, and benefits	1,708,088	—	12,056	12,771	—	—	1,732,915
Defined-benefit pension	76,587	—	—	—	—	—	76,587
Services, supplies, and other	954,216	16,161	5,256	115,571	10,928	(151,289)	950,843
Depreciation and amortization	150,867	—	119	109	—	—	151,095
Interest	28,537	—	—	—	—	—	28,537
Total operating expenses	2,918,295	16,161	17,431	128,451	10,928	(151,289)	2,939,977
Operating income (loss)	178,516	2,366	1,101	(77,003)	4,949	152	110,081
Nonoperating revenues (expenses):							
Investment income and change in fair value of investments	24,233	(208)	2	62,031	4,765	—	90,823
State appropriations	37,026	—	—			—	37,026
Other	(297)	—	—	2,732	(715)	—	1,720
Total nonoperating revenues (expenses), net	60,962	(208)	2	64,763	4,050	—	129,569
Net income (loss) before other changes in net position	239,478	2,158	1,103	(12,240)	8,999	152	239,650
Other changes in net position:							
Contributions for capital and other	9,053	(5,848)	—	—	—	(152)	3,053
Nonexpendable donations	—	—	—	15,803	1,178	—	16,981
Total other changes in net position	9,053	(5,848)	—	15,803	1,178	(152)	20,034
Total increase (decrease) in net position	248,531	(3,690)	1,103	3,563	10,177	—	259,684
Net position – beginning of year, as adjusted	1,702,883	27,932	6,892	1,297,729	76,145	—	3,111,581
Adjustment to implementation of GASB Statement No. 75	(3,974)	—	—	—	—	—	(3,974)
Net position – end of year	$ 1,947,440	24,242	7,995	1,301,292	86,322	—	3,367,291

(Continued)

OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Notes to Financial Statements

June 30, 2018 and 2017

(Dollars in thousands)

	2017 (as adjusted)						
	University	INSCO	UMG	OHSUF Foundations	DCH Foundations	Eliminations/ reclassifications	Total combined
Operating revenues:							
Patient service revenue	$ 2,097,255	—	—	—	—	—	2,097,255
Student tuition and fees, net	69,706	—	—	—	—	—	69,706
Gifts, grants, and contracts	585,720	—	—	74,426	18,417	(123,733)	554,830
Other revenue	125,350	15,899	16,256	3,677	232	(34,430)	126,984
Total operating revenues	2,878,031	15,899	16,256	78,103	18,649	(158,163)	2,848,775
Operating expenses:							
Salaries, wages, and benefits	1,599,391	—	10,563	13,312	—	—	1,623,266
Defined-benefit pension	85,277	—	—	—	—	—	85,277
Services, supplies, and other	923,895	10,009	4,968	114,325	12,065	(149,383)	915,879
Depreciation and amortization	146,356	—	117	123	—	—	146,596
Interest	29,202	—	—	—	—	—	29,202
Total operating expenses	2,784,121	10,009	15,648	127,760	12,065	(149,383)	2,800,220
Operating income (loss)	93,910	5,890	608	(49,657)	6,584	(8,780)	48,555
Nonoperating revenues (expenses):							
Investment income and change in fair value of investments	28,739	278	2	76,513	6,408	—	111,940
State appropriations	35,560	—	—	—	—	—	35,560
Other	(255)	—	—	1,315	(803)	—	257
Total nonoperating revenues (expenses), net	64,044	278	2	77,828	5,605	—	147,757
Net income (loss) before other changes in net position	157,954	6,168	610	28,171	12,189	(8,780)	196,312
Other changes in net position:							
Contributions for capital and other	11,405	(10,599)	—	—	—	8,780	9,586
Nonexpendable donations	—	—	—	11,920	3,225	—	15,145
Total other changes in net position	11,405	(10,599)	—	11,920	3,225	8,780	24,731
Total increase (decrease) in net position	169,359	(4,431)	610	40,091	15,414	—	221,043
Net position – beginning of year, as adjusted*	1,533,524	32,363	6,282	1,257,638	60,731	—	2,890,538
Net position – end of year	$ 1,702,883	27,932	6,892	1,297,729	76,145	—	3,111,581

* FY17 beginning net position has been reduced due to implementation of GASB Statement No. 81 by $27,737. FY17 total increase in net positions has also been reduced by $1,383 from current year adjustments, for a total decrease in ending net position of $29,120.

OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Notes to Financial Statements

June 30, 2018 and 2017

(Dollars in thousands)

Condensed combining information related to cash flows for the years ended June 30, 2018 and 2017 is as follows:

	2018						
	University	INSCO	UMG	OHSUF Foundations	DCH Foundations	Eliminations/ reclassifications	Total combined
Net cash provided by (used in) operating activities	$ 292,600	2,540	992	(37,191)	6,684	—	265,625
Net cash provided by noncapital financing activities	27,837	—	—	8,000	151	—	35,988
Net cash provided by (used in) capital and related financing activities	(450,649)	—	(22)	11	—	—	(450,660)
Net cash provided by (used in) investing activities	103,608	(2,090)	—	25,572	(5,895)	—	121,195
Net change in cash and cash equivalents	(26,604)	450	970	(3,608)	940	—	(27,852)
Cash and cash equivalents, beginning of year	43,330	2,952	7,692	24,379	2,417	—	80,770
Cash and cash equivalents, end of year	$ 16,726	3,402	8,662	20,771	3,357	—	52,918

	2017 (as adjusted)						
	University	INSCO	UMG	OHSUF Foundations	DCH Foundations	Eliminations/ reclassifications	Total combined
Net cash provided by (used in) operating activities	$ 331,259	(5,230)	1,644	(33,630)	2,102	—	296,145
Net cash provided by noncapital financing activities	11,365	—	—	34,449	2,007	—	47,821
Net cash used in capital and related financing activities	(214,855)	—	(108)	(384)	—	—	(215,347)
Net cash provided by (used in) investing activities	(347,697)	6,623	—	(16,468)	(4,111)	—	(361,653)
Net change in cash and cash equivalents	(219,928)	1,393	1,536	(16,033)	(2)	—	(233,034)
Cash and cash equivalents, beginning of year	263,258	1,559	6,156	40,412	2,419	—	313,804
Cash and cash equivalents, end of year	$ 43,330	2,952	7,692	24,379	2,417	—	80,770

OREGON HEALTH & SCIENCE UNIVERSITY

(A Component Unit of the State of Oregon)

Required Supplementary Information (Unaudited)

June 30, 2018 and 2017

Required Supplementary Information – Unaudited

OHSU's Proportionate Share of the Net Pension (Asset)/Liability and Related Ratios

(Dollar amounts in thousands)

Defined-benefit pension plan[1]	2018	2017	2016	2015	2014
OHSU's proportion of the net pension (asset) liability (rounded)	3.15 %	3.51 %	3.98 %	4.26 %	4.26 %
OHSU's proportionate share of the net pension (asset) liability	$ 424,000	526,200	228,337	(96,652)	217,598
Covered payroll	337,473	326,959	345,363	365,618	378,893
OHSU's proportionate share of the net pension (asset) liability as a percentage of covered payroll	125.64 %	160.94 %	66.12 %	(26.44)%	57.43 %
Plan fiduciary net position as a percentage of the total pension liability	83.10 %	80.50 %	91.90 %	103.60 %	92.00 %

[1] Ten-year trend information will be presented prospectively.

Required Supplementary Information – Unaudited
Schedule of Defined-Benefit Pension Plan Contributions

(Dollars in thousands)

Year ended June 30[1]	2018	2017	2016	2015	2014
Contractually required contributions	$ 37,087	30,809	31,353	30,250	29,868
Contributions in relation to the contractually required contributions	47,087	30,809	31,353	37,750	37,368
Contribution excess	$ (10,000)	—	—	(7,500)	(7,500)
OHSU's covered payroll	$ 323,343	337,473	326,959	345,363	365,618
Contributions as a percentage of covered payroll	14.56 %	9.13 %	9.59 %	10.93 %	10.22 %

[1] Ten-year trend information will be presented prospectively.

See accompanying independent auditors' report.

Schedule 1

OREGON HEALTH & SCIENCE UNIVERSITY

Combining Schedules of Net Position

Year ended June 30, 2018 with comparative totals for June 30, 2017

(Dollars in thousands)

	Hospital	Other University	Total University	Foundations	Eliminations/ reclassifications	2018	2017
Assets							
Current assets:							
Cash and cash equivalents	$ 18,107	10,682	28,789	24,129	—	52,918	80,770
Short-term investments	279,684	32,672	312,356	409	—	312,765	295,855
Current portion of funds held by trustee	30,626	18,267	48,893	—	—	48,893	275,447
Patients accounts receivable, net of bad debt allowances	410,898	2,299	413,197	—	—	413,197	346,464
Student receivables	—	22,255	22,255	—	—	22,255	24,432
Grant and contract receivable	—	75,845	75,845	—	—	75,845	44,080
Interest receivable	—	—	—	1,204	—	1,204	914
Current portion of pledges and estates receivable	—	—	—	129,510	—	129,510	61,983
Other receivables, net	28,113	68,373	96,486	6,237	(60,078)	42,645	29,203
Inventories, at cost	23,568	520	24,088	—	—	24,088	22,789
Prepaid expenses	16,721	15,335	32,056	272	—	32,328	27,140
Total current assets	807,717	246,248	1,053,965	161,761	(60,078)	1,155,648	1,209,077
Noncurrent assets:							
Capital assets, net of accumulated depreciation	969,430	1,039,871	2,009,301	263	—	2,009,564	1,742,740
Funds held by trustee – less current portion	10,582	2,152	12,734	—	—	12,734	12,644
Surplus Note - Moda	—	33,500	33,500	—	—	33,500	33,500
Long-term investments:	—	—	—	—	—		—
Long-term investments, restricted	—	30,668	30,668	622,400	—	653,068	622,534
Long-term investments, unrestricted	532,167	155,124	687,291	432,522	—	1,119,813	950,890
Total long-term investments	532,167	185,792	717,959	1,054,922	—	1,772,881	3,362,308
Prepaid financing costs, net	1,585	578	2,163	—	—	2,163	2,615
Pledges and estates receivable – less current portion	—	—	—	390,704	—	390,704	510,511
Restricted post employment benefit asset		1,389	1,389	—	—	1,389	—
Other noncurrent assets	11,248	3,116	14,364	2,188	—	16,552	10,768
Interest in the Foundations	—	1,387,614	1,387,614	—	(1,387,614)	—	—
Total noncurrent assets	1,525,012	2,654,012	4,179,024	1,448,077	(1,387,614)	4,239,487	523,894
Total assets	$ 2,332,729	2,900,260	5,232,989	1,609,838	(1,447,692)	5,395,135	5,095,279
Deferred outflows							
Deferred amortization of derivative instruments	$ 4,760	3,769	8,529	—	—	8,529	9,730
Loss on refunding of debt	21,536	2,241	23,777	—	—	23,777	25,248
Pension obligation	—	149,247	149,247	—	—	149,247	264,399
Goodwill	639	—	639	—	—	639	—
Other Postemployment Benefits (OPEB) obligation	—	356	356	—	—	356	—
Total deferred outflows	$ 26,935	155,613	182,548	—	—	182,548	299,377
Total assets and deferred outflows	$ 2,359,664	3,055,873	5,415,537	1,609,838	(1,447,692)	5,577,683	5,394,656

Schedule 1

OREGON HEALTH & SCIENCE UNIVERSITY
Combining Schedules of Net Position
Year ended June 30, 2018 with comparative totals for June 30, 2017
(Dollars in thousands)

	Hospital	Other University	Total University	Foundations	Eliminations/ reclassifications	2018	2017
Liabilities							
Current liabilities:							
Current portion of long-term debt	$ 13,668	9,726	23,394	—	—	23,394	5,659
Current portion of long-term capital leases	803	63	866	—	—	866	845
Current portion of self-funded insurance programs liability	—	29,885	29,885	—	—	29,885	26,956
Accounts payable and accrued expenses	77,637	59,732	137,369	22,084	—	159,453	137,326
Accrued salaries, wages, and benefits	16,518	73,540	90,058	—	—	90,058	83,682
Compensated absences payable	36,015	49,096	85,111	—	—	85,111	80,582
Unearned revenue	1,885	55,543	57,428	—	—	57,428	173,344
Other current liabilities	84,010	6,070	90,080	60,242	(60,078)	90,244	9,289
Total current liabilities	230,536	283,655	514,191	82,326	(60,078)	536,439	517,683
Noncurrent liabilities:							
Long-term debt – less current portion	626,385	348,292	974,677	—	—	974,677	998,731
Long-term capital leases – less current portion	2,597	117	2,714	—	—	2,714	3,454
Liability for self-funded insurance programs – less current portion	—	38,060	38,060	—	—	38,060	35,458
Liability for life income agreements	—	—	—	23,975	—	23,975	23,933
Pension Liability	—	424,000	424,000			424,000	526,200
Other noncurrent liabilities	8,093	23,838	31,931	2,823	—	34,754	31,963
Total noncurrent liabilities	637,075	834,307	1,471,382	26,798	—	1,498,180	1,619,739
Total liabilities	$ 867,611	1,117,962	1,985,573	109,124	(60,078)	2,034,619	2,137,422
Deferred inflows							
Deferred amortization of derivative instruments	$ 3,935	3,116	7,051	—	—	7,051	3,848
Gain on refunding of debt	1,090	1,075	2,165	—	—	2,165	2,540
Life income agreements	—	—	—	31,919	—	31,919	29,120
Pending funds	—	—	—	81,181	—	81,181	74,053
Pension obligation	—	52,078	52,078	—	—	52,078	36,092
Other Postemployment Benefits (OPEB) obligation	—	1,379	1,379	—	—	1,379	—
Total deferred inflows	$ 5,025	57,648	62,673	113,100	—	175,773	145,653
Net position							
Net investment in capital assets	$ 382,152	778,251	1,160,403	—	—	1,160,403	997,731
Restricted, expendable	—	813,026	813,026	734,314	(734,314)	813,026	842,794
Restricted, nonexpendable	—	249,931	249,931	249,931	(249,931)	249,931	231,908
Unrestricted	1,104,876	39,055	1,143,931	403,369	(403,369)	1,143,931	1,039,148
Total net position	$ 1,487,028	1,880,263	3,367,291	1,387,614	(1,387,614)	3,367,291	3,111,581
Total liabilities, deferred inflows and net position	$ 2,359,664	3,055,873	5,415,537	1,609,838	(1,447,692)	5,577,683	5,394,656

Schedule 2

OREGON HEALTH & SCIENCE UNIVERSITY

Consolidating Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2018 and 2017

(Dollars in thousands)

	Hospital	Other University	Total University	Foundations	Eliminations/ reclassifications	2018	2017
Operating revenues:							
Patient service revenue, net of bad debt adjustments of $19,064 in 2018 and $18,056 in 2017	$ 1,749,524	461,129	2,210,653	—	—	2,210,653	2,097,255
Student tuition and fees, net	—	73,975	73,975	—	—	73,975	69,706
State appropriations	1,327	35,699	37,026	—	(37,026)	—	—
Gifts, grants, and contracts	671	662,084	662,755	63,835	(113,238)	613,352	554,829
Other revenue	99,224	52,498	151,722	3,490	(3,134)	152,078	126,984
Research & education support	(97,500)	97,500	—	—	—	—	—
Total operating revenues	1,753,246	1,382,885	3,136,131	67,325	(153,398)	3,050,058	2,848,774
Operating expenses:							
Salaries, wages, and benefits	787,186	932,958	1,720,144	12,771	—	1,732,915	1,623,266
Defined benefit pension	—	76,587	76,587	—	—	76,587	85,277
Services, supplies, and other	740,734	150,534	891,268	126,499	(116,524)	901,243	828,113
Provider tax	49,600	—	49,600	—	—	49,600	87,766
Depreciation and amortization	76,768	74,218	150,986	109	—	151,095	146,596
Interest	16,041	12,496	28,537	—	—	28,537	29,202
Total operating expenses	1,670,329	1,246,793	2,917,122	139,379	(116,524)	2,939,977	2,800,220
Operating income	82,917	136,092	219,009	(72,054)	(36,874)	110,081	48,554
Nonoperating revenues (expenses):							
Investment income and gain (loss) in fair value of investments	15,692	8,334	24,026	66,797	—	90,823	111,940
State appropriations	—	—	—	—	37,026	37,026	35,560
Other	67	(363)	(296)	2,016	—	1,720	257
Total nonoperating revenues (expenses), net	15,759	7,971	23,730	68,813	37,026	129,569	147,757
Net income (loss) before contributions for capital and other	98,676	144,063	242,739	(3,241)	152	239,650	196,311
Other changes in net position:							
Contributions for capital and other	4,517	(1,312)	3,205	—	(152)	3,053	9,586
Change in interest in the Foundations	—	13,740	13,740	—	(13,740)	—	—
Nonexpendable donations	—	—	—	16,981	—	16,981	15,145
Total other changes in net position	4,517	12,428	16,945	16,981	(13,892)	20,034	24,731
Total increase (decrease) in net position	103,193	156,491	259,684	13,740	(13,740)	259,684	221,042
Net position – beginning of year, as adjusted*	1,383,835	1,723,772	3,111,581	1,373,874	(1,373,874)	3,111,581	2,890,539
Restatement due to implementation of GASB Statement No. 75	—	—	(3,974)	—	—	(3,974)	—
Net position – end of year	$ 1,487,028	1,880,263	3,367,291	1,387,614	(1,387,614)	3,367,291	3,111,581

*FY17 Beginning net position has been reduced due to implementation of GASB 81, by $27,737. FY 17 total increase in net position has also been reduced by $1,383 from current year adjustments, for a total decrease in ending net position of $29,120.

See accompanying independent auditors’ report.

Schedule 3

OREGON HEALTH & SCIENCE UNIVERSITY

Hospital Statements of Revenues, Expenses, and Changes in Net Position

Years ended June 30, 2018 and 2017

(Dollars in thousands)

	2018	2017
Operating revenues:		
Patient service revenue, net of bad debt adjustments of $15,103 in 2018 and $14,230 in 2017	$ 1,749,524	1,668,731
State appropriations	1,327	1,274
Gifts, grants, and contracts	671	4,792
Other revenue	99,224	75,440
Research & education support	(97,500)	(102,762)
Total operating revenues	1,753,246	1,647,475
Operating expenses:		
Salaries, wages, and benefits	787,186	724,419
Services, supplies, and other	740,734	666,302
Provider tax	49,600	87,766
Depreciation and amortization	76,768	74,749
Interest	16,041	16,674
Total operating expenses	1,670,329	1,569,910
Operating income	82,917	77,565
Nonoperating revenues (expenses):		
Investment income and gain (loss) in fair value of investments	15,692	18,914
Other	67	(159)
Total nonoperating revenues (expenses), net	15,759	18,755
Net income (loss) before contributions for capital and other	98,676	96,320
Other changes in net position:		
Contributions for capital and other	4,517	(410)
Total other changes in net position	4,517	(410)
Total increase (decrease) in net position	103,193	95,910
Net position – beginning of year	1,383,835	1,287,925
Net position – end of year	$ 1,487,028	1,383,835

OHSU

FY18 and FY19 OHSU Performance Indicator Review

DATE: October, 2018 PRESENTED BY: Dan Forbes, Vice President – Human Resources

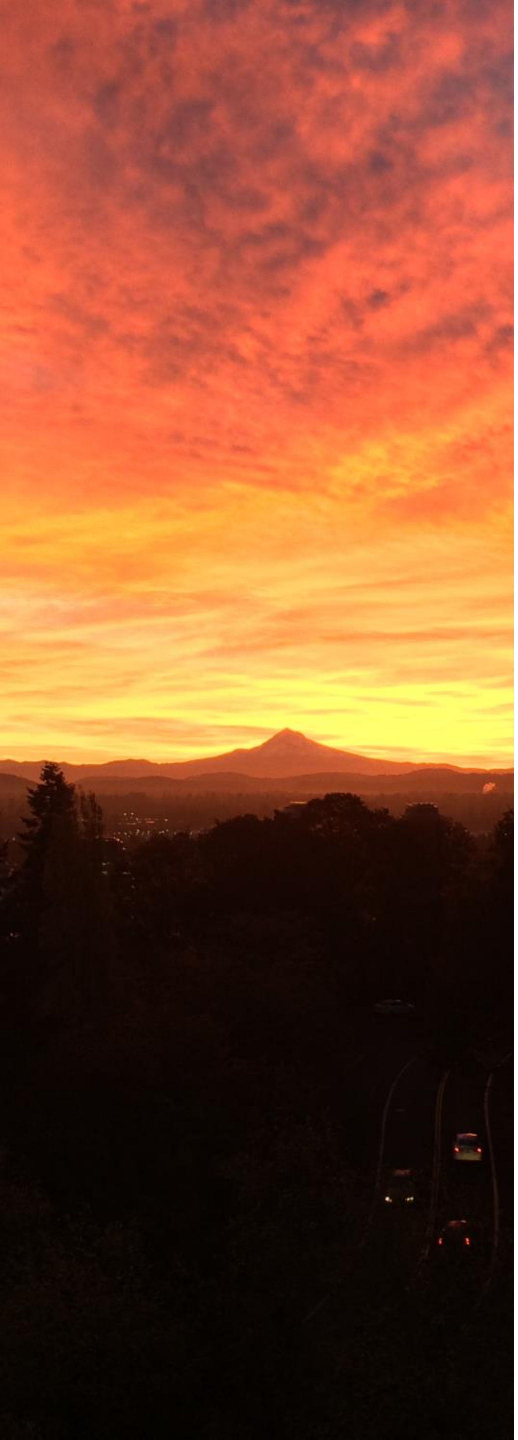
Performance Indicators

- FY18 Results
- FY19 Performance Indicators

FY18 Performance Indicator Summary Results

People	**Transportation**	**Engagement**	**Uncon Bias**	**Recruitments**		
	Fully completed & implemented	4.00	4277	87.60%		
Target	Plan completed	4.14	2600	85.00%		
Healthcare	**Access**	**Mortality**	**Adult Patient Sat**	**Peds Patient Sat**	**Overall Amb Sat**	**Transfers***
	18.75%	0.87	79.6	77.8	79.1	95.72%
Target	15% Increase	0.86	79.1	79.5	79.8	96.00%
Research	**Grants Submitted**	**Grant $**	**Publications**	**Turnaround Time**		
	1,654	$ 436,132,585	3,010	86		
Target	1,976	$ 420,000,000	2,874	90 days		
Education	**Student Recruitment**	**Applicants**	**First Time Pass**	**Decrease Debt**		
	339	9,885	Met or Exceeded	$505,452		
Target	296	9,759	Varies by Degree	$ 551,550		
Finance	**EBITDA**	**Patient Revenue Growth**	**Research & Education Revenue Growth**	**Daily of cash on hand**		
	10.65%	7.23%	3.40%	215		
Target	9.90%	5.00%	3.10%	200		

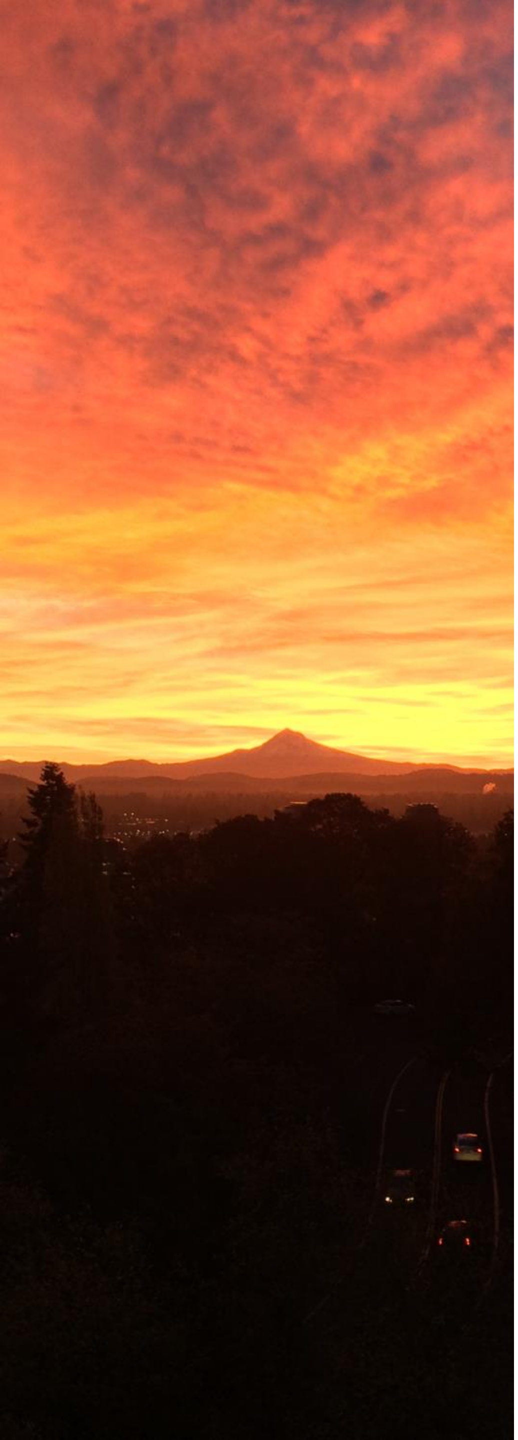
On or above target
Improved but not at target
Below target
Below FY17 and target



FY18 Performance Indicator Results - People

Goal 1 – Improve transportation access to OHSU

- **Launch Transportation Demand Management (TDM) Plan by 3/30/18**
  - TDM Plan was completed. It was enabled by the 5,500+ employees who shared their commute habits and preferences.
- **Launch peer to peer carpool program by 6/30/18**
  - MyCommute launched. MyCommute is an employee commute hub where people track their trips, earn rewards and incentives, request a *Guaranteed Ride Home*, track the shuttle, and stay up to date on commute information.
  - Scoop launched. Scoop provides a flexible peer-to-peer carpool matching service helping to connect OHSU employees. More than 12,000 carpool trips have been completed since mid April using Scoop.
  - Lyft Off launched. Lyft Off offers employees who commute at off-peak hours a subsidized Lyft ride. More than 4,000 rides have been given.



FY18 Performance Indicator Results - People

<u>Goal 2 – Improve employee engagement</u>

- **Raise our Press Ganey engagement score from 3.99 in FY17 to 4.14 in FY18**
  - Results for the non-faculty (faculty did not participate in the FY17 Press Ganey survey), were 4.00.
  - Although there was a very slight improvement in OHSU's non-faculty score, OHSU's percentile ranking declined.

<u>Goal 3 – Increase number of employees trained in unconscious bias</u>

- **Train 2,600 individuals**
  - More than 4,000 individuals were trained.

<u>Goal 4 – Increase actively managed recruitments</u>

- **85% of recruitments are actively managed**
  - 87.60% of recruitments were actively managed in FY18.

FY18 Performance Indicator Results - Healthcare

Goal 1 – Improve observed to expected mortality rate

- **Lower observed over expected mortality rate to .88 or below**
  - Mortality observed over expected results were .87.

Goal 2 – Improve patient access to OHSU clinics

- **Improve upon FY17 access for new patients by 15%**
  - Access improved by 18.75% for OHSU clinics.

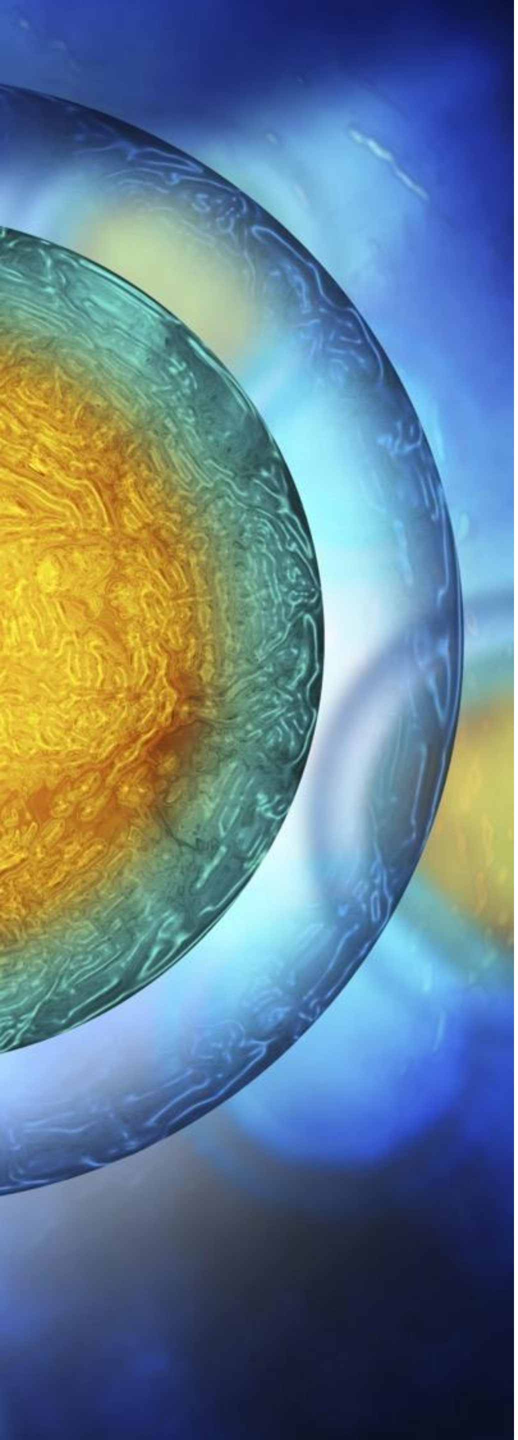
FY18 Performance Indicator Results - Healthcare

<u>Goal 3 – Improve patient satisfaction for OHSU hospital and clinics</u>

- **Patient satisfaction to be in the top quartile of the adult, pediatric, and ambulatory surveys**
  - Adult in-patient met this goal, while pediatric and ambulatory did not.

<u>Goal 4 – Improve the appropriate transfer acceptance rate</u>

- **Improve the from FY17 transfer rate of 90.9% to 96% in FY18**
  - OHSU and its partners accepted 95.72% of appropriate transfers.



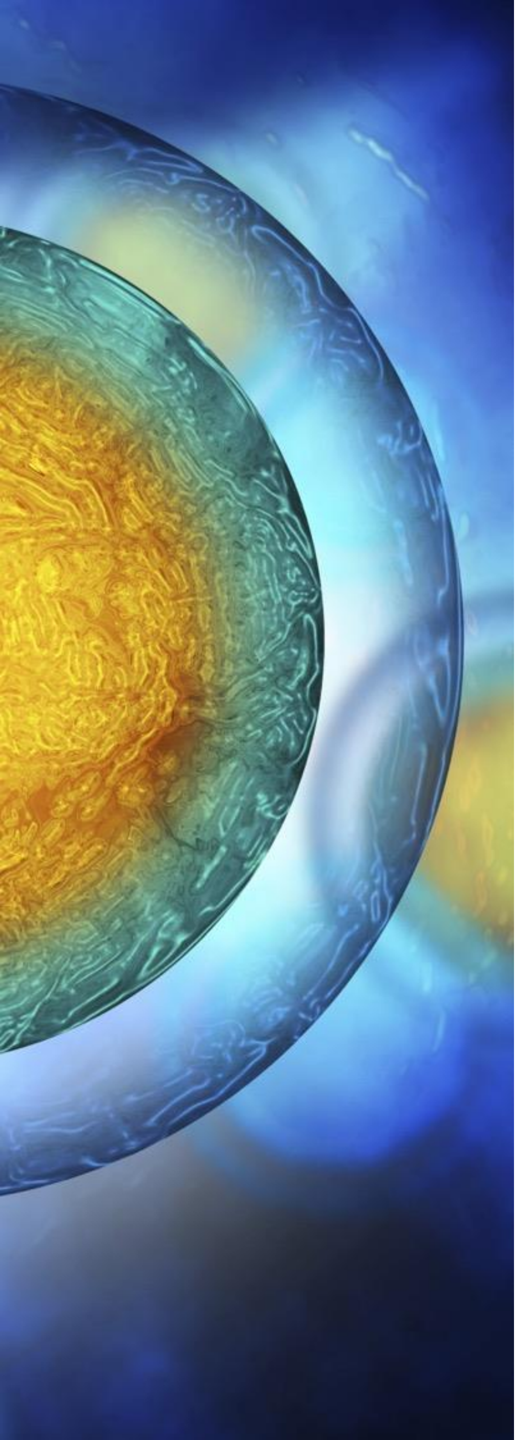
FY18 Performance Indicator Results - Research

<u>Goal 1 – Increase the number of grants submitted</u>

- **Increase grants submitted by 6% over FY17**
  - Grant submissions declined in FY18.

<u>Goal 2 – Increase grant award dollars</u>

- **Increase the grant awards by $10M in FY18**
  - Grant awards increased by $16M.



FY18 Performance Indicator Results - Research

<u>Goal 3 – Increase the number of publications</u>

- **Increase the number of publications by 3% over FY17**
  - Publications increased by more than 7% in FY18.

<u>Goal 4 – Improve the turnaround time for industry sponsored clinical trials</u>

- **Improve to 90 days or less**
  - Turnaround time was improved to 86 days.

FY18 Performance Indicator Results - Education

Goal 1 – Increase success of underrepresented student recruitment and retention in targeted publicly supported degree programs

- **Increase from 288 to 296**
  - The total number increased to 339.

Goal 2 – Increase number of applicants in targeted publicly supported degree programs

- **Increase total number of applications by 102**
  - The total number increased by 228.

FY18 Performance Indicator Results – Education

Goal 3 – Maintain or increase first time pass rates for credentialing exams in targeted publicly supported degree programs

- OHSU maintained or increased first time pass rates.

Goal 4 – Reduce overall indebtedness as measured by the combined average indebtedness in targeted publicly supported degree programs

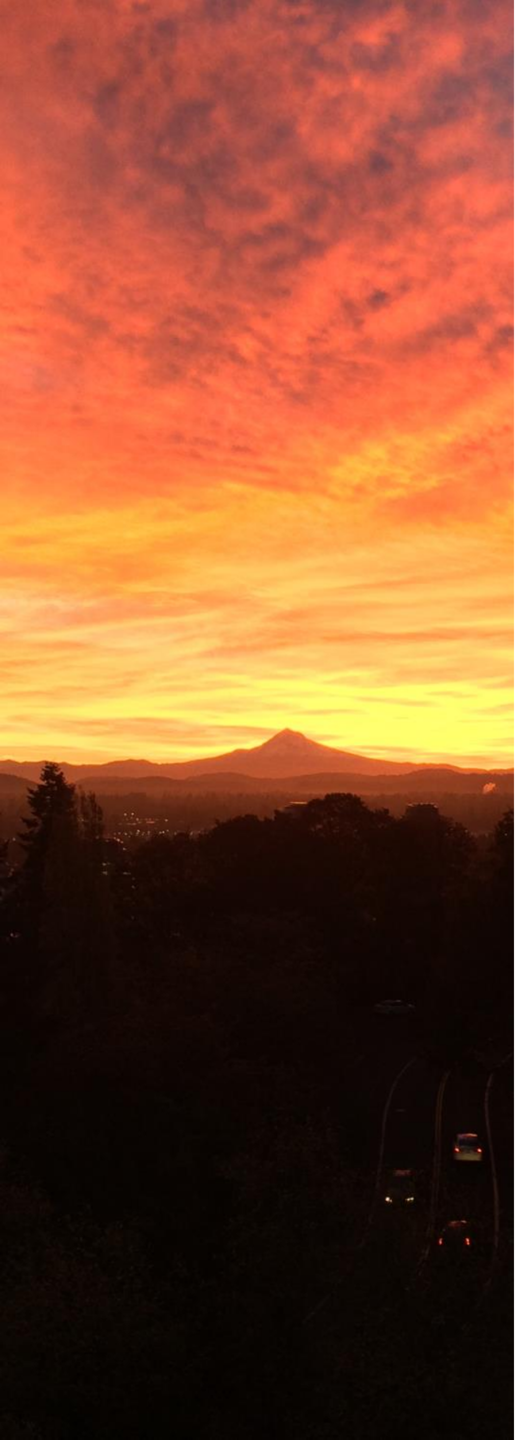
- **Decrease the combined average indebtedness at graduation**
  - OHSU reduced the combined averaged indebtedness by 8.4%.

FY 2019 OHSU Performance Indicators

These performance indicators reflect organization-wide priorities that leadership will focus on during the coming year. Progress will be reported quarterly. Incentive programs for executive management and senior leaders in central services and health care will be aligned directly to these indicators.

OHSU

PEOPLE	**Promote and improve the flexible work environment at OHSU.** Measure: Implement programs that will increase the number of days staff are not on site by 2,000 days in FY19.	**Improve employee engagement. Implement action plan(s).** Measure: 75% of managers included in survey will receive results and template to discuss with staff by October 1st.	**Increase number of employees trained in unconscious bias.** Measure: 4,600 individuals trained.	**Increase employees' understanding of respectful behavior in the workplace.** Measure: 13,000 employees will complete the Respect at the University training module by April 30, 2019.
HEALTH CARE	**Improve access to OHSU clinics.** Measure: Improve clinic access from FY18.	**Improve observed to expected mortality rate.** Measure: Observed to expected mortality rate at .808 or lower.	**Improve patient satisfaction experience.** Measure: Baseline NPS performance for the adult hospital, pediatric hospital, and ambulatory clinics will be collected during Q1 FY19.	**Improve appropriate transfer acceptance rate.** Measure: Increase the number and percentage of accepted transfers with ultimate target of 99.9 percent.
RESEARCH	**Increase the number of grants submitted.** Measure: Increase grants submitted from FY18.	**Increase in award dollars.** Measure: Increase total award dollars.	**Increase in number of publications.** Measure: Increase the number of publications.	**Improve turnaround time for industry-sponsored clinical trials.** Measure: Reduce turnaround time.
EDUCATION	**Increase success of underrepresented minority (URM) student recruitment and retention.** Measure: Increase the number of underrepresented students enrolled.	**Maintain or increase the number of degrees and certificates awarded.** Measure: Increase total number of degrees and certificates awarded.	**Maintain or increase first time pass rates for credentialing exams in targeted publicly supported degree programs.** Measure: Maintain or improve rates.	**Reduce overall indebtedness as measured by the combined average indebtedness at graduation for targeted publicly supported degree programs.** Measure: The combined average indebtedness at graduation for the DMD, MD and the Undergraduate Nursing OCNE.
FINANCES	**Sustain EBITDA margin.** Measure: 10.0 percent margin at budget close.	**Increase patient care revenue.** Measure: Increase revenue by 5.0 percent over FY18.	**Increase revenue for research and education.** Measure: Increase revenue by 3.5 percent over FY18.	**Maintain or grow cash on hand.** Measure: Maintain 200 days of cash on hand in FY19.



FY19 Performance Indicators - People

Goal 1 – Promote and improve flexible work environments

- FY18 goal was to make it easier to get to OHSU. FY19 will focus on flexible schedules and increasing remote work opportunities.

Goal 2 – Improve employee engagement: Implement action plans

- FY18 goal was based on improving engagement score. FY19 will focus on implementing changes and programs which we believe will lead to improved engagement and are responsive to feedback provided in the survey.

Goal 3 – Increase number of individuals trained in unconscious bias

- FY18 goal was 2,600 individuals. FY19 increases the number to 4,600, with an emphasis placed on faculty. We will add students in a pilot program at their request.

Goal 4 – Increase understanding of respectful behavior in the workplace

- FY18 goal was based on ensuring the recruitment processes were followed. FY19 goal will be focused on increasing and ensuring respectful behavior at OHSU.

OHSU

FY19 Performance Indicators - Healthcare

Goal 1 – Improve observed to expected mortality rate

- No changes, updated rates based upon benchmarks.

Goal 2 – Improve patient access to OHSU clinics

- Move to measure based upon % of clinics improving vs. overall improvement.

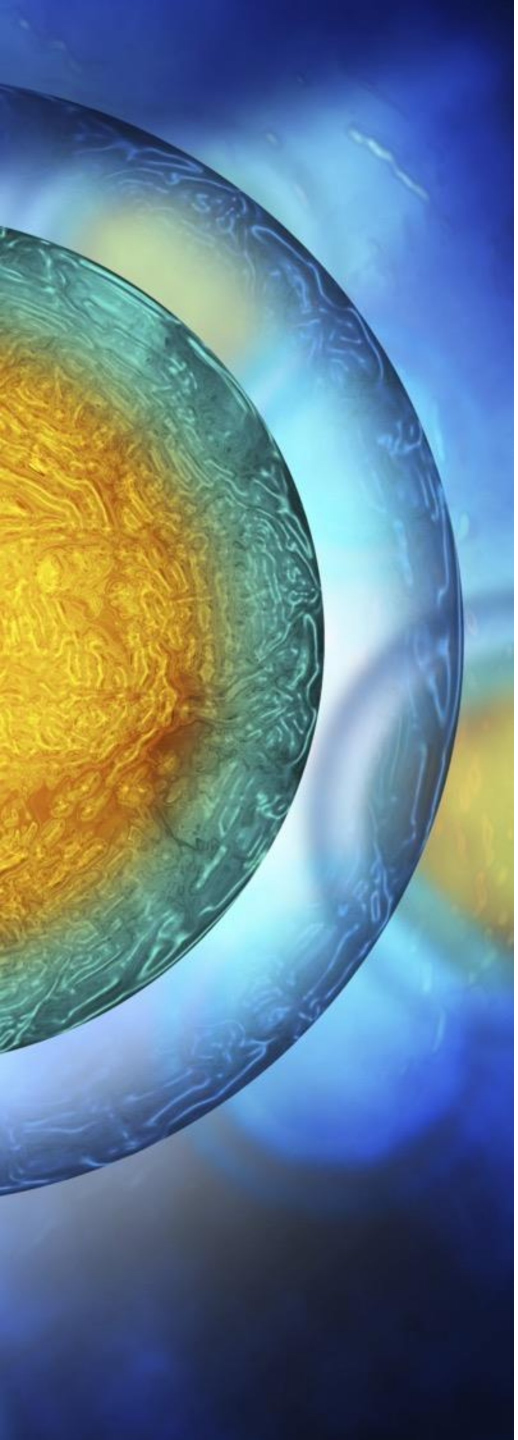
Goal 3 – Improve patient experience

- Moved to new vendor and will be based upon net promotor score (likelihood to recommend).

Goal 4 – Improve appropriate transfer acceptance rate

- No changes; updated based upon FY18 data.

OHSU



FY19 Performance Indicators - Research

<u>Goals 1-4</u> – No changes, updated to reflect improvements from FY18.

OHSU

FY19 Performance Indicators - Education

Goal 1 – Increase success of underrepresented minority student recruitment and retention

- FY18 goal targeted publicly supported degree programs. FY19 goal will focus on underrepresented minority student enrollment in all OHSU academic programs.

Goal 2 – Maintain or increase the number of degrees and certificates awarded

- Replaced FY18 performance indicator on the number of applicants in targeted publicly supported degrees programs.

Goal 3 – Maintain or increase first time pass rates for credentialing exams in targeted publicly supported degree programs

- No change to the indicator, updated benchmarks for FY19.

Goal 4 – Reduce overall indebtedness as measured by the combined average indebtedness of all graduates in targeted publicly supported degree programs

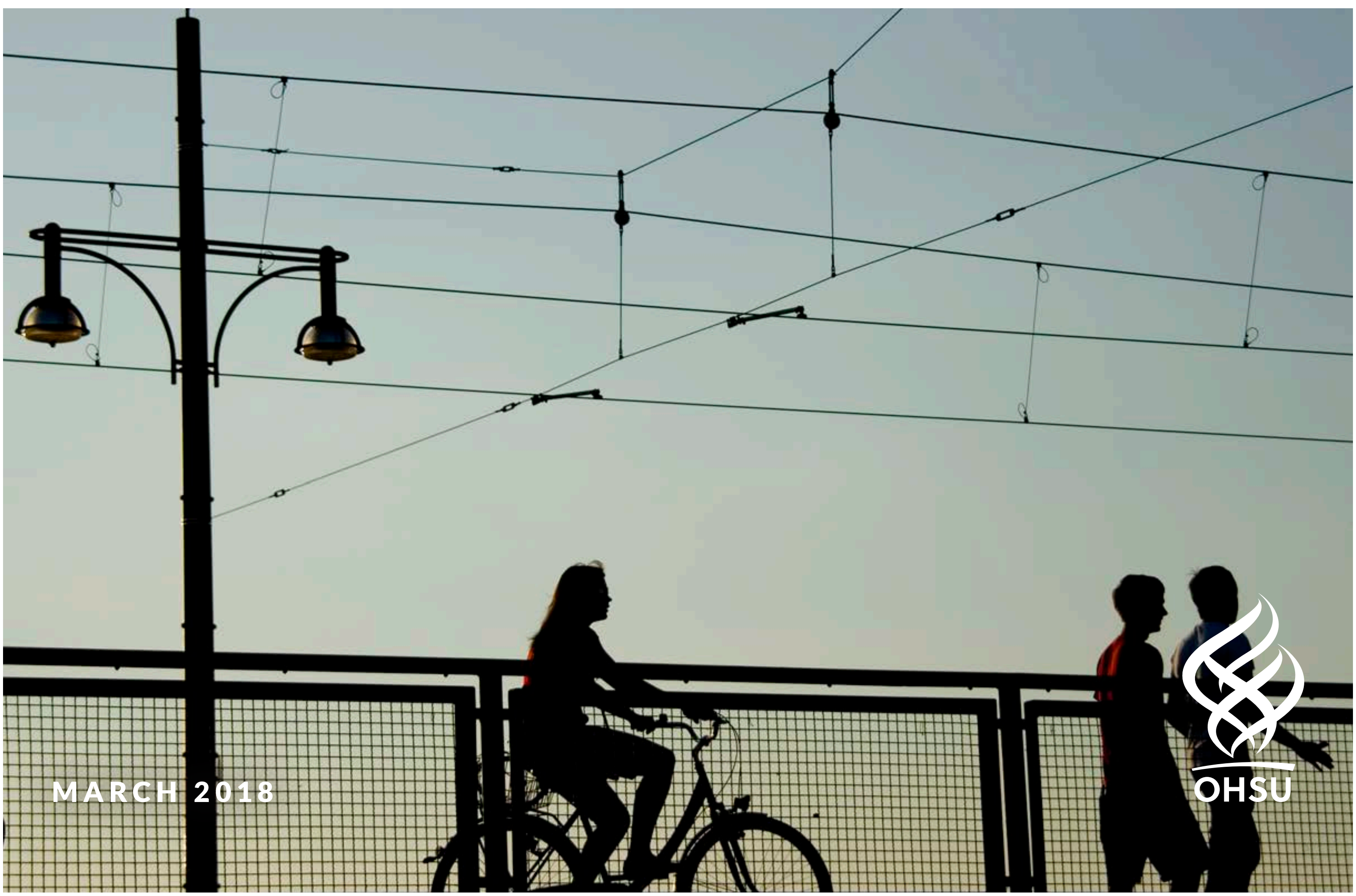
- FY18 goal did not reflect the increasing number of students graduating with no debt. FY19 goal will include these graduates in determining the combined average indebtedness.

OHSU

Questions?

TRANSPORTATION AND PARKING

Transportation Demand Management Plan



Acknowledgments

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TRANSPORTATION AND PARKING

Transportation Demand Management Plan (TDM)

MARCH 2018

CONTENTS

Since 1995 OHSU has experienced 150% growth in both employees and patients.

1.

What is the TDM Plan?

OHSU prides itself as a national leader in health and science innovation.

OHSU's current work and long-term vision prioritizes further innovation and transformation of not only the health care sector, but for also the Portland community in which it resides. In addition to providing industry-leading health care services, OHSU is one of the region's biggest employers with roughly 16,000 employees and 2,900 students.

Since 1995, OHSU has experienced 150% growth in both employees and patients, as well as construction of a new campus on the South Waterfront and new development on Marquam Hill. OHSU will continue to grow and evolve in the next ten years. New and planned development on the South Waterfront and ongoing improvements at Marquam Hill will result in substantial expansion of OHSU's physical footprint, population size, and patient services.

Anyone who travels to OHSU experiences its unique transportation issues. Steep terrain, constrained roadways, and major barriers like the Willamette River and I-5 present significant mobility challenges for patients and employees. Furthermore, OHSU must operate within a regulatory environment that restricts how much it grows, where it can grow, and to what degree it can build additional parking.

Confronted with these challenges, OHSU has built a renowned transportation program. As of 2017, only 38% of employees drive alone to the Marquam Hill and South Waterfront campuses, a remarkable achievement. Still, as OHSU's growth continues, it is simply not enough. OHSU's ability to achieve its vision will be determined by many factors, but the degree to which it can provide accessible, convenient, and affordable travel options will be central to its success.

What is Transportation Demand Management?

Transportation demand management refers to policies, programs, or projects that incentivize changes in travel behavior.

The goal of TDM is to reduce single-occupancy vehicle (SOV) trips and make it easier to walk, bike, share rides, use transit, or telecommute.

TDM may also include efforts to shift trips to off-peak periods or eliminate some trips altogether.

A Mobility Roadmap

The Transportation Demand Management (TDM) Plan is OHSU's mobility roadmap for the next decade. It comes at a pivotal moment for OHSU. OHSU initiated this comprehensive study to address its current and future transportation and parking challenges head-on, knowing that it must innovate if it wants to continue to grow, provide high-quality medical care, attract and retain the best talent, and ensure a positive and rewarding work environment for its valued employees.

Using a data-driven approach, informed by input from a diverse group of OHSU leaders, employees, and stakeholders, this Plan provides a strategic, flexible, and actionable framework that will help OHSU:

- Support campus development and allow OHSU to meet the growing demands.
- Manage a complex transportation system with tools that are dynamic, user-friendly, and cost-effective.
- Satisfy the unique needs of employees, students, patients, visitors, and nearby neighborhoods.
- Exceed mobility expectations of employees, students, patients, and visitors.
- Offer a convenient suite of travel options for employees throughout the region.
- Support the organization's values — transparency, diversity, quality, and service excellence — and bottom line.

This Plan also recognizes that the time for action is now. The Plan provides recommended strategies and includes actionable next steps that sets OHSU up for immediate progress and long-term success.

Overview of the Plan

Chapter 2 summarizes the **project approach**, including an overview of the project process and timeline, project advisory committee, and stakeholder outreach program.

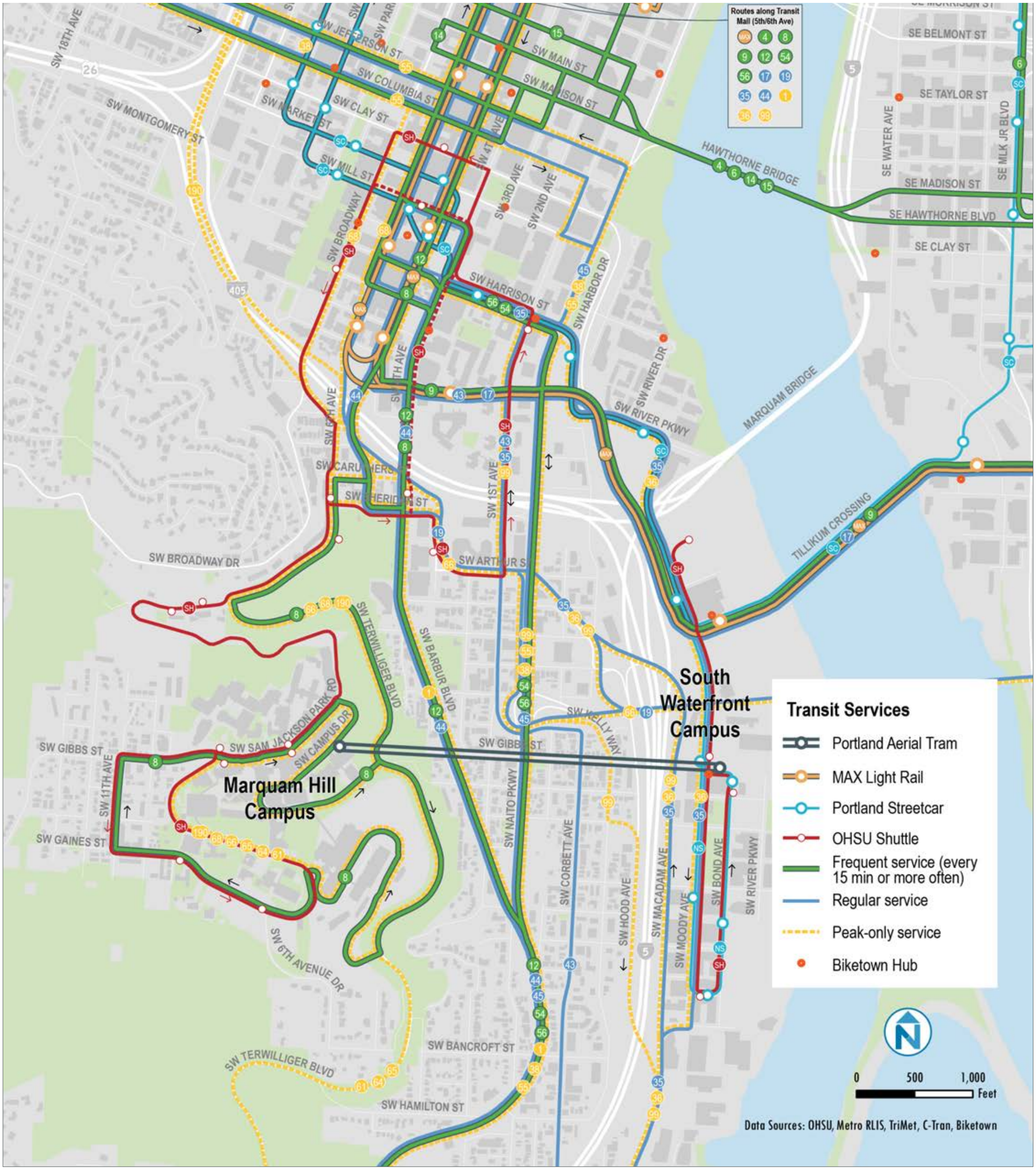
Chapter 3 summarizes the **problem statement** and key findings from the existing conditions analysis. It also documents a timeline of key events that have driven development of this Plan and its proposed implementation.

Chapter 4 describes the OHSU **vision for mobility** and summarizes the goals, objectives, and performance metrics that will guide its implementation.

Chapter 5 summarizes the five key initiatives, or "Playbook," and the **34 specific strategies** which will allow OHSU to achieve its mobility vision and goals. The strategies are organized into seven categories, or "Plays."

Chapter 6 documents the **implementation program**, including a summary of the TDM scenarios, trip impact assessment, and financial analysis.

The complementary **Strategy Dashboard** provides documentation for each strategy, including a description and summary of evaluation and costing.



What was the study area for this Plan?
The study area for this Plan primarily focuses on employee commutes at the Marquam Hill and South Waterfront campuses. However, the analysis and strategy development carefully considered all OHSU facilities and users. Its implementation will offer benefits to all employees, students, patients, and visitors.

The Bigger Picture

The OHSU TDM plan builds on the 2018–2020 OHSU Strategic Plan to reinforce and enhance the vision, values, and culture of the institution. Recommendations in the TDM Plan align with the overall OHSU vision statement:

> *National leadership in health and science innovation for the purpose of improving the health and well-being of Oregonians and beyond.*

To support this vision, the TDM Plan will improve access for employees, students, patients, and visitors. The TDM Plan also reflects and upholds the institution's core values.

Transparency: The TDM Plan encourages accountability and builds credibility with a commitment to reducing the employee drive-alone rate to 30% by the end of 2027.

Diversity: Recommendations of the TDM Plan address the transportation needs of a diverse range of users.

Quality: The TDM Plan establishes a set of mobility goals, objectives, and performance measures that will hold OHSU to high standard.

Service Excellence: The implementation of the TDM Plan will improve patient access to OHSU, enhance the patient experience, and support OHSU's commitment to service excellence.

The TDM Plan itself sets ambitious, yet realistic mode split targets that will require all OHSU affiliates to work together. Leveraging the OHSU culture—the power of one—will allow the institution to have a long-standing positive impact on local and regional mobility.

What is the TDM plan?

The Transportation Demand Management (TDM) Plan is OHSU's mobility roadmap for the next decade. It comes at a pivotal moment for OHSU. OHSU simply cannot grow as planned with a parking-only approach.

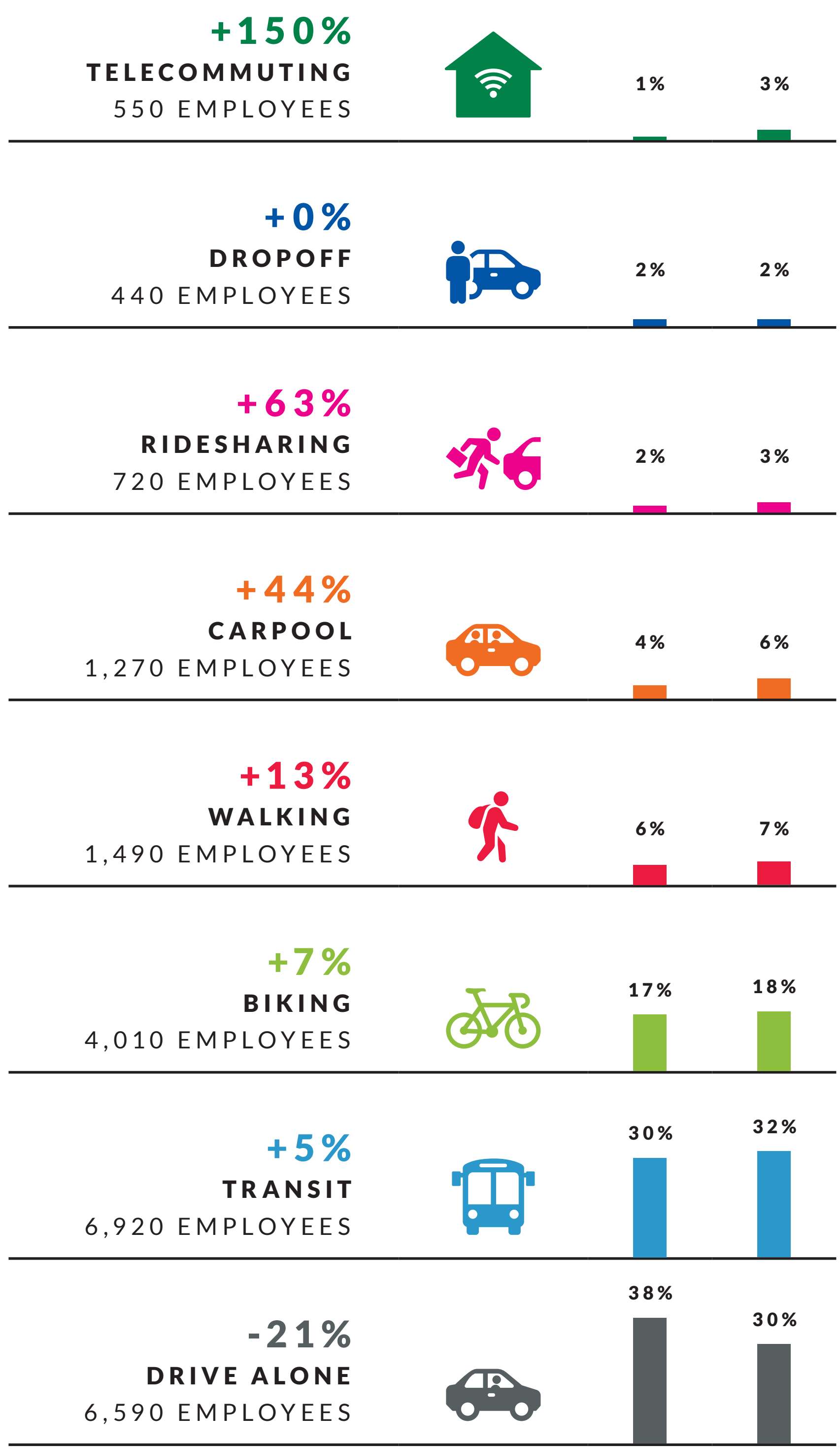
OHSU must continue to innovate with a comprehensive package of transportation solutions for employees, students, patients, and visitors. This Plan provides a strategic, flexible, and actionable framework that will support the organization's values and bottom line.

What will it do?

As of 2017, 38% of OHSU employees at Marquam Hill and South Waterfront are single-occupancy vehicle (SOV) commuters. The Plan establishes an ambitious, yet realistic 30% employee SOV target by 2028.

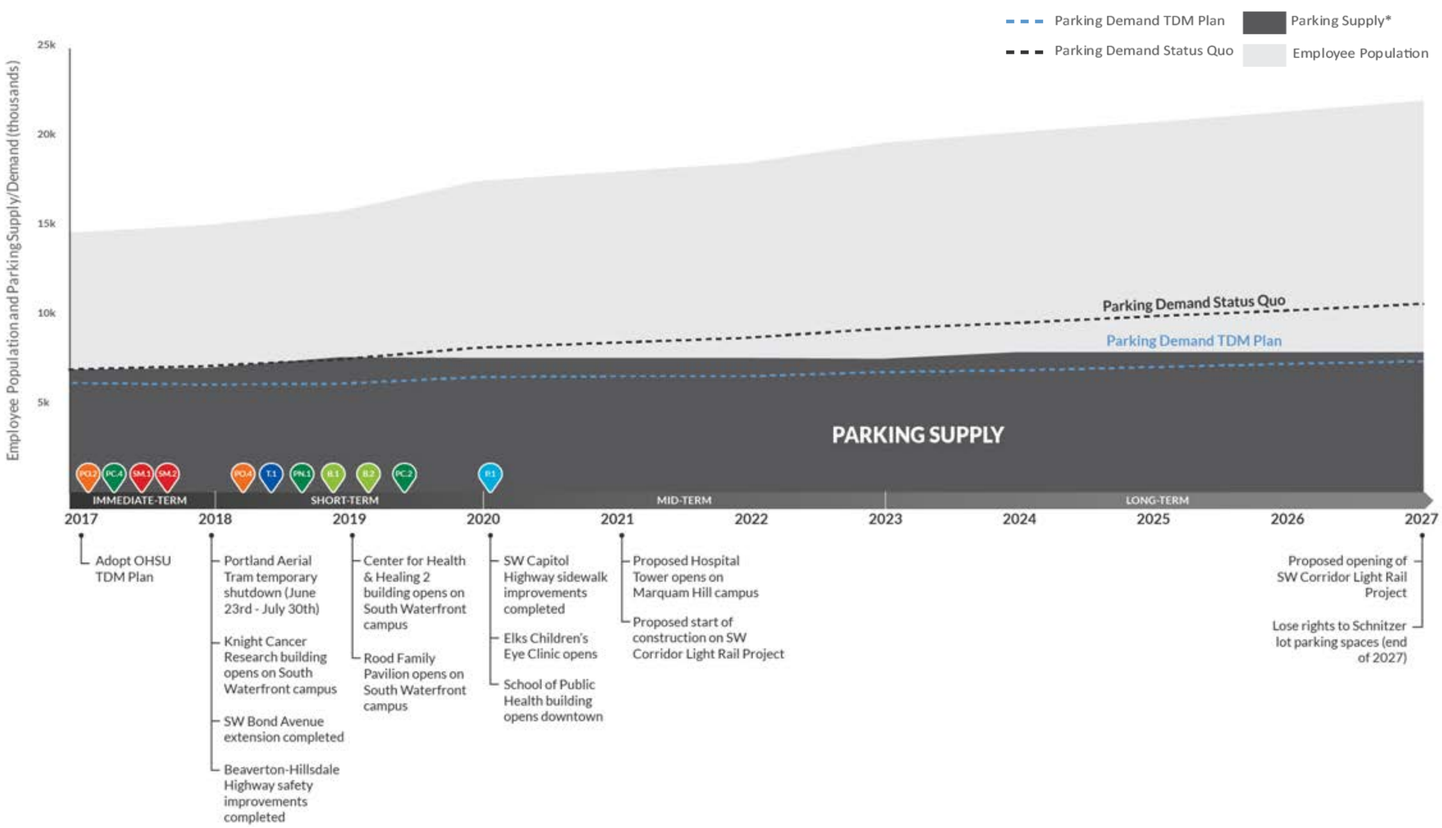
By 2028, more than 13,800 employees would be walking, biking, taking transit, sharing rides, or telecommuting; a 62% increase from 2017.

Between 2017 and 2027 mode share will change



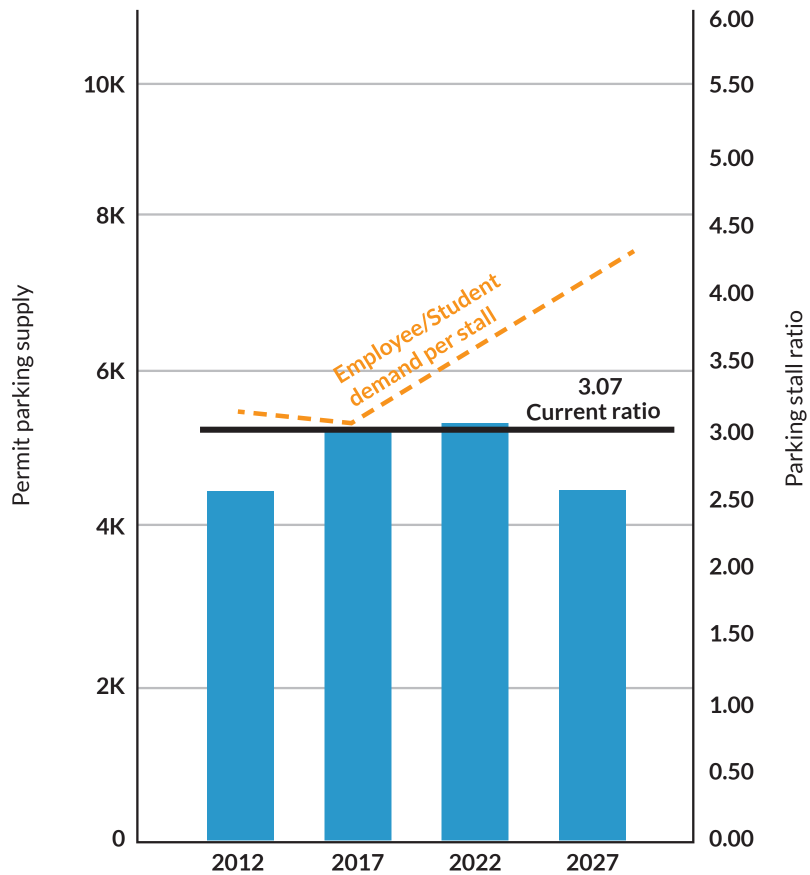
Employee population and parking supply/demand (thousands)

The Plan implements a suite of recommendations that also allow OHSU to manage its parking cost-effectively. Targeted investment in new parking supply, coupled with forward-thinking management practices and TDM programs, will ensure parking is consistently available for those that need it.



Employee/Student Permit Parking Ratio

Approximately 5,200 permitted parking spaces are available to employees and students—a ratio of one space for every 3 employees/ students. The demand per stall is expected to continue to greatly exceed supply, indicating a need for parking management and TDM programs.



PO.2
ACTIVE WORKPLACE CULTURE AND TRAINING

PO.4
TELECOMMUTING

T.1
TRANSIT SERVICE IMPROVEMENTS

PN.1
PEDESTRIAN ACCESS IMPROVEMENTS

B.1
BIKE ACCESS IMPROVEMENTS

B.2
BIKE PARKING IMPROVEMENTS

SM.1
EMPLOYEE AND PATIENT LYFT PROGRAM

SM.2
INTERNAL AND DYNAMIC CARPOOLING PROGRAM

P.1
PERMITS AND DAILY PRICING

PC.2
MOBILITY COMMUNICATIONS

PC.4
EMPLOYEE COMMUTE PLATFORM

High Impact + High Priority Strategies

The TDM Plan includes 34 strategies within seven categories – Policy (P), Transit (T), Pedestrian (PN), Bike (B), Shared Mobility (SM), Parking (P), and Programs + Communications (PC). Eleven of these strategies have been identified for priority implementation as they can quickly reduce parking demand and improve the commute experience.

The Strategy Dashboard document summarizes all of the strategies. These include:

- 11 High-Impact + High-Priority
- 19 Support
- 4 Long-term + Regional

Stakeholder feedback was essential for the project team to understand the major issues.

2.

How was the Plan Developed?

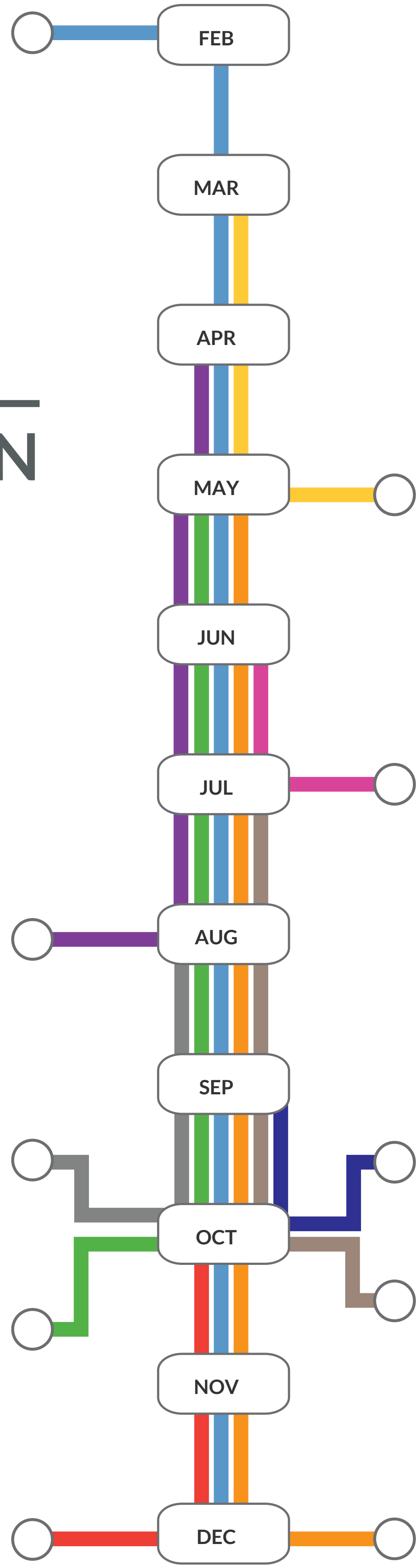
The OHSU TDM Plan was informed by a robust and inclusive outreach program.

Stakeholder feedback was essential for the project team to understand the major issues and challenges from a variety of user groups. In addition, the outreach efforts allowed the project team to test and shape the potential strategies and recommendations.

Input from employees, students, patients and visitors, neighborhood associations, transportation and parking staff, and staff from other OHSU departments was included in the Plan. The major components of the outreach plan included:

Stakeholder Advisory Committee
Goal setting workshop
Employee focus groups
Neighborhood focus groups
Employee travel survey
Patient/visitor travel survey
TDM Roadshow: Presentations to OHSU groups, committees, and executive leadership
2017 OHSU Census Survey (ECO survey) as well as previous years dating back to 2007

TDM PLAN PROCESS



Project Management and Meetings

Project kick-off and project management meetings

Feb – Dec 2017

Goal Setting

Project vision and goals established with OHSU leadership and project team

Mar – May 2017

Issues and Opportunities

Issues and opportunities related to employee communications and outreach, programs, mobility platforms, and parking management

Jun – Jul 2017

Existing Conditions

Analysis and documentation of existing programs, services, and infrastructure

Apr – Aug 2017

Surveys

Employee and patient surveys to gather feedback about initial strategies

Jul – Oct 2017

Best Practices

Employee and neighborhood focus groups

May – Oct 2017

Strategy Development and Evaluation

Evaluation of tradeoffs and impacts of programmatic and policy strategies

Jul – Oct 2017

Outreach

Best practice research to help inform strategies

Aug – Oct 2017

Recommended 10-Year Plan

Draft and Final 10-Year TDM Plan

Oct – Dec 2017

Stakeholder Advisory Committee

May – Dec 2017

Stakeholder Advisory Committee

The Stakeholder Advisory Committee (SAC) provided input and guidance throughout the development of the OHSU TDM Plan. The SAC was comprised of a diverse group of campus affiliates across multiple OHSU departments. Members included:

Josh Anderson
CENTRAL FINANCIAL SERVICES

Emily Boring
LOGISTICS MANAGEMENT

Skai Dancey
FACILITIES

Rachael Dresbeck
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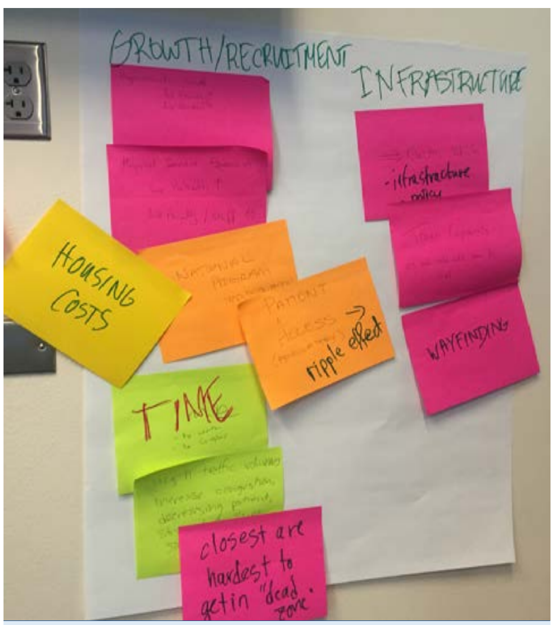
PATIENT ADVOCACY



At the Goal Setting Workshop, OHSU staff brainstormed key issues and opportunities. A core set of values was also identified by the group.

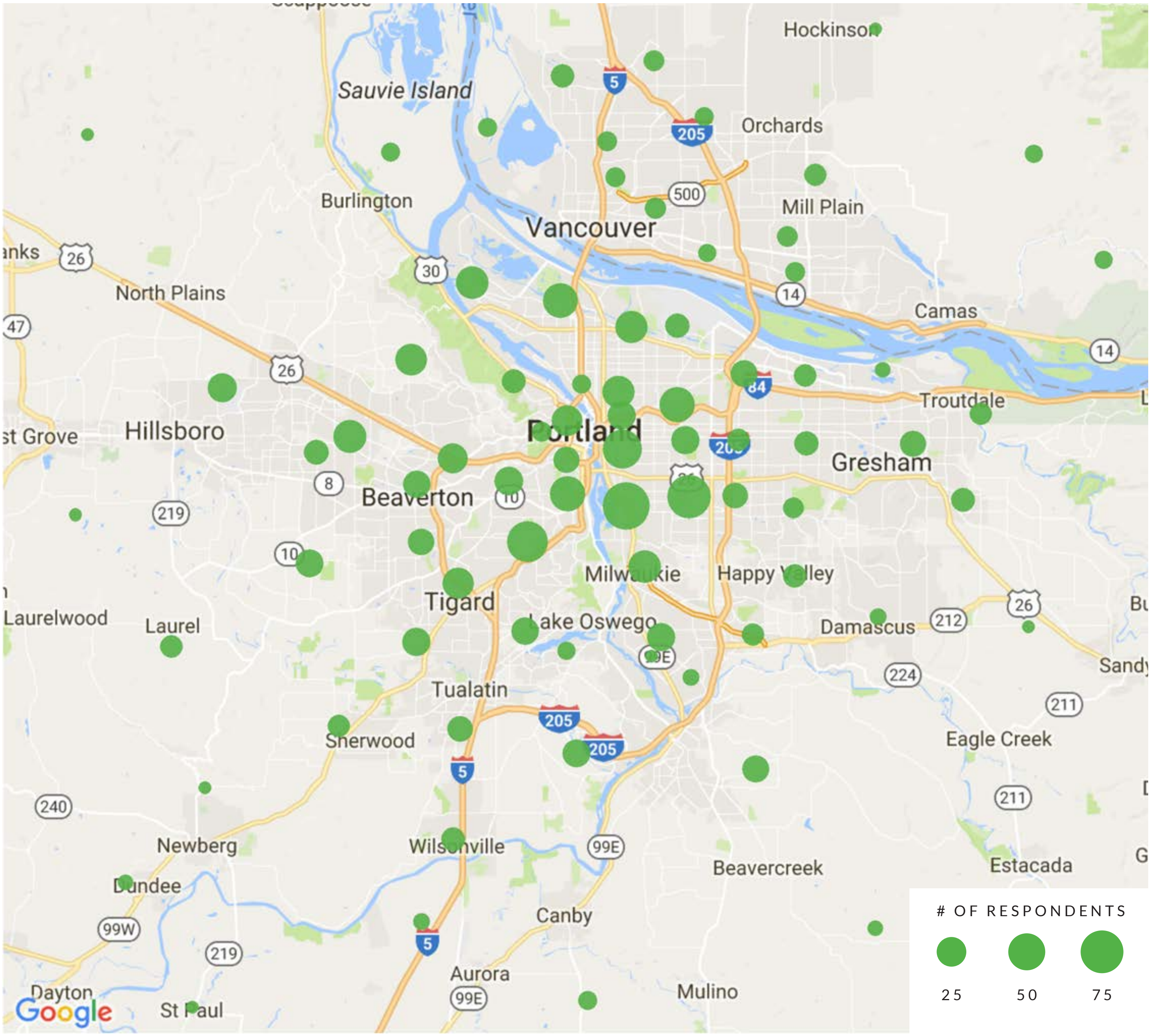
Outreach Highlights

Outreach from community and campus stakeholders played a vital role throughout the planning process. In April, the project team held a **Goal Setting Workshop** to identify guiding values, priorities, and outcomes for the project and OHSU's overall approach to transportation and mobility. Fourteen OHSU stakeholders from a wide range of departments participated in the workshop.

A series of three **Employee Focus Groups** were held in May. The groups were organized by commute mode – transit riders, bicyclists and pedestrians, and drivers/passengers (drive-alone, drop-offs, or carpools). To achieve a cross-section of feedback, each focus group had a mix of employees based on their primary work location, job classification, work shift, tenure, gender, and age.

A total of 31 employees participated in the focus groups. These focus groups helped provide the project team with a more nuanced understanding of perceptions of the existing commute program, parking issues, and programs that could help employees change their travel behavior.

Two **Neighborhood Focus Groups** took place in August and September: one with the South Portland Neighborhood Association and another with the Homestead Neighborhood Association. The focus groups provided a forum for nearby Portland residents to identify transportation related issues and opportunities for the OHSU campus, as well as in their neighborhood.



Employee survey respondents live throughout the region.

"Probably my number one desire would be the option to only pay for parking on days I use it."

An **Employee Travel Survey** in mid-September solicited further information on employee commuting patterns and preferences for commuter transportation programs at OHSU. A total of 1,405 employees responded to the survey. The survey focused on a series of strategy categories including parking, transit, bicycling, walking, ridesharing/carpooling, telecommuting, and policies and programs. Detailed employee survey findings are available in Appendix.

A **Patient/Visitor Travel Survey** was also made available in September in parking facilities on campus. A total of 725 survey responses were collected. The survey asked patients and visitors about their priorities for improving the OHSU parking system, and potential strategies that would be of interest as an alternative to driving. Detailed patient/visitor survey findings are available in Appendix.

With a low drive-alone rate, OHSU is the envy of many of its national peers.

3.

What are the Issues and Opportunities?

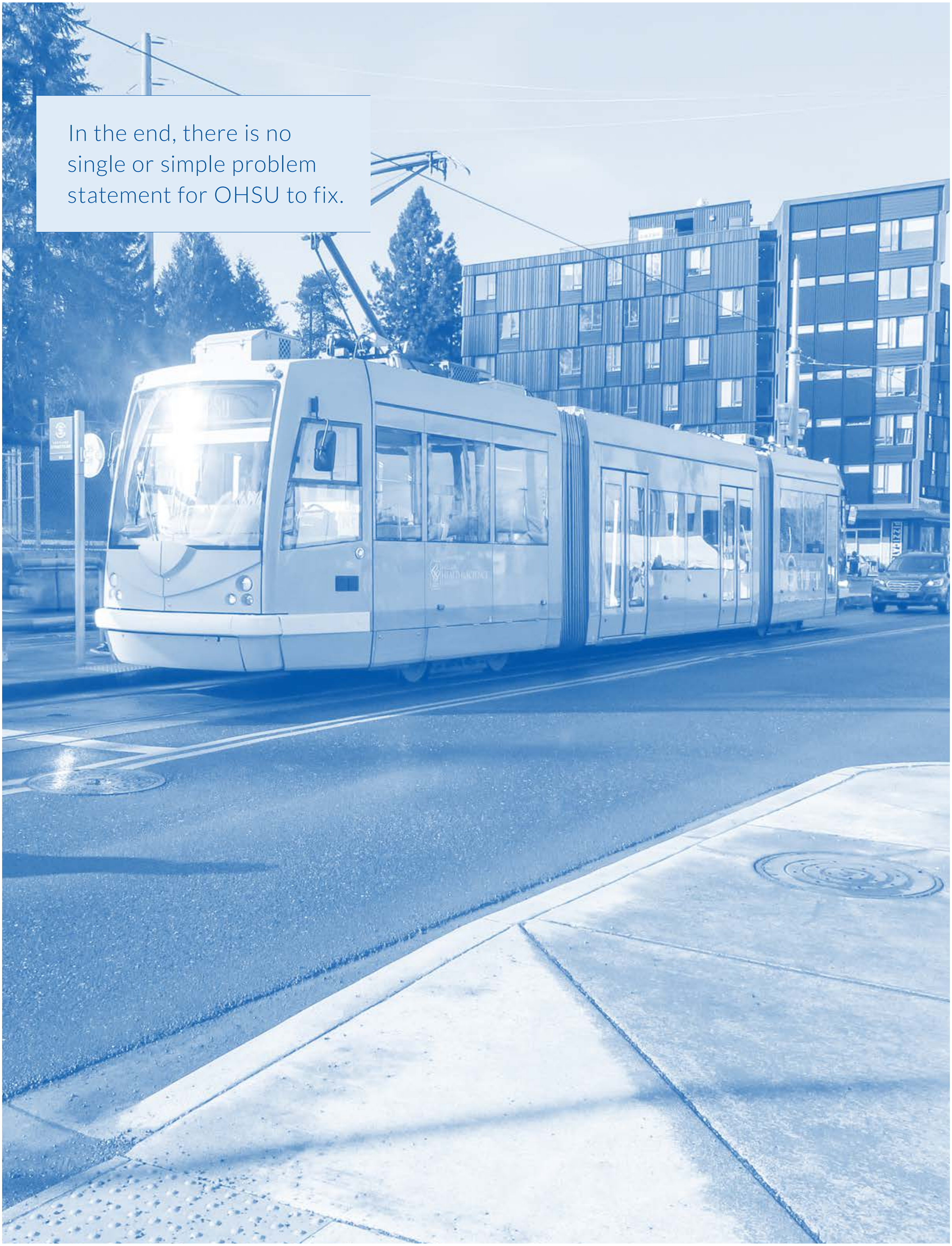
OHSU's past and ongoing investments in transit, biking, walking, and major infrastructure improvements have been vital in allowing OHSU to grow and thrive to this point.

With a low drive-alone rate, OHSU is the envy of many of its national peers. However, OHSU must continue to innovate and push the status quo if it is to grow, diversify, and provide high-quality health care services and employment opportunities.

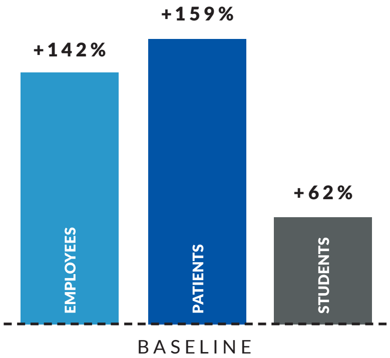
A detailed existing conditions analysis informed the development of the TDM Plan, including a review of OHSU planning documents and local and regional policies and plans. Parking data and multimodal programs were also analyzed to identify key trends and opportunities for improvement. Stakeholder workshops and employee surveys provided another layer of input, allowing the team to go beyond the data and fully understand the employee and patient experience.

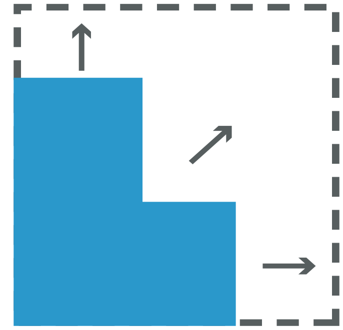
This chapter summarizes the key findings, primary issues, and opportunities for improvement that ultimately shaped the development of the TDM Plan and its recommendations. In the end, there is no single or simple problem statement for OHSU to fix. OHSU's transportation and mobility challenges are multifaceted, nuanced, and driven by not just OHSU itself, but also regional and societal trends. Nevertheless, there are many areas where OHSU can improve, while leveraging its ability to innovate in response to seemingly intractable challenges.

In the end, there is no single or simple problem statement for OHSU to fix.



OHSU has experienced significant growth since 1995. The campus is expected to continue to grow with more employees, students, patients, and visitors.



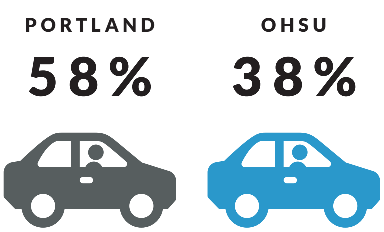


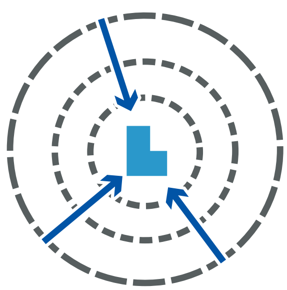
Between 1995 and 2016, the overall OHSU employee population increased by 142%, the patient population increased by 159%, and the student population grew by 62%.

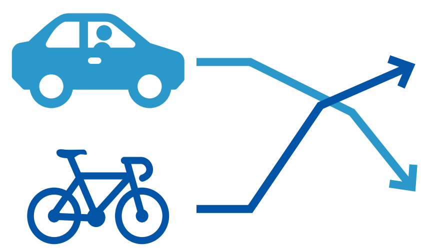
By 2027, more than 19,100 employees and almost 450,000 patients annually are projected at Marquam Hill and South Waterfront. In addition, 2,400 students and several thousand contractors and volunteers are also expected on an annual basis.

Physical expansion of the campus will continue, especially on the South Waterfront. Approximately 1 million square feet of new facilities will be built on the South Waterfront by 2019. Ongoing facility expansions and improvements are also planned for Marquam Hill.

The rate of employees driving alone to campus is trending down. Walking and biking mode shares have grown substantially.







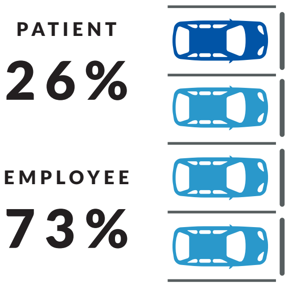
Driving alone is the primary commute mode — 38% for Marquam Hill and South Waterfront employees.

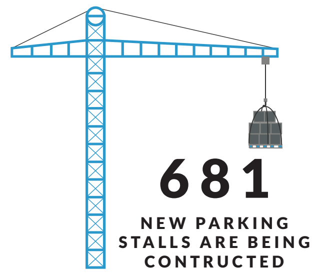
OHSU outperforms the City of Portland as a whole, which has a 58% SOV rate.

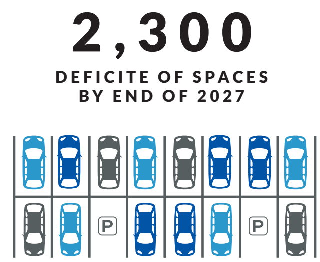
Drive alone rates are higher for those that live farther from campus and to the east and west of Portland. The Portland Transportation System Plan calls for 70% of commuters to walk, bike, take transit, carpool, or telecommute by the year 2035.

Between 2007 and 2017, the SOV rate at the Marquam Hill campus has decreased, while walk and bike share have gone up. Bike mode share has almost tripled in the last decade. By contrast, the carpool and transit mode shares have decreased.

Many parking facilities at OHSU are often at or near capacity today. New parking is planned, but estimated growth will outpace new supply with "status quo" driving rates.







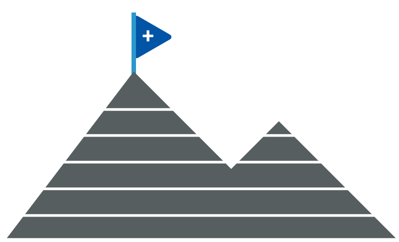
OHSU currently has 6,914 parking spaces — 4,314 at Marquam Hill, 1,908 at South Waterfront, and 692 at satellite parking lots. Approximately 73% of spaces are for employees and about 26% of spaces are for patients/visitors.

Many facilities, especially on Marquam Hill, often reach 100% occupancy. Parking demand across campus is trending up.

With the construction of the Knight Cancer Research Building and the Rood Family Pavilion, 681 new parking stalls at the South Waterfront will be available by 2019.

Based on assumed growth rates, a "status quo" 38% employee SOV rate could result in an estimated deficit of 2,300 spaces by the end of 2027.

OHSU cannot simply build its way out of its parking problem.



City regulations and area plans restrict the amount of parking that OHSU is allowed to build on both the Marquam Hill and South Waterfront campuses.

Land and topography constraints, especially on Marquam Hill, also reduce the feasibility of new parking construction.

Parking is very expensive to build and maintain. The current construction cost per space at OHSU is approximately $70,000, resulting in annual costs per space of about $5,900. Average annual revenue per space is roughly $1,900.

What We Heard

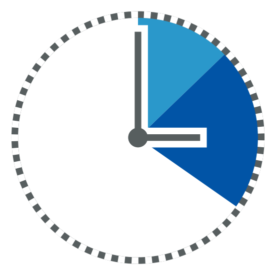
"The congestion getting off campus at 5 p.m. is unacceptable. I have to stay late to avoid sitting on the bus for an extra 40 minutes."

"We need a better way to get from South Waterfront to westbound US-26. The gridlock through downtown in the late afternoon has me on a 5 a.m. to 2 p.m. schedule."

Congestion is a current challenge and a long-term threat to OHSU.

Peak congestion on and off Marquam Hill impacts motorists and transit riders in a significant way. Certain corridors and key intersections, such as Sam Jackson Park Road and Terwilliger Road, create massive bottlenecks.

It is now common practice for bus drivers to let passengers off during the evening peak so that they can walk down the hill.



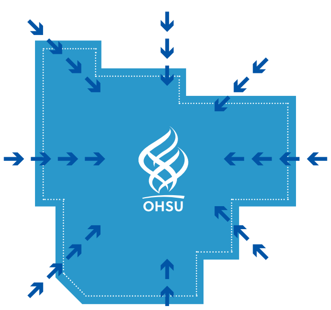
In the Portland region, hours of congestion and daily vehicle hours of delay have grown by more than 13% and 22%, respectively, since 2013.

What We Heard

"I cannot afford any of the housing that is close enough to OHSU."

"As housing costs close in soar, employees are going to be commuting from farther and farther away."

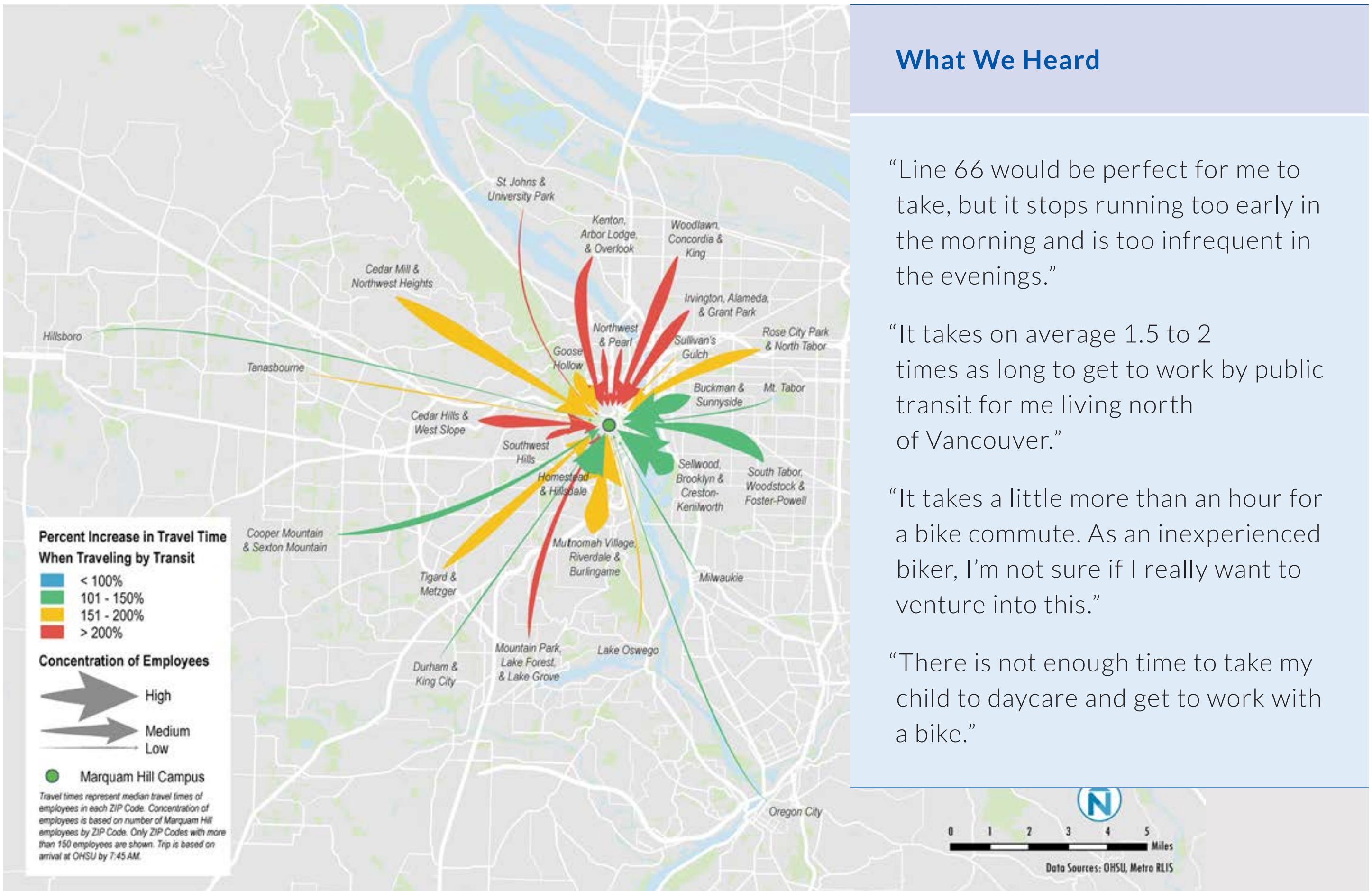
As regional housing costs increase, transportation and access is a growing factor in employee attraction and retention.



OHSU is a regional employer, with 47% of employees living outside Portland.

Median home prices in the City of Portland increased by 226% between 1996 and 2016, much faster than other cities in the region.

The average distance is 8.5 miles for non-SOV commutes and 11.5 miles for SOV commutes. A greater share of OHSU employees will likely be commuting farther distances as employees search for less expensive housing.



What We Heard

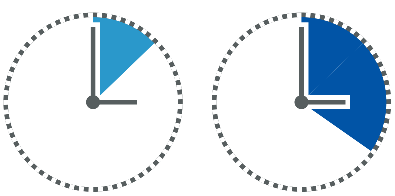
"Line 66 would be perfect for me to take, but it stops running too early in the morning and is too infrequent in the evenings."

"It takes on average 1.5 to 2 times as long to get to work by public transit for me living north of Vancouver."

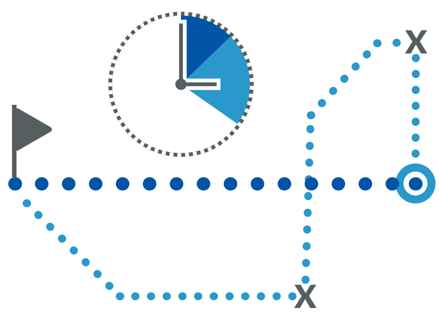
"It takes a little more than an hour for a bike commute. As an inexperienced biker, I'm not sure if I really want to venture into this."

"There is not enough time to take my child to daycare and get to work with a bike."

For many, driving and parking remains the most convenient choice.



Many employees continue to drive because it is still faster than other modes. The number one reason OHSU employees indicated they drove to work was to "save time." Based on ECO survey respondent data, the average daily commute for employee drive alone trips was 48 minutes, compared with 69 minutes for light rail or 86 minutes for bus.



For many employees, local and regional transit does not provide enough direct or frequent service, especially for employees that commute during off-peak hours.

Many employees value the flexibility of having their own car at work in case of emergency, errands, or childcare.

What We Heard

"Some people still have a parking permit but don't use it. They don't want to give it up because there's a 10+ year wait list to get it back again."

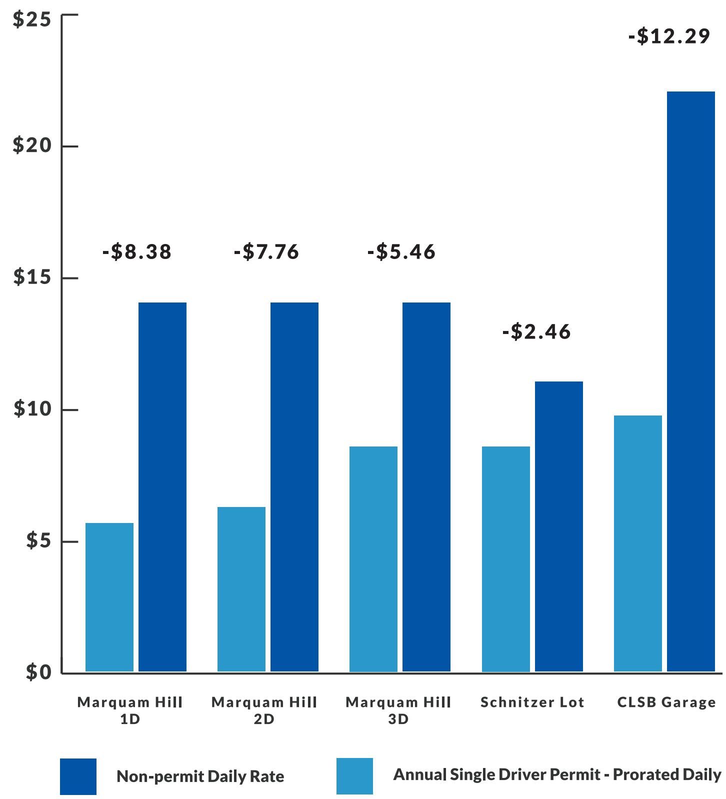
"I've waited for a 2D permit for 10 years. I am trying not to change my job just for the permit."

"When I got hired, everyone told me to sign up for every permit. I did, even though I rarely drive."

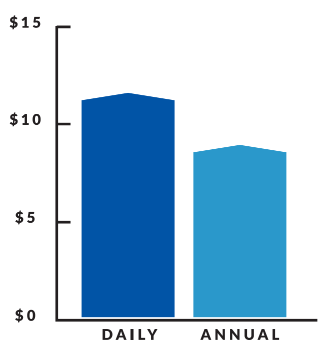
"The permit wait time is ridiculous and the fact that non-clinical and provider staff get 'priority' makes me feel undervalued as a nurse."

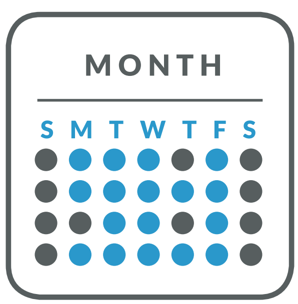
"Monthly permit holders with the highest wages pay less to park than the lowest wage workers who pay a much higher daily parking rate."

Annual Parking Permit Holder Rate vs. Non-permit Daily Rate



Annual permits incentivize driving and create employee frustration.





Annual parking permits offer a steep discount when compared with daily "market" rates. For example, holders of a 1D permit on Marquam Hill pay the equivalent of $8.38 less per day than the current daily rate.

Annual permits represent a "sunk" cost for employees. Once an employee pays for it, they want to get their money's worth.

Due to the long parking wait lists, employees are encouraged to sign up for a parking permit. Once they have one, they are discouraged from giving them up, even if they no longer drive.

On average, employees on the parking waitlist are signed up for four different permits. Many believe the current system is inequitable.

What We Heard

"I would be willing to bike 12 miles round trip to work if there were better bike lanes from my house in northeast to the tram."

"Some of the bike routes to OHSU are on a busy road or they run through areas that do not feel safe in parts. If there were better and more designated routes from my home, I would bike to work every day."

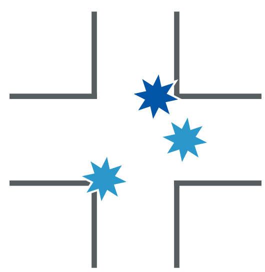
"I would gladly ride to work if I had a place to shower for free near my workspace."

"If telecommuting were more accepted I would not be looking outside OHSU for a different job right now."

Many employees would like to walk or bike, but do not feel comfortable, safe, or well-served by existing facilities. Many employees want to telecommute, yet policies are inconsistent.

More than one-third of employees indicated that they would like to bike or walk over their current mode.

Accessing Marquam Hill via bike can be challenging for many people due to the topography and higher-speed corridors.



A number of key corridors and intersections in proximity to, or directly serving OHSU have a greater share of collisions. S.W. Campus Dr. and S.W. Terwilliger Blvd. had the highest number of collisions on roadways near campus; 2004 – 2013.

Telecommuting at OHSU remains very limited at less than 1% of commutes, compared to almost 8% in the City of Portland.

To push the drive-alone rate even lower, OHSU needs a well-defined vision and goals framework.

4.

What is the OHSU Vision?

Over the past two decades, OHSU developed and implemented a multimodal transportation program, allowing the institution to grow and provide access for its employees, students, patients, and visitors.

The current program evolved organically, as OHSU tested various policies and strategies to meet its growth and affiliate needs. While OHSU has achieved a low drive-alone rate for employees, more work is needed.

In order to push its employee drive-alone rate even lower, and provide a first-class mobility experience for all users, OHSU needs a comprehensive and well-defined vision and goals framework to guide its future work. This framework provides:

- **A strategic plan for leadership**, demonstrating how OHSU's investments in transportation support and reflect its core values.
- **A reference point for the broader OHSU community**, ensuring that transportation and mobility are fully integrated into the campus culture as well as other planning efforts and campus initiatives.
- **A guidebook for transportation and parking staff**, allowing them to operationalize the TDM Plan, engage OHSU affiliates, measure progress, adjust programs and policies, inspire change in travel behaviors, and demonstrate the benefits of investments in TDM.

The TDM Plan included a robust process with the Stakeholder Advisory Committee and OHSU staff to define a vision statement and set of goals, objectives, and performance measures. Other campus plans were reviewed to ensure alignment with OHSU's overall values — Transparency, Diversity, Quality, and Service Excellence — as well as local and regional transportation plans.

The vision, goals, objectives, and performance measures answer the following questions:

- **Vision:** What is the guiding statement for OHSU's ongoing approach to transportation, mobility, and access?
- **Goals:** What values guide this work? What are the desired outcomes?
- **Objectives:** What specific actions will allow OHSU to achieve the goals?
- **Performance Measures:** How will OHSU measure success and demonstrate the effectiveness of its transportation investments? What are the key indicators and supportive metrics that will measure performance?

Vision Statement

As a leader in health and innovation, OHSU will provide a flexible transportation program that allows employees, students, patients, and visitors to choose safe and convenient travel options to, from, and within campus. To facilitate campus growth, the transportation system will reduce reliance on single-occupancy vehicle trips through the promotion of cost-effective, sustainable, and multimodal mobility solutions.

Goals, Objectives and Performance Measures

GOAL	OBJECTIVE	PERFORMANCE MEASURE
Patient-first Prioritize the patient travel experience to ensure that OHSU is a first-choice destination for medical care.	• Inform patients about their parking and travel options early and often. • Support both inpatient and outpatient care. • Reduce overall employee demand for parking. • Reduce employee abuse of patient parking.	**Key Performance Indicators** • Patient satisfaction survey. • # of annual patient visits. • % of late/missed appointments. **Additional Metrics** • % of available parking spaces by facility. • # parking “redline” events by facility. • # of patient valet drop-offs/ retrievals. • # of patient complaints.
Employer of Choice Ensure efficient and convenient employee access so that OHSU is a first-choice employer.	• Eliminate transportation as a barrier to employee attraction/ retention. • Provide affordable, equitable, and active travel choices. • Provide parking choice, so that employees only park on the days they need to. • Encourage telecommuting for those whose roles allow for it. • Reduce travel times to/from/ within campus. • Make programs easy to use, deliver, and administer.	**Key Performance Indicators** • Employee/student satisfaction survey. **Additional Metrics** • Average travel time to campus by mode. • # of program participants. • # of employee complaints. • # of employees who cite commuting as reason for leaving or not taking position.

GOAL	OBJECTIVE	PERFORMANCE MEASURE
Multimodal Prioritize multimodal travel choices, such as transit, walking, biking, and rideshare.	• Reduce the share of single-occupancy vehicle (SOV) trips to campus. • Expand and improve bicycle/pedestrian/transit infrastructure, services, and programs. • Develop a rideshare solution that targets SOV drivers and prioritizes high-occupancy trips. • Structure financial incentives to encourage multimodal travel.	**Key Performance Indicators** • Mode share to campus by affiliate group. • Average vehicle ridership. **Additional Metrics** • Transit ridership by route/stop. • Transit service hours and frequency. • # of bike parking spaces. • # of end-of-trip facilities. • % of network complete. • #/% of rideshare trips and average vehicle occupancy per rideshare trip.
Safe and Healthy Prioritize cost-effective and fiscally sustainable investments in the transportation system.	• Improve vehicle, bicycle, and pedestrian safety and security. • Reduce vehicle miles traveled (VMT) and transportation-related greenhouse gas emissions (GHG). • Proactively link transportation to OHSU's overall health mission by promoting healthy travel options.	**Key Performance Indicators** • # of collisions on campus and key travel corridors by mode. • # of security incidents. **Additional Metrics** • Mode share of active transportation modes. • Estimated VMT and GHG per affiliate.

GOAL	OBJECTIVE	PERFORMANCE MEASURE
Cost-effective Prioritize cost-effective and fiscally sustainable investments in the transportation system.	• Prioritize mobility investments that offer the greatest cost efficiencies. • Maintain long-term financial sustainability. • Collect data consistently to inform system investments. • Ensure adequate staffing to cost-effectively implement, operate, and manage projects and programs.	**Key Performance Indicators** • Annual revenue by mode/ program. • Annual expenditures by mode/ program. **Additional Metrics** • Cost per trip/employee by mode. • Parking construction cost and annual O&M per space. • # of FTEs and contract staff.
Innovative Support investments in innovative policies, programs, and tools to keep OHSU ahead of the curve.	• Pursue a mobile commute platform to increase employee satisfaction and help manage the transportation program. • Pursue new technology platforms to support performance-based parking management. • Develop a rideshare solution that targets SOV drivers and prioritizes high-occupancy trips. • Promote and encourage the use of internal communication to reduce inter-campus travel. • Support investments in telemedicine to reduce in-person trips to campus. • Engage with local and regional partners to implement visionary transportation technology, infrastructure, policy, and programs.	**Key Performance Indicators** • Transportation/parking satisfaction survey. **Additional Metrics** • Use and integration of technology tools and platforms. • # of patients treated via telemedicine.

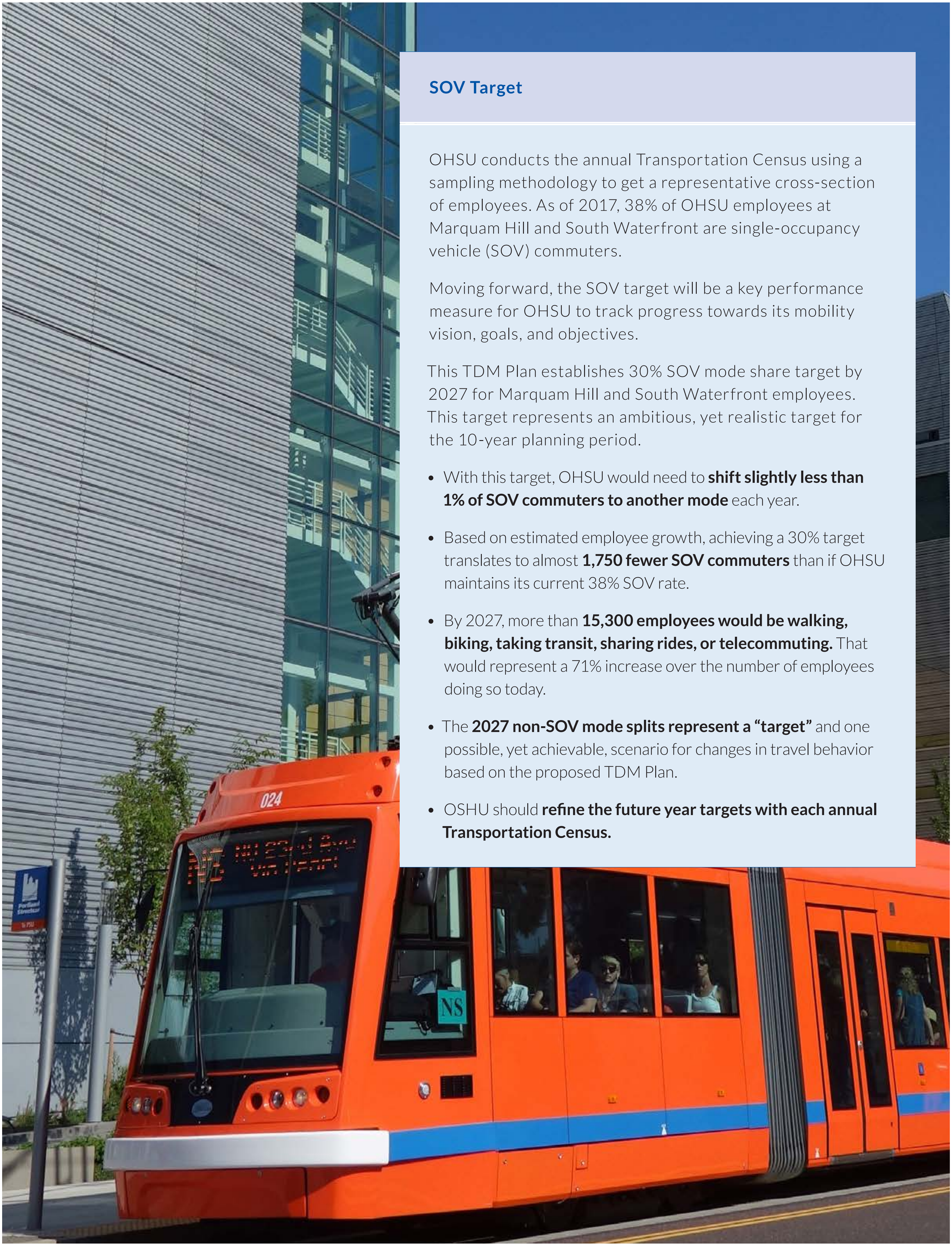
SOV Target

OHSU conducts the annual Transportation Census using a sampling methodology to get a representative cross-section of employees. As of 2017, 38% of OHSU employees at Marquam Hill and South Waterfront are single-occupancy vehicle (SOV) commuters.

Moving forward, the SOV target will be a key performance measure for OHSU to track progress towards its mobility vision, goals, and objectives.

This TDM Plan establishes 30% SOV mode share target by 2027 for Marquam Hill and South Waterfront employees. This target represents an ambitious, yet realistic target for the 10-year planning period.

- With this target, OHSU would need to **shift slightly less than 1% of SOV commuters to another mode** each year.
- Based on estimated employee growth, achieving a 30% target translates to almost **1,750 fewer SOV commuters** than if OHSU maintains its current 38% SOV rate.
- By 2027, more than **15,300 employees would be walking, biking, taking transit, sharing rides, or telecommuting.** That would represent a 71% increase over the number of employees doing so today.
- The **2027 non-SOV mode splits represent a “target”** and one possible, yet achievable, scenario for changes in travel behavior based on the proposed TDM Plan.
- OSHU should **refine the future year targets with each annual Transportation Census.**



MODE	2017 - EXISTING		2027 - TARGET	
Drive Alone	38%	5,522	30%	6,584
Carpool	4%	581	6%	1,262
Bike	17%	2,470	18%	4,005
Walk	6%	872	7%	1,481
Transit	30%	4,359	32%	6,913
Dropped off	2%	291	2%	439
Rideshare	2%	291	3%	713
Telecommute	<1%	145	2%	549

Marquam Hill and South Waterfront employees only

The TDM Plan establishes 30% SOV mode targets by 2027. This target is ambitious yest realistic for the 10-year planning period.

5.

How will OHSU Achieve the Vision?

The OHSU TDM Plan establishes an aspirational vision and set of goals for transportation and mobility.

The short- and long-term approach must be ambitious so that OHSU can grow without gridlock, ensure long-term financial sustainability, and create a first-class travel experience for its current and future employees, students, patients, and visitors.

The TDM Plan builds off OHSU's strong multimodal foundation, but pushes forward-thinking solutions. Solving OHSU's existing and future challenges in the face of rapid growth requires a multifaceted set of solutions. In the end, OHSU will achieve success if it can continually emphasize the following key concepts:

There is no "silver bullet." The recommendations represent a package of necessary reforms. Implementation of one or two items alone will not solve OHSU's mobility and parking challenges.

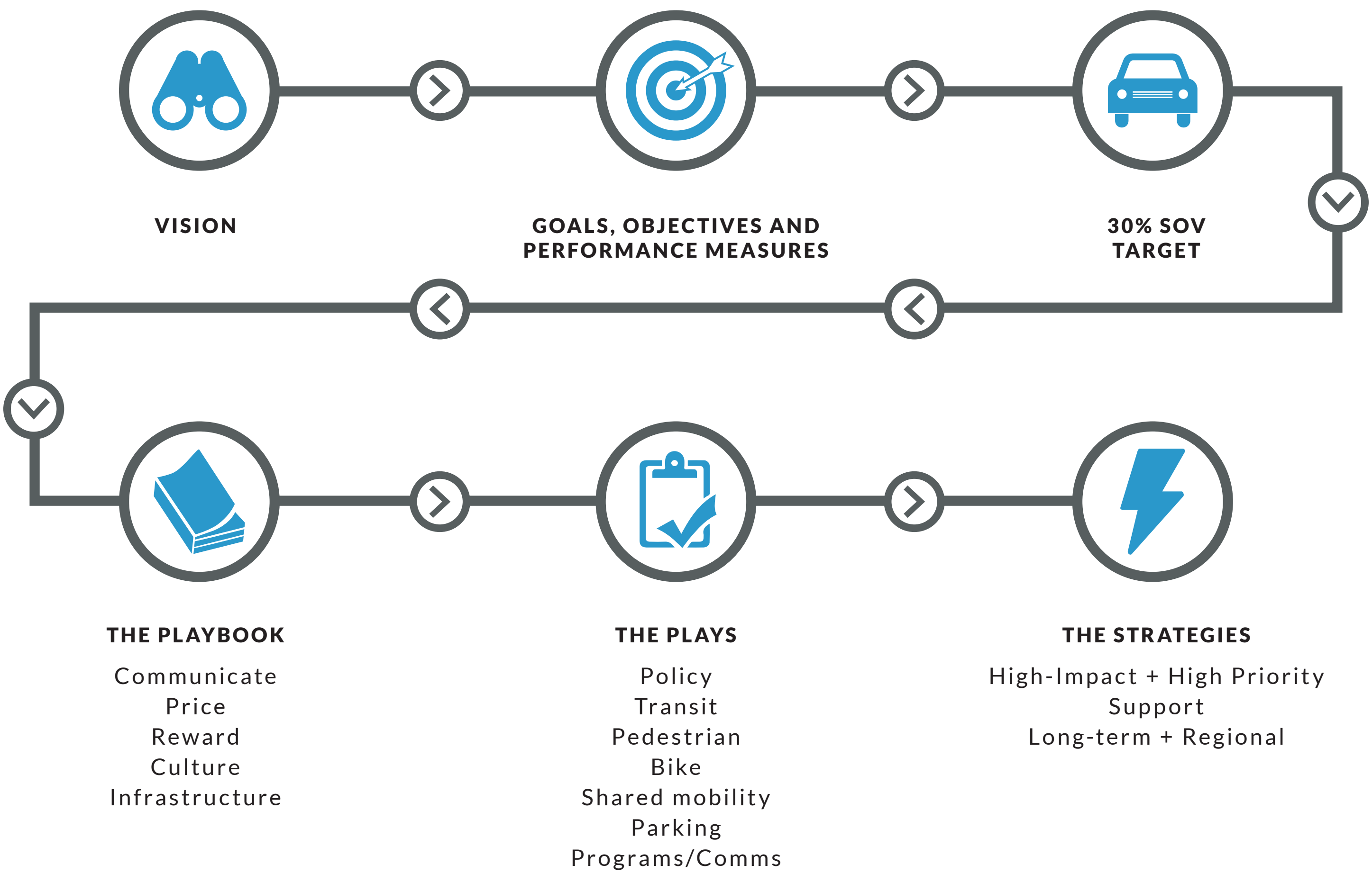
Change is difficult, but necessary. The Plan offers bold and innovative approaches. OHSU faces significant challenges; solving them will require them to go beyond the status quo.

Communication is vital. Ongoing communication of the Plan's rationale, benefits to the institution and individual, and the practical details will be crucial to increasing program participation, improving the patient and employee experience, and securing stakeholder buy in.

The Plan is a "living" document. The Plan provides a roadmap and framework for moving forward. It is based on detailed analysis and best practices, but no TDM plan gets it all right the first time. OHSU must be flexible and continually evaluate its performance. A "test and learn" approach based on robust data will allow OHSU to respond effectively as local and regional conditions change.

Immediate improvement is needed...and possible. OHSU has challenges today. The upcoming Portland Aerial Tram shutdown in mid-2018 is also a significant milestone to address. Certain strategies should be prioritized to secure tangible progress and build further support for future phases of work.

How do we get there?



The Playbook

The OHSU TDM Plan Playbook includes five primary initiatives or “levers” to reduce single-occupancy vehicle trips and improve the overall travel experience to, from, and within OHSU.

All of these elements are required to ensure long-term success. Too much emphasis on one, or ignoring some altogether, will reduce the efficiency of OHSU’s mobility program and trip reduction efforts.

PLAYBOOK INITIATIVES
CULTURE Adopt consistent policies campus-wide that integrate the six Plan goals into daily life at OHSU.
PRICE Use parking pricing to achieve desired outcomes and fund multimodal travel.
REWARD Provide incentives and rewards to make it easier to take non-SOV modes.
COMMUNICATE Make it easy to find information. Inform about travel behavior. Promote benefits and outcomes.
INFRASTRUCTURE Invest in new infrastructure that cost-effectively supports access to, from and within OHSU.

The Plays

OHSU will implement the Playbook via seven categories, or Plays. All of the Plays and their strategies should work in tandem and mutually support one another. For example, OHSU's ability to price parking effectively is dependent upon not only the price of parking itself and parking technology, but also the larger policy and communication strategies around why OHSU charges for parking and how it benefits campus access and mobility.

The seven Plays include:

- **POLICY (PO)**
- **TRANSIT (T)**
- **PEDESTRIAN (PN)**
- **BIKE (B)**
- **SHARED MOBILITY (SM)**
- **PARKING (P)**
- **PROGRAMS + COMMUNICATIONS (PC)**

	PO	T	PN	B	SM	P	PC
THE PLAYBOOK	**THE PLAYS**						
CULTURE	✓	✓	✓	✓	✓	✓	✓
PRICE	✓				✓	✓	✓
REWARD	✓	✓	✓	✓	✓		✓
COMMUNICATE	✓	✓	✓	✓	✓	✓	✓
INFRASTRUCTURE		✓	✓	✓	✓	✓	

The Strategies

The seven Plays and their respective strategies are summarized below. A total of 34 strategies are included in the Plan.

While every strategy is important, not every strategy is "equal." The TDM Plan categorizes each strategy into one of three implementation categories.

- **High-Impact** + **High-Priority:** A strategy that has proven ability to reduce SOV trips and parking demand substantially and/or improve the travel experience in dramatic ways. A strategy that should be implemented in advance of other strategies and/or to address an immediate or short-term challenge, such as the Aerial Tram shutdown.
- **Support:** A strategy that facilitates, enhances, or supports one or more of the other strategies.
- **Long-term** + **Regional:** A strategy that requires significant additional evaluation, planning, or analysis. These strategies are long-term efforts that will likely require regional partnerships and funding.

High-Impact + High Priority

PO.2 – Active Workplace Culture and Training

Adopt official policies that support an active and flexible work environment that makes it easy to walk, bike, share rides, or take transit to and from OHSU. Enhance executive and management training to ensure that OHSU leaders fully and consistently integrate mobility programs and policies into their departments.

While seemingly simple, clear and consistent policies can dramatically shift the culture around transportation. Given the upcoming impacts of the tram shutdown, and bold approaches proposed in this Plan, a renewed focus on the culture of mobility at OHSU is a priority.

PO.4 – Telecommuting Policy and Program

Further develop and adopt robust and consistent telecommuting policies and training to increase the share of employees telecommuting one or more days a week.

Less than 1% of OHSU employees telecommute, yet many indicate that they would like to start, or do so more. Consistent policies and well-trained managers would increase the number of employees telecommuting, a cost-effective way to quickly reduce employee parking demand.

Additional direct service to campus could boost employee ridership.

Continued investment in high-quality infrastructure will increase pedestrian safety and comfort.

T.1 – Transit Service Improvements

Work with TriMet and C-TRAN to provide more express and frequent bus service to OHSU campuses. Restructure the OHSU shuttle service to increase frequency over time and minimize duplicative services. Explore a new shuttle contract to improve service and vehicle quality.

More direct and frequent service could capture some of the existing OHSU employees who still find driving to be the most convenient commute mode. A new shuttle service and operating plan will be essential during the five-week tram shutdown, yet should include a long-term vision to respond to OHSU growth.

PN.1 – Pedestrian Access Improvements

Work with local and regional partners to complete pedestrian network gaps to, from, and within campus. Continue to invest in a connected street network and roadway improvements that prioritize safety, comfort, and access for all pedestrians.

Priorities should include high-collision corridors and existing walking paths on and off Marquam Hill. Such improvements will greatly improve pedestrian flow and safety on campus, as well as set the stage for increased walking activity, especially during the Tram shutdown.

B.1 – Bike Access Improvements

Work with local and regional agencies and partners to complete gaps in the bicycle network to, from, and within campus. Continue to invest in a connected network of bike facilities that is comfortable and accessible for a range of bike riders.

As feasible, prioritize physically separated facilities on major corridors. Such improvements will greatly improve bicycle safety to and from campus, as well as set the stage for increased biking activity, especially during the Tram shutdown.

B.2 – Bike Parking Improvements

Continue to invest in a diverse and high-quality bike parking program at OHSU. Prioritize expansion of bike parking to meet increasing demand. Plan for and invest in major new facilities, such as expanded bike valet on South Waterfront and a bike station on Marquam Hill. Require high-quality bike parking facilities for all new development.

New facilities should not only provide a safe, secure space for parking, but also incorporate and/or easily connect with showers and locker rooms.

SM.1 – Employee and Patient Lyft Program

Partner with Lyft to implement an employee rideshare solution that partially subsidizes certain trip types. Enhance the patient experience by partnering with Lyft to subsidize a portion of non-emergency medical trips. Streamline rideshare loading on campus by designating and developing pick-up, drop-off, and vehicle staging policies and locations throughout campus. OHSU is currently negotiating with Lyft to launch a pilot program in 2018. The Lyft subsidy and program would be facilitated by implementation of the Luum commute platform (Strategy PC.4).

SM.2 – Internal and Dynamic Carpooling Program

Launch an on-demand/dynamic carpooling service internal to OHSU employees, and provide subsidies for SOV employees who share a ride. Peer-to-peer, on-demand ridesharing matches co-workers and neighbors based on home location, route, predicted traffic, and user feedback.

OHSU is currently negotiating with Scoop to launch a pilot program in 2018. The Scoop carpooling program would be facilitated by implementation of the Luum commute platform (Strategy PC.4).

P.1 – Permits and Daily Pricing

Transition away from monthly parking permits to daily parking permits at all facilities, allowing employees to pay for parking only on the days they drive. Vary pricing charges by location and time of entry to manage demand. Automatically link daily payments to employee account and commute platform to facilitate easy use. Utilize parking restrictions/eligibility requirements as needed to manage employee demand for parking.

Daily parking charges can dramatically affect parking demand. Daily parking charges eliminate the "sunk cost" of a monthly or annual permit, reducing the incentive to drive every day to get "my money's worth." A daily pricing structure also offers flexibility for employees depending on their daily needs and does not lock them into any one mode.

PC.2 – Daily Financial Incentives

Develop and implement a daily financial incentive program to reduce SOV mode share and promote biking and walking to campus.

A daily financial incentive program would complement daily parking pricing (Strategy P.1) and an employee commute platform (Strategy PC.4), offering a strong "carrot" to incentivize non-SOV travel.

PC.4 – Employee Commute Platform

Unify all mobility related information and services in an online and mobile commute platform, including a dashboard with modal information, commute calendar, trip stats, incentives, and payment/incentive integration. Integrate with real-time data and other 3rd-party mobility platforms.

OHSU is currently negotiating and planning with Luum to launch a commute platform in April of 2018 in anticipation of the Tram shutdown.

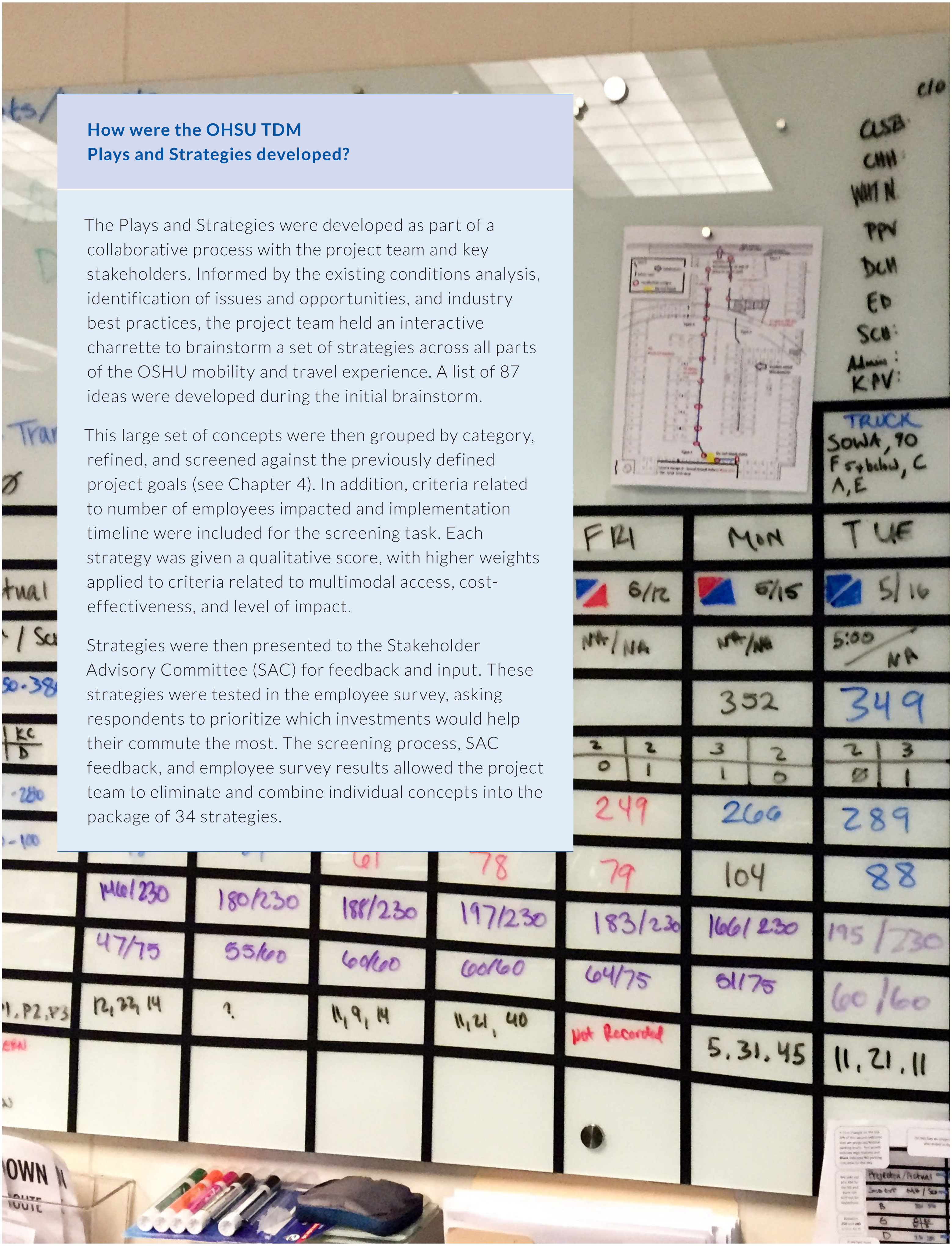
Annual permits represent a sunk cost and incentivize driving. An employee commute platform, such as Luum, allows employees to pay only on the days they need to drive.

How were the OHSU TDM Plays and Strategies developed?

The Plays and Strategies were developed as part of a collaborative process with the project team and key stakeholders. Informed by the existing conditions analysis, identification of issues and opportunities, and industry best practices, the project team held an interactive charrette to brainstorm a set of strategies across all parts of the OSHU mobility and travel experience. A list of 87 ideas were developed during the initial brainstorm.

This large set of concepts were then grouped by category, refined, and screened against the previously defined project goals (see Chapter 4). In addition, criteria related to number of employees impacted and implementation timeline were included for the screening task. Each strategy was given a qualitative score, with higher weights applied to criteria related to multimodal access, cost-effectiveness, and level of impact.

Strategies were then presented to the Stakeholder Advisory Committee (SAC) for feedback and input. These strategies were tested in the employee survey, asking respondents to prioritize which investments would help their commute the most. The screening process, SAC feedback, and employee survey results allowed the project team to eliminate and combine individual concepts into the package of 34 strategies.

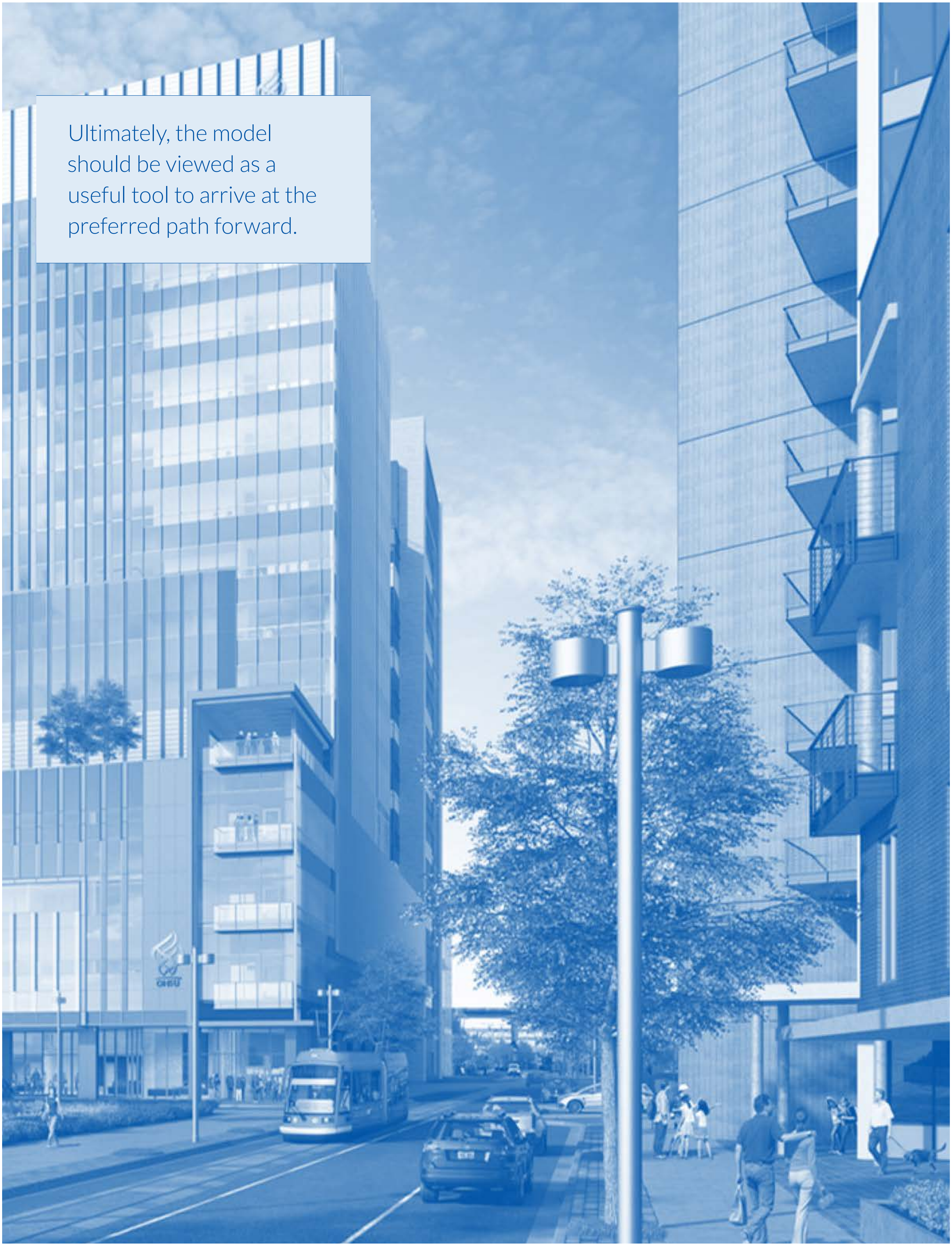


THE PLAYS	STRATEGIES	DESCRIPTION	HIGH-IMPACT + HIGH-PRIORITY	SUPPORT	LONG-TERM + REGIONAL	TIMELINE (YEARS)			
						IMMEDIATE (0 – 1)	SHORT-TERM (1 – 3)	MID-TERM (3 – 6)	LONG-TERM (6 – 10)
POLICY	PO.1 Goals, Performance Measures, and Monitoring	Adopt official goals and metrics to guide the implementation of the TDM Plan, as well as future mobility investments.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	PO.2 Active Workplace Culture and Training	Adopt official policies that support an active and flexible work environment. Enhance executive and management training to ensure that OHSU leaders fully and consistently integrate mobility programs and policies into their departments.	✓			Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	PO.3 Staffing Support	Attract and hire staff to fulfill existing and future staffing needs. Reassess vendor and contract agreements on a consistent basis.		✓		Monitor + Adjust	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	PO.4 Telecommuting Policy and Program	Further develop and adopt robust policies and consistent training to increase the share of employees telecommuting one or more days a week.	✓			Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
	PO.5 Employee Housing Assistance	Work with local and regional partners to support the development of more housing at or near OHSU campuses. Evaluate an OHSU housing subsidy and/or assistance program as part of employee recruitment and retention.			✓		Planning + Testing	Soft Launch	Monitor + Adjust
	PO.6 Daily Services on Campus	Support the development and provision of on-campus daily services and amenities to reduce non-commute vehicle trips and improve affiliate satisfaction.			✓		Planning + Testing	Soft Launch	Monitor + Adjust
TRANSIT	T.1 Transit Service Improvements	Continue to work with regional partners to expand transit service to OHSU. Key priorities include additional express service that increase the convenience of transit for OHSU's dispersed employee and patient population.	✓			Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
	T.2 Access to Transit Improvements	Continue to invest in infrastructure improvements that enhance connections to key transit corridors and stops.		✓		Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
	T.3 Regional Water Taxi Service	As a long-term strategy, support a regional feasibility study of water taxi service that would connect OHSU's South Waterfront campus to major destinations along the Willamette River.			✓		Planning + Testing	Planning + Testing	Soft Launch
	T.4 Downtown Tram/Gondola Connection	As a long-term strategy, support a regional feasibility study of a second tram or gondola that would provide a direct connection to downtown.			✓		Planning + Testing	Planning + Testing	Soft Launch
PEDESTRIAN	PN.1 Pedestrian Access Improvements	Work with local and regional partners to complete pedestrian network gaps to, from, and within campus. Continue to invest in a connected street network and roadway improvements.	✓			Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
	PN.2 Pedestrian Safety Program	Implement pedestrian-focused safety programs that decrease the risk of collisions and increase pedestrian comfort and safety.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
	PN.3 Pedestrian Rewards Program	Create a pedestrian rewards program that incentivizes and encourages walking trips through giveaways and friendly competition.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust

THE PLAYS	STRATEGIES	DESCRIPTION	HIGH-IMPACT + HIGH-PRIORITY	SUPPORT	LONG-TERM + REGIONAL	TIMELINE (YEARS)			
						IMMEDIATE (0 – 1)	SHORT-TERM (1 – 3)	MID-TERM (3 – 6)	LONG-TERM (6 – 10)
BIKE	B.1 Bike Access Improvements	Work with local and regional partners to complete gaps in the bicycle network to, from, and within campus. Continue to invest in a connected bike network. As feasible, prioritize physically separated facilities on key corridors.	✓			Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
BIKE	B.2 Bike Parking Improvements	Continue to invest in a diverse and high-quality bike parking program. Prioritize expansion of bike parking to meet increasing demand. Plan for and invest in major new parking facilities.	✓			Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
BIKE	B.3 Bike Share Program	Simplify, expand, and subsidize access to bike share for employees, students, patients, and visitors.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
BIKE	B.4 Bike Rewards Program	Create a rewards program to encourage more employee bike trips, promote safe riding, and incentivize ongoing bicycle commuting.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
SHARED MOBILITY	SM.1 Employee and Patient Lyft Program	Partner with Lyft to implement an employee ride hail solution that partially subsidizes certain trip types to encourage a reduction in parking demand and congestion. Enhance the patient experience by partnering with Lyft to provide non-emergency medical trips.	✓			Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
SHARED MOBILITY	SM.2 Internal and Dynamic Carpooling Program	Launch a dynamic carpooling service internal to OHSU employees. Provide subsidies for employees who share a ride.	✓			Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
SHARED MOBILITY	SM.3 Enhanced Car Share Program	Subsidize car share trips and increase the number of car share services and vehicles on campus to allow non-driving employees the flexibility to better manage midday or unplanned trips.		✓		Planning + Testing	Full Launch	Monitor + Adjust	Monitor + Adjust
PARKING	P.1 Permits and Daily Pricing	Transition away from annual parking permits to daily parking at all employee facilities, allowing employees to pay for parking only on the days they drive.	✓			Planning + Testing	Soft Launch	Full Launch	Monitor + Adjust
PARKING	P.2 Employee Parking Operations	Revise key employee parking policies to improve and support parking management.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
PARKING	P.3 Patient Parking Experience	Continue to invest in a high-quality and convenient parking experience for patients and their visitors. Prioritize consistent availability and a seamless experience linked to appointment scheduling.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
PARKING	P.4 Valet Parking Services	Expand valet parking services for employees, patients, and visitors. Require electronic valet at all facilities. Evaluate a universal valet service.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
PARKING	P.5 Parking Safety and Security	Improve safety and security at parking facilities, especially more remote parking facilities.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust

THE PLAYS	STRATEGIES	DESCRIPTION	HIGH-IMPACT + HIGH-PRIORITY	SUPPORT	LONG-TERM + REGIONAL	TIMELINE (YEARS)			
						IMMEDIATE (0 – 1)	SHORT-TERM (1 – 3)	MID-TERM (3 – 6)	LONG-TERM (6 – 10)
PARKING	P.6 Carpool Parking Program	Support and incentivize carpooling by offering free or more deeply discounted carpool parking. Designate carpool-only spaces at key facilities.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
	P.7 Expand Parking Supply	Strategically invest in new and/or replacement parking facilities to support short- and long-term growth. Explore additional opportunities for remote parking.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	P.8 Facility Access Control and Enforcement	Continue to upgrade access control at all parking facilities to support enforcement and parking management.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
	P.9 Data Collection/ Reporting	Enhance parking data collection and reporting to facilitate management and transparency of the system.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
PROGRAMS + COMMUNICATIONS	PC.1 Mobility Comms	Create a unified and comprehensive communications program that provides information on mobility policies, programs, and services toaffiliates and the community at large.		✓		Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	PC.2 Daily Financial Incentives	Develop and implement a daily financial incentive program to reduce SOV mode share and promote biking and walking to campus.	✓			Planning + Testing	Soft Launch	Monitor + Adjust	Monitor + Adjust
	PC.3 Commute Challenges	Host commuter challenges via the Luum commute platform to encourage the use of non-SOV modes and promote friendly competition within and between departments.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust
	PC.4 Employee Commute Platform	Unify all mobility services in a mobile commute platform, including a dashboard with modal information, commuter trip stats, and payment/incentive integration with OHSU HR and Payroll departments. Integrate real-time data feeds and other 3rd-party mobility apps into the platform.	✓			Full Launch	Monitor + Adjust	Monitor + Adjust	Monitor + Adjust
	PC.5 Wayfinding Improvements	Improve wayfinding for users of all modes to improve navigation to, from, and within campus. Prioritize the wayfinding recommendations included in the OHSU Night Access Plan.		✓		Soft Launch	Full Launch	Monitor + Adjust	Monitor + Adjust

Ultimately, the model should be viewed as a useful tool to arrive at the preferred path forward.



6.

What are the Estimated Impacts?

The OHSU TDM Plan proposes a comprehensive package of strategies to reduce drive-alone rates and parking demand, increase multimodal access, and improve the overall travel experience to, from, and within OHSU.

In order to understand the potential trip reduction and financial implications of these investments, as well as refine the strategies themselves, a model was developed that illustrates the financial impact, mode split, and parking demand for different levels of investment in TDM and parking.

This exercise provided a planning-level estimate of the costs and trip reduction benefits of the TDM Plan. While based on industry standards, the latest empirical research, and best practices, it includes several assumptions about how OHSU will grow and change, and how OHSU affiliates will modify their travel behavior in response to the TDM strategies. There are dozens of possible iterations of the model, and modifying the assumptions and changing the scenarios would result in different outputs.

This chapter provides a high-level summary of the modeling effort and its results. The results represent the best estimate of potential outcomes. Ultimately, the model should be viewed as a useful and ongoing tool to evaluate the “goal posts” and tradeoffs inherent in the TDM Plan to arrive at the preferred path forward. As discussed in Chapter 5, the TDM Plan is “living” document, ready for ongoing revision and recalibration over time.

Core Assumptions

As with any modeling exercise where information is imperfect, a number of assumptions were made. In general, a best estimate was based on existing programs and revenues, experience with other institutions, and professional judgment. This model used the following basic assumptions:

- Increases in campus population by user group:
  - Employees: 3% baseline annual average, with anticipated growth spikes in 2018 (opening of Knight Cancer Research Building), 2019 (opening of Center for Health & Healing 2 and Rood Family Pavilion), and 2023 (opening of Hospital Tower).
  - Students: 1% annual average.
  - Patients: 4.1% annual average.
- Price elasticity of demand for parking was assumed to be -0.3 (i.e. a 10% increase in parking price reduces parking demand by approximately 3%).
- 3% annual inflation rate.
- Parking costs:
  - Construction: $70,000-$82,000 per space.
  - Operations and Maintenance: $400 per space per year (lot) and $650 per space per year (garage).
  - 30-year loan at 4.3% rate.

Methodology

The basic modeling steps included:

1. Review current campus population and parking supply/demand by user group (employees, students, patients, and visitors). Parking demand is based on observed occupancy data.
2. Estimate future population of each user group, based on OHSU assumed growth rates.
3. Project parking supply changes based on loss or addition of parking facilities. Develop three parking supply scenarios – Planned, Moderate, and Maximum.
4. Develop list of parking and TDM strategies. Differentiate strategy investments into three scenarios – Baseline TDM, Moderate TDM, Maximum TDM.
5. Estimate trip reduction impacts for each strategy and for each TDM scenario. Elasticities developed by the California Air Pollution Control Officers Association (CAPCOA) were applied for selected measures, representing the best existing research on trip and parking generation. A range of trip demand elasticities by scenario estimated via CAPCOA is shown in Figure 1.
6. Estimate implementation costs and timeline for each strategy and scenario. Costs and phasing are based on a combination of existing OHSU programs costs, industry standards, and assumptions.
7. Estimate future parking demand for each user group based on existing parking demand ratios and anticipated TDM impacts.
8. Measure the revenue and expenditure impacts of both new TDM strategies and the effects of those measures on revenues/expenditures.

Scenarios

The model analyzed a series of scenarios calibrated around two major inputs: 1) level of TDM investment, and 2) amount of new parking construction. Figure 1 below summarizes the TDM investment scenarios and their estimated trip reduction impact. The Strategy Dashboard provides a more detailed description of the strategies by level of investment. Figure 2 summarizes the assumed parking additions and subtractions by scenario.

Figure 1. Summary of TDM Scenarios (2018 – 2027)

TDM SCENARIO		
BASELINE	**MODERATE**	**MAXIMUM**
Status quo parking management and TDM programs/policies	**Baseline Scenario, plus:** • Phased implementation of 34 TDM strategies • Daily parking ($) • $2 per day daily bike/walk incentive • Shuttle Service (+) • Transit Access (+) • Pedestrian Access (+) • Bike Access/Parking (+) • Rewards (+) • Shared Mobility (+)	**Moderate Scenario, plus:** • Accelerated implementation of 34 TDM strategies • Daily parking ($$$) • $5 per day daily bike/walk incentive • Shuttle Service (++) • Transit Access (++) • Pedestrian Access (++) • Bike Access/Parking (++) • Rewards (++) • Shared Mobility (++)

ESTIMATED ADDITIONAL TRIP REDUCTION (BY END OF 2027)			
	BASELINE	**MODERATE**	**MAXIMUM**
Patients/Visitors	No additional impact	5 – 7%	9 – 10%
Employees/Students	No additional impact	14 – 17%	19 – 21%

Figure 2. Summary of Parking Scenarios (2018 – 2027)

	PARKING SCENARIOS					
	PLANNED		MODERATE		MAXIMUM	
FACILITY	YEAR	SPACES	YEAR	SPACES	YEAR	SPACES
Knight Cancer Research Building	2018	74	2018	74	2018	74
Rood Family Pavilion	2019	607	2019	607	2019	607
Block 33 Lot	2020	-191	2020	-191	2020	-191
DOT Marquam (Lease)	2020	150	2020	150	2020	150
Schnitzer Lot	--	--	--	--	2021	-526
Schnitzer Garage	--	--	--	--	2022	1,200
Block 33 Garage	--	--	--	--	2023	900
Hospital Tower	--	--	2023	305	2023	305
Garage C Existing	2023	-382	2023	-382	2023	-382
Garage C Replacement/ Lot 10 Garage	2024	382	2024	382	2024	382
TOTAL NET NEW SPACES		**640**		**945**		**2,519**

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Key Findings

Figure 3 summarizes the overall results of the TDM model by scenario. Figure 4, Figure 5, and Figure 6 show parking supply/demand and financial projections by year from 2018 to 2027 for three of the nine modeled scenarios: 1) Baseline TDM + Planned Parking, 2) Baseline TDM + Maximum Parking, and 3) Moderate TDM + Moderate Parking (Recommended Scenario). Scenarios 1 and 2 are highlighted because they represent two potential "extremes" for how OHSU could approach its parking and TDM investments. Scenario 3 is highlighted because it was identified as the recommended option. The results of all nine scenarios are shown in Figure 3.

Key findings include:

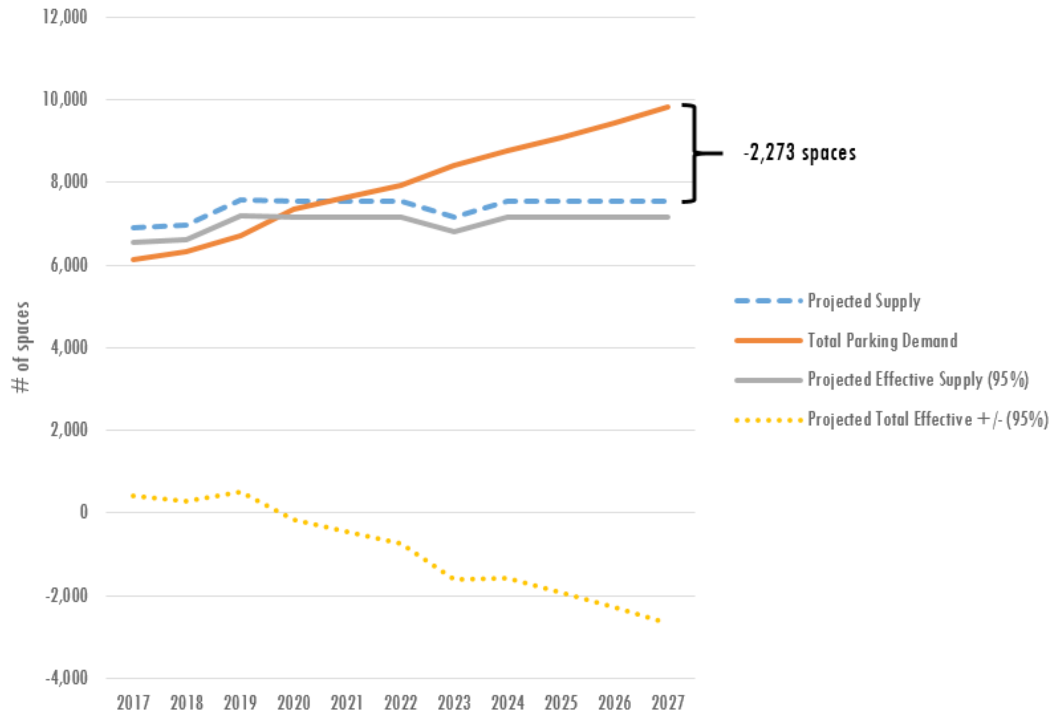
- **Doing nothing is not an option.** If OHSU continues with a status quo TDM program and only the "planned" level of parking construction, there is an estimated deficit of almost 2,300 spaces by the end of 2027.
- **Building only parking is not an option.** Even if OHSU built the maximum amount of parking, it would still have a parking deficit by the end of 2027 given projected growth and no additional SOV reduction. In addition, OHSU would likely not be able to financially sustain this level of investment in parking construction and operations.
- **More TDM investment is needed.** No matter the parking scenario, OHSU will likely have a deficit by the of 2027 if it does not work to reduce SOV trips and parking demand through additional TDM investment.
- **The recommended scenario is "Moderate TDM + Moderate Parking."** This scenario appears to present the most cost-effective mix of TDM and parking investment, while ensuring that OHSU's parking facilities are efficiently utilized to provide a "buffer" that can accommodate fluctuations in demand.
- **Maximum TDM investment is likely not cost-effective at this time.** A "maximum" level of TDM investment would potentially eliminate parking deficits, but result in cost overruns that are more substantial, while potentially resulting in inefficient use of parking facilities.
- **All scenarios run a 10-year deficit.** TDM programs and parking construction are very expensive. Given the anticipated costs, it is unlikely that revenue from parking and other existing funding sources can fully cover costs. To address the deficit, OHSU could increase the cost of parking (which would likely reduce demand and affect revenue) and identify additional new sources of revenue for the mobility program.
- **The model does not capture all of the benefits of TDM investment.** Anticipated impacts do not include wider benefits for employees, students, patients, visitors, and the community. These wider benefits include employee satisfaction and retention, overall ease of access for patients, community support for OHSU, and the opportunity costs of OHSU's land.

While the recommended scenario runs a deficit, it also allows OHSU to potentially build new patient/research facilities instead of parking, which could more than pay for the costs of the TDM program.

Figure 3. Summary of Parking and TDM Scenarios

	SCENARIO								
	TDM - BASELINE			TDM - MODERATE			TDM - MAXIMUM		
IMPACT AREA	PARKING - PLANNED	PARKING - MODERATE	PARKING - MAXIMUM	PARKING - PLANNED	PARKING - MODERATE	PARKING - MAXIMUM	PARKING - PLANNED	PARKING - MODERATE	PARKING - MAXIMUM
Peak Parking Demand (2027)	9,809	9,809	9,809	7,345	**7,345**	7,345	6,719	6,719	6,719
Parking Supply (2027)	7,536	7,845	9,419	7,536	**7,845**	9,419	7,536	7,845	9,419
Demand/ Supply Ratio (2027)	130%	125%	104%	97%	**94%**	78%	89%	86%	71%
Average Annual TDM Costs (2018-28)	$(7.4m)	$(7.4m)	$(7.4m)	$(12.3m)	**$(12.3m)**	$(12.3m)	$(15.8m)	$(15.8m)	$(15.8m)
Average Annual Parking Costs (2018-28)	$(14.6m)	$(15.5m)	$(22.9m)	$(14.6)	**$(15.5m)**	$(22.9m)	$(14.6m)	$(15.5m)	$(22.9m)
Average Annual Revenue (2018-28)	$19.3m	$19.6m	$21.1m	$24.0m	**$24.0m**	$24.0m	$24.4m	$24.4m	$24.4m
Average Annual Revenues Minus Costs	$(2.7m)	$(3.3m)	$(9.1m)	$(2.8m)	**$(3.7m)**	$(11.1m)	$(6.0m)	$(7.0m)	$(14.3m)

Figure 4. Baseline TDM + Planned Parking



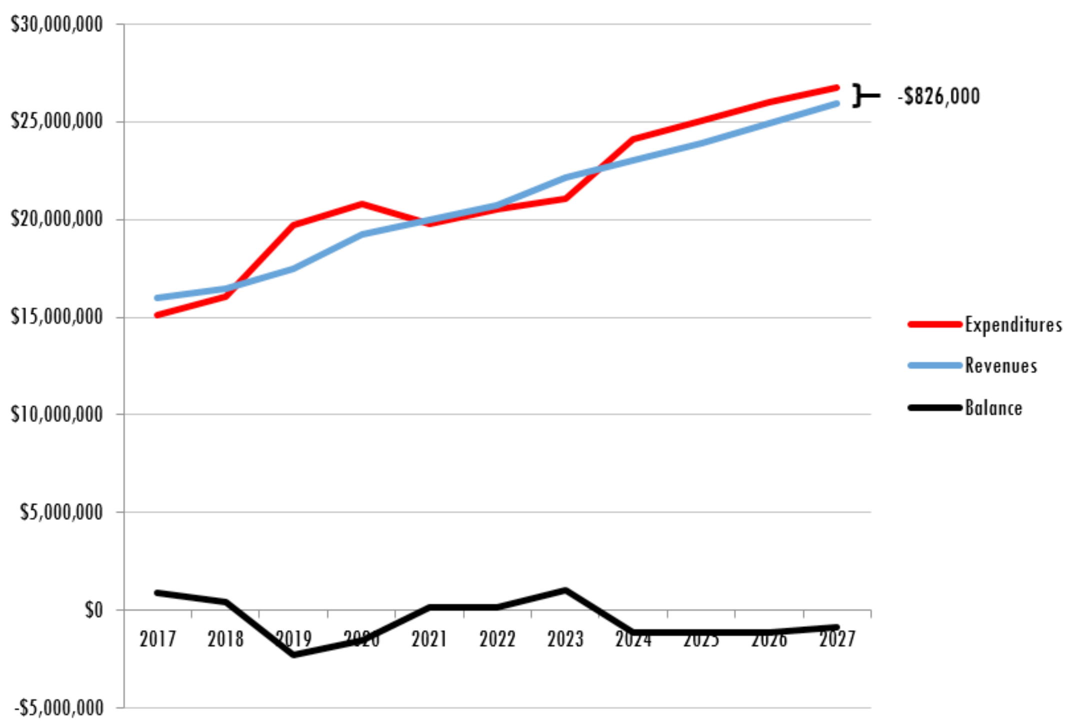
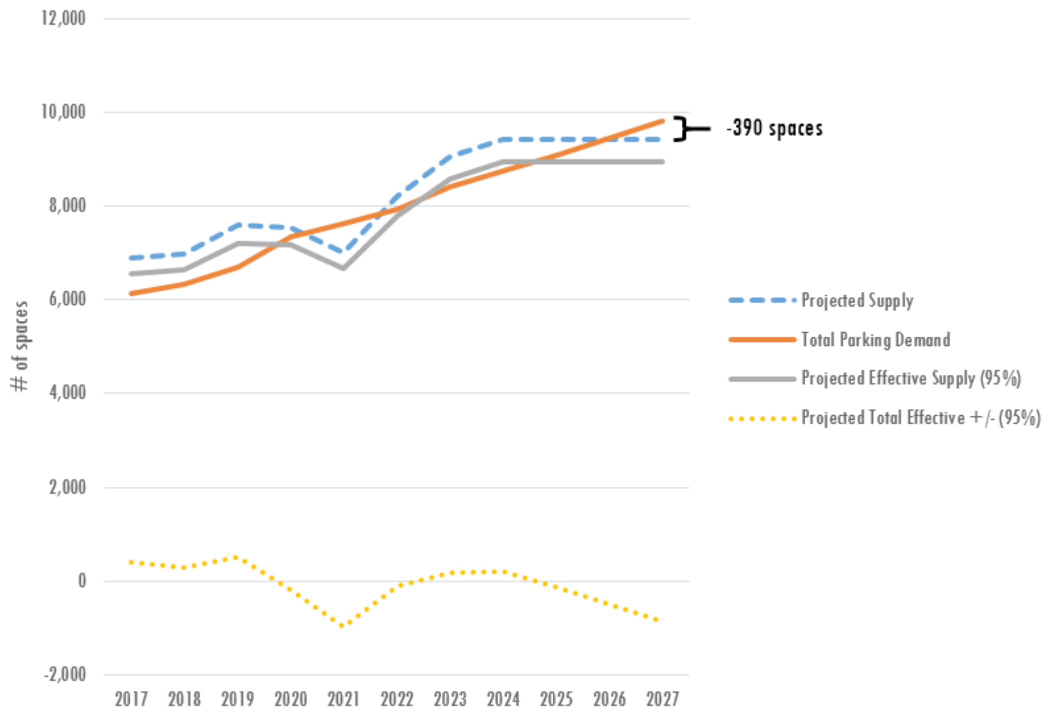


Figure 5. Baseline TDM + Maximum Parking



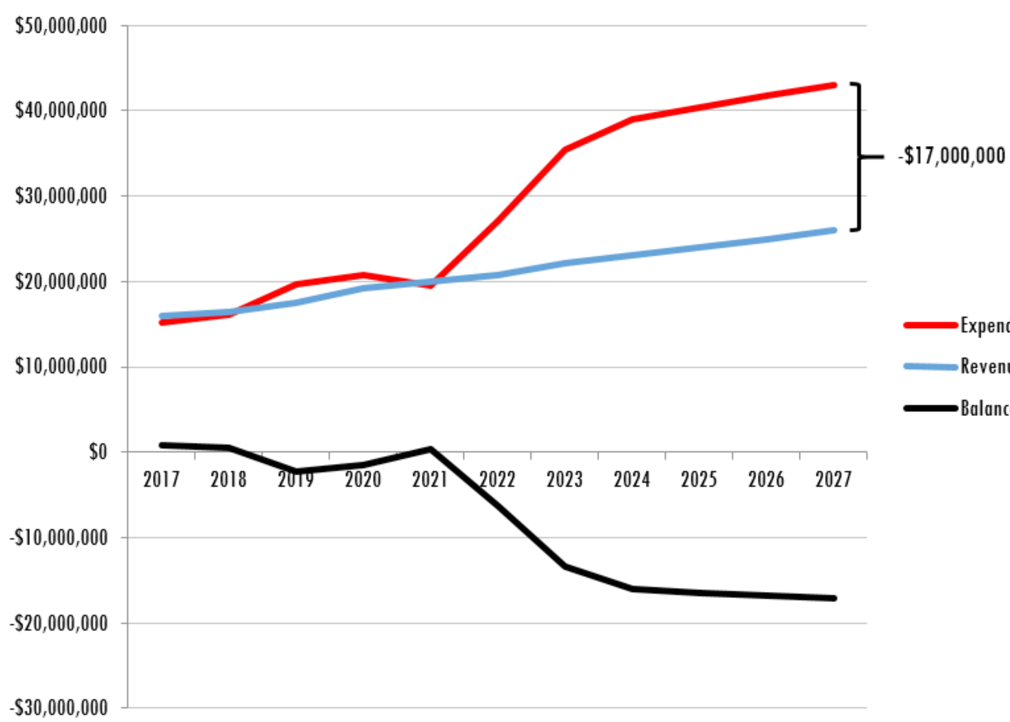
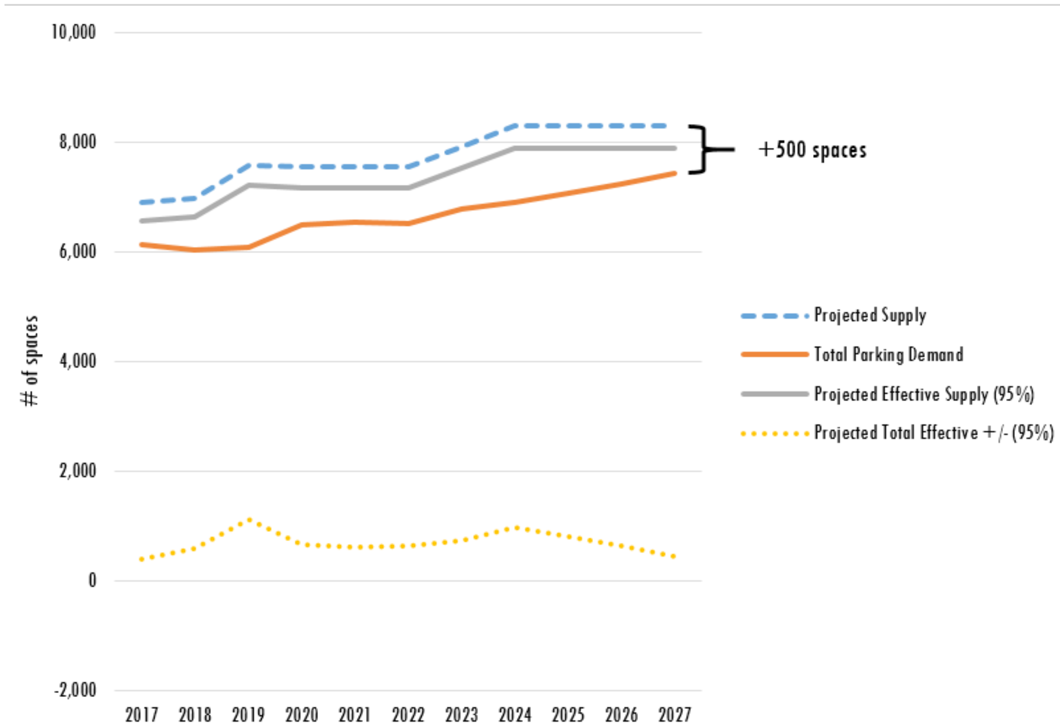
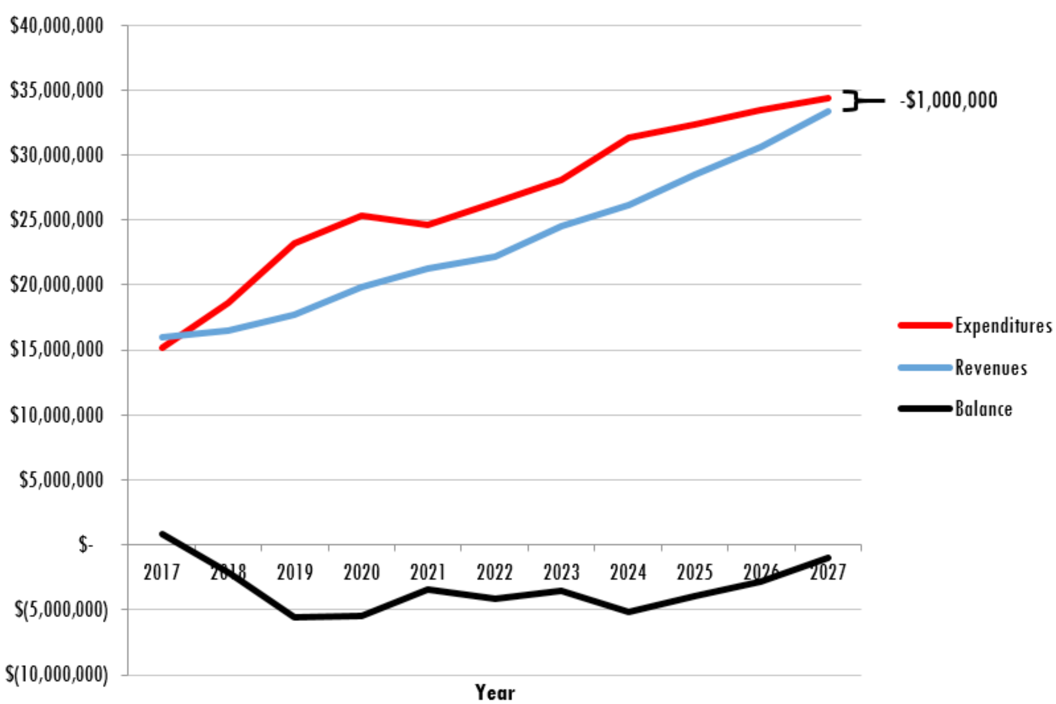


Figure 6. Moderate TDM + Moderate Parking (Recommended Scenario)





What is Next for OHSU?

The TDM Plan serves as OHSU's mobility roadmap for the next decade. It provides a general framework for action and helps staff define the specific implementation steps. The path forward for OHSU will not linear, but flexible and fluid. The TDM Plan serves as a living document that will continue to adapt to the ever changing needs of OHSU affiliates.

This TDM Plan provides an overview of the planning process, issues and opportunities, and packages of recommendations. The complementary Strategy Dashboard provides a detailed description of each strategy, including a scoring summary, cost estimates, and supporting information.

To help prioritize the work ahead, 11 "High Impact + High Priority" strategies have been identified. By the end of 2017, OHSU is already working to implement many of these priority efforts:

- **Adopt robust policies and consistent training to increase telecommuting (Strategy PO.4)**: OHSU has created a telecommuting Toolbox for departments and managers, conducted a telecommuting pilot, and has plans to further the telecommuting effort with the support of executive leadership.
- **Work with regional partners to expand transit service to OHSU (Strategy T.1):** Leveraging data from the Night Access Plan Project, OHSU worked with TriMet to get extended service hours on the list of proposed September 2018 service enhancements. This proposal includes both earlier and later on Routes 61, 64, 66, 68.
- **Implement targeted rideshare subsidy programs for employees and patients (Strategy SM.1)**: OHSU has established a partnership with Lyft for an employee ride-hailing program and for non-emergency medical patient trips. This program will be fully operational in early 2018.
- **Implement dynamic, OHSU-specific carpool service (Strategy SM.2)**: OHSU is finalizing a partnership with Scoop to offer dynamic ridesharing for OHSU employees. This program is expected to launch in 2018.
- **Implement an Employee Commute Platform (Strategy PC.4)**: OHSU has partnered with Luum to provide OHSU employees with a commute platform. The platform is planning to go live in spring of 2018.
- **Planning for a pilot of Daily Parking (Strategy P.1) and a Daily Financial Incentive (Strategy PC.2)**: OHSU staff are currently engaged in development of pilot programs for both daily pricing and a daily financial incentive. It is anticipated that a daily incentive would be made available during the Tram shutdown, while daily pricing would be tested with the opening of the Knight Cancer Research Building in 2018.

This quick and decisive set of actions demonstrate OHSU's commitment to reducing the drive alone rate, addressing transportation and access challenges, and implementing the TDM Plan.

OHSU is already working to implement many of these priority efforts. This quick and decisive set of actions demonstrate OHSU's commitment to implementing the TDM Plan.

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OHSU

Impact of Organizational Leadership on Physician Burnout and Satisfaction

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Abstract

Objective: To evaluate the impact of organizational leadership on the professional satisfaction and burnout of individual physicians working for a large health care organization.

Participants and Methods: We surveyed physicians and scientists working for a large health care organization in October 2013. Validated tools were used to assess burnout. Physicians also rated the leadership qualities of their immediate supervisor in 12 specific dimensions on a 5-point Likert scale. All supervisors were themselves physicians/scientists. A composite leadership score was calculated by summing scores for the 12 individual items (range, 12-60; higher scores indicate more effective leadership).

Results: Of the 3896 physicians surveyed, 2813 (72.2%) responded. Supervisor scores in each of the 12 leadership dimensions and composite leadership score strongly correlated with the burnout and satisfaction scores of individual physicians (all $P<.001$). On multivariate analysis adjusting for age, sex, duration of employment at Mayo Clinic, and specialty, each 1-point increase in composite leadership score was associated with a 3.3% decrease in the likelihood of burnout ($P<.001$) and a 9.0% increase in the likelihood of satisfaction ($P<.001$) of the physicians supervised. The mean composite leadership rating of each division/department chair (n=128) also correlated with the prevalence of burnout (correlation=−0.330; r^2=0.11; $P<.001$) and satisfaction (correlation=0.684; r^2=0.47; $P<.001$) at the division/department level.

Conclusion: The leadership qualities of physician supervisors appear to impact the well-being and satisfaction of individual physicians working in health care organizations. These findings have important implications for the selection and training of physician leaders and provide new insights into organizational factors that affect physician well-being.

 ■ Mayo Clin Proc. 2015;90(4):432-440

For editorial comment, See page 425

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Physicians are increasingly employed by large health care organizations. Studies suggest that approximately 75% of US physicians are now employed by hospitals, academic medical centers, health maintenance organizations, and large practice groups.[1] This represents a profound structural change from the solo practitioner and small group practice models in which most physicians previously functioned.[2-4] This evolution in practice structure has created new challenges for physicians, requiring them to sacrifice some autonomy/flexibility, achieve productivity requirements set by the organization, and be accountable to organizational leadership.[5-9]

Little is known about the impact of organizational leadership on the professional satisfaction and burnout of individual physicians. Physician burnout and professional satisfaction have strategic importance to health care organizations given their well-documented effect on quality of care, attrition/turnover, and patient satisfaction.[10-20] Small studies suggest that the relationship between individual physicians and their division/department chairperson is a critical component of professional satisfaction.[21]

To better understand the impact of leadership on the degree of burnout and professional satisfaction of physicians working in large organizations, we evaluated the relationship between the leadership qualities of firstline physician supervisors and the well-being and burnout of the physicians in their work unit.

PARTICIPANTS AND METHODS

Participants

Mayo Clinic is a nonprofit, physician-led health care organization with 3 large academic campuses (Rochester, Minnesota; Scottsdale, Arizona; and

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Jacksonville, Florida) and an integrated group of community-based hospitals and health care facilities serving more than 70 communities in Iowa, Georgia, Wisconsin, and Minnesota. As part of its efforts to foster a cohesive organization, Mayo Clinic surveys its physicians, scientists, allied health staff, and all other employees approximately every 24 months. This all-staff survey is administered by an independent consulting organization (Sirota Survey Intelligence) and covers a broad array of topics, including perception of quality and safety, professional burnout, satisfaction with the organization, and assessment of the institutional culture. Each individual also provides a detailed evaluation of the leadership qualities of their immediate supervisor.

The most recent survey was administered in October 2013. The present analysis focuses on the 3896 physicians and scientists in the sample who practiced at 1 of the 3 academic campuses or 1 of the 70 facilities in the Mayo Clinic Health System. The physician version of the survey included 98 questions exploring a variety of topics, as described previously. Participation was voluntary, and all the data were confidential. Although the external survey consulting firm tracks responses by employee identification number, identifying information is not available to any Mayo Clinic employee. Permission to use data collected from the survey for the research analysis reported herein was approved by the Mayo Clinic Institutional Review Board.

Demographic Characteristics

Available demographic information included age, sex, and specialty area. All the physicians were categorized into 1 of 8 specialty areas: primary care (general internal medicine, family medicine, and general pediatrics), internal medicine subspecialty, surgical discipline, radiology, anesthesiology, pathology/laboratory medicine, other medical specialty area (eg, dermatology, neurology, physical medicine/rehabilitation, psychiatry, and radiation oncology), or other.

Burnout and Satisfaction

Burnout is a syndrome characterized by emotional exhaustion (losing your enthusiasm for work) and depersonalization (viewing/treating people as if they were objects), resulting in decreased effectiveness at work.[22] Although the 22-item Maslach Burnout Inventory (MBI)[22] is the gold standard for assessing burnout, its length (22 items) limits feasibility for use in an organization-wide survey covering a wide range of topics, such as the one reported herein. Thus, to evaluate the emotional exhaustion and depersonalization domains of burnout in physicians, we used 2 single-item measures adapted from the full MBI. These 2 items have been used in previous studies involving more than 30,000 physicians[23-26] and have been shown to have a high correlation with burnout as measured by the full MBI in samples of more than 10,000 physicians.[18,27] The area under the receiver operating characteristic curve for emotional exhaustion for the single emotional exhaustion item relative to the full MBI is 0.94.[27] The area under the receiver operating characteristic curve for depersonalization using the single depersonalization item relative to the full MBI domain is 0.93.[27] Using the published approach to categorize responders, the positive predictive values of the single items for high emotional exhaustion and depersonalization relative to the full MBI are 88.2% and 89.6%, respectively.[27] Concurrent validity of this approach for assessing burnout has also been established.[18] These 2 items remain the property of Mind Garden Inc (which holds the copyright on the MBI) and were used with the appropriate license.

Overall satisfaction with the health care organization in which participating physicians practiced was evaluated by asking, "Considering everything, how would you rate your overall satisfaction with Mayo Clinic as a whole at the present time?" Physicians responded using a 5-point Likert scale (5=very satisfied, 4=satisfied, 3=neither satisfied nor dissatisfied, 2=dissatisfied, 1=very dissatisfied).

Evaluation of Frontline Leaders in Clinical Divisions and Departments

Physicians rated the leadership qualities of their immediate supervisor (division/department chairperson) in 12 specific dimensions (Table 1). All the leaders evaluated were themselves physicians/scientists. These 12-items were devised to assess specific characteristics of leadership that are measurable and actionable (able to be improved on). For 11 of the items, physicians rated their level of agreement on a

TABLE 1. Items Evaluating Physician Opinion of the Leadership Qualities of Their Immediate Physician Supervisor

To what extent do you agree or disagree with each of the following statements about (name of immediate supervisor)?
Holds career development conversations with me[a]
Inspires me to do my best[a]
Empowers me to do my job[a]
Is interested in my opinion[a]
Encourages employees to suggest ideas for improvement[a]
Treats me with respect and dignity[a]
Provides helpful feedback and coaching on my performance[a]
Recognizes me for a job well done[a]
Keeps me informed about changes taking place at Mayo Clinic[a]
Encourages me to develop my talents and skills[a]
I would recommend working for (name of immediate supervisor)[a]
Overall, how satisfied are you with (name of immediate supervisor)[b]

[a]Response options: 5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree; NA=do not know/not applicable.
[b]Response options: 5=very satisfied, 4=satisfied, 3=neither satisfied nor dissatisfied, 2=dissatisfied, 1=very dissatisfied.

5-point Likert scale (5=strongly agree, 4=agree, 3=neither agree nor disagree, 2=disagree, 1=strongly disagree; NA=do not know/not applicable). The final item asked individuals to rate their overall satisfaction with their immediate supervisor (5=very satisfied, 4=satisfied, 3=neither satisfied nor dissatisfied, 2=dissatisfied, 1=very dissatisfied). In addition to evaluating the 12 items individually, an overall leadership score was created by summing the scores for the 12 individual items into a composite leadership score (minimum score of 12, maximum score of 60; higher scores indicate more effective leadership).

Statistical Analyses

Continuous variables are summarized using mean $\pm$ SD, and categorical variables are summarized using frequency. Continuous and categorical variables were compared using *t* tests and χ^2 tests as appropriate. Two-tailed bivariate Pearson correlations were initially performed to assess relationships between leadership ratings and burnout/satisfaction. Multivariate logistic regression analysis was used to evaluate the relationship between composite leadership score and both burnout and satisfaction after adjusting for age, sex, duration of employment at Mayo Clinic, and specialty area.

In addition to evaluating the relationship between an individual physician's degree of burnout/satisfaction and supervisor ratings, we also evaluated the relationship between leadership and satisfaction/burnout at the division/department level. For this analysis, an average composite leadership score was determined for each of 128 frontline division/department chairpersons with at least 5 evaluations (median, 10; range, 5-110) based on the collective ratings of all responding physicians they supervised. The relationship between mean composite leadership score and the prevalence of burnout and satisfaction for the department as a whole was then assessed. Sensitivity analyses were conducted to investigate the impact of natural autocorrelation due to the nesting of clinicians within supervisors. For this analysis, logistic regression models were constructed with indicator variables for the supervisors to determine whether correlation within supervisors affected the results. All the analyses were performed using IBM SPSS Statistics version 20.

RESULTS

Of the 3896 physicians/scientists surveyed, 2813 (72.2%) responded (2684 physicians and 129 scientists), of whom 2540 (90.3%) were engaged in direct patient care activities. The demographic characteristics, professional characteristics, rates of burnout, and satisfaction of responders are shown in Table 2. The median age was 45 to 54 years, 71% were men, and half had been in practice for more than 10 years. No statistically significant differences were observed between responders and nonresponders with respect to age or sex. As a group, 38% of physicians reported high emotional exhaustion, 15% high depersonalization, and 40% at least 1 symptom of burnout. Collectively, 79% of physicians were either satisfied or very satisfied with the organization, 12% were neutral, and 9% were dissatisfied or very dissatisfied.

Physicians' evaluation of their firstline leader in the 12 dimensions assessed is shown in Supplemental Table 1 (available online at http://www.mayoclinicproceedings.org). All the leaders evaluated were themselves physicians/scientists (125 medical doctors/doctors of osteopathy, 2 medical physicists, and 1 psychologist). Each of the 12 leadership dimensions demonstrated a statistically significant association with burnout and satisfaction. Mean scores in each leadership dimension by burnout and satisfaction are shown in Supplemental Table 2 (available online at http://www.mayoclinicproceedings.org). The prevalence of burnout and satisfaction in those who agreed or strongly agreed that their physician leader exhibited each quality evaluated is shown in Table 3. Correlations between dimensions are shown in Supplemental Table 3 (available online at http://www.mayoclinicproceedings.org). The relationships between composite leadership score and emotional exhaustion, depersonalization, and satisfaction are shown in Figure 1.

We next performed multivariate analysis to evaluate the relationship between composite leadership score and burnout/satisfaction after adjusting for age, sex, duration of employment at Mayo Clinic, and specialty area. In this adjusted analysis, each 1-point increase in composite leadership score (range, 12-60) was associated with a 3.3% decrease in the likelihood of burnout ($P<.001$) and a 9.0% increase in the likelihood of satisfaction ($P<.001$).

Next, we evaluated the impact of frontline leadership on burnout and satisfaction at the division/department level. For this analysis, the mean composite leadership score was calculated for each of 128 frontline division/department chairpersons based on the collective ratings of the physicians they supervised. The relationship between each division/department chairperson's average composite leadership score (mean, 49.7; range, 25.4-59.1) and the rate of burnout/satisfaction in the group of physicians they supervised is shown in Figure 2. Mean composite leader rating demonstrated a significant relationship with the rate of burnout at the division/department level (correlation=−0.330; $P<.0001$). An even stronger relationship was found between mean leadership score and rates of satisfaction (correlation=0.684; $P<.0001$). The r^2 value for the relationship between mean composite leadership score and rates of burnout and satisfaction at the division/department level were 0.11 and 0.47, respectively. No changes in the results were observed on sensitivity analysis to identify the impact of within-supervisor autocorrelations.

Finally, we evaluated the relationship between each leader's personal degree of burnout and satisfaction and the prevalence

TABLE 2. Demographic Characteristics, Burnout, and Satisfaction of the 2813 Responders

Characteristic	Responders (No. [%])
Age	
<35 y	178 (7)
35-44 y	800 (30)
45-54 y	809 (31)
55-64 y	702 (26)
≥65 y	161 (6)
Missing	163
Sex	
Female	765 (29)
Male	1885 (71)
Missing	163
Duration of employment at Mayo Clinic	
<5 y	803 (30)
6-10 y	477 (18)
11-15 y	570 (22)
>15 y	800 (30)
Missing	163
Specialty	
Primary care[a]	383 (14)
Internal medicine subspecialty	696 (25)
Surgical specialty	400 (14)
Other medical specialty[b]	572 (20)
Anesthesiology	122 (4)
Radiology	101 (4)
Pathology and laboratory medicine	125 (4)
Other	414 (15)
Burnout[c]	
High emotional exhaustion[d]	1063 (38)
High depersonalization[e]	401 (15)
Burnout[f]	1095 (40)
Missing	57
Satisfaction	
Very satisfied	947 (34)
Satisfied	1260 (46)
Neither satisfied nor dissatisfied	344 (13)
Dissatisfied	187 (7)
Very dissatisfied	12 (0)
Missing	33

[a]Family medicine, general pediatrics, general internal medicine.

[b]Neurology, dermatology, physical medicine/rehabilitation, radiation oncology, subspecialty pediatrics, psychiatry, etc.

[c]As assessed using the single-item measures for emotional exhaustion and depersonalization adapted from the full Maslach Burnout Inventory. Area under the receiver operating characteristic curves for the emotional exhaustion and depersonalization single items relative to that of their respective full Maslach Burnout Inventory domain score in previous studies were 0.94 and 0.93, respectively, and the positive predictive values of the single-item thresholds for high levels of emotional exhaustion and depersonalization were 88.2% and 89.6%, respectively.[18,27]

[d]Individuals indicating symptoms of emotional exhaustion weekly or more often have median domain scores on the full Maslach Burnout Inventory of greater than 30 and have a greater than 75% probability of having a high emotional exhaustion domain score as defined by the Maslach Burnout Inventory (≥27).

[e]Individuals indicating symptoms of depersonalization weekly or more often have median domain scores on the full Maslach Burnout Inventory of greater than 13 and have a greater than 85% probability of having a high depersonalization domain score as defined by the Maslach Burnout Inventory (≥10).

[f]High score (at least weekly) on the emotional exhaustion or depersonalization scale.

TABLE 3. Leadership Qualities of Immediate Supervisors and the Prevalence of Burnout and Satisfaction in the Physicians They Supervise

	Burnout (% [95% CI])			Satisfaction (% [95% CI])		
Leadership quality	Prevalence of those rating leader favorably	Prevalence of those rating leader unfavorably	*P* value	Prevalence of those rating leader favorably	Prevalence of those rating leader unfavorably	*P* value
Holds career development conversations with me	36 (34.1-38.4)	51 (47.5-55.2)	<.001	82 (80.2-83.5)	51 (46.6-55.1)	<.001
Inspires me to do my best	36 (33.6-37.8)	52 (48.6-56.3)	<.001	83 (81.6-84.8)	46 (42.2-50.5)	<.001
Empowers me to do my job	35 (33-37.1)	56 (52.4-60.4)	<.001	86 (84.9-87.8)	46 (41.8-50.1)	<.001
Is interested in my opinion	36 (33.7-37.9)	54 (49.6-57.5)	<.001	85 (83.4-86.5)	48 (44.1-52.5)	<.001
Encourages employees to suggest ideas for improvement	37 (34.5-38.6)	52 (48-56.4)	<.001	86 (84.9-87.8)	53 (48.7-57.1)	<.001
Treats me with respect and dignity	38 (35.6-39.5)	56 (50.7-61.9)	<.001	94 (93.1-95.1)	69 (64.7-72.5)	<.001
Provides helpful feedback and coaching on my performance	35 (33.1-37.4)	50 (46.5-53.6)	<.001	78 (76.2-79.7)	41 (37-45.4)	<.001
Recognizes me for a job well done	36 (33.9-38)	53 (48.6-56.5)	<.001	84 (82.8-85.9)	48 (43.5-51.9)	<.001
Keeps me informed about changes taking place at Mayo Clinic	37 (34.5-38.6)	53 (49-57.7)	<.001	88 (86.7-89.4)	54 (49.8-58.1)	<.001
Encourages me to develop my talents and skills	35 (33.2-37.3)	54 (50.4-58)	<.001	84 (82.1-85.3)	45 (40.4-48.8)	<.001
I would recommend working for your immediate supervisor	36 (34.1-38.2)	53 (49.3-57.6)	<.001	87 (86-88.8)	49 (44.9-53.3)	<.001
Overall, how satisfied are you with your immediate supervisor	36 (34-38.1)	53 (49-57)	<.001	87 (85.3-88.2)	47 (42.5-50.7)	<.001

of burnout and satisfaction among the physicians they supervised. No relationship was observed between the leader's level of emotional exhaustion, depersonalization, or burnout and the prevalence of burnout in their work unit (Supplemental Figure 1, available online at http://www.mayoclinicproceedings.org). A small but significant correlation was observed between the leader's personal level of satisfaction with the organization and the rate of satisfaction in their work unit (correlation=0.278; r^2=0.07; *P*=.003) (Supplemental Figure 2, available online at http://www.mayoclinicproceedings.org).

DISCUSSION

These findings demonstrate the importance of frontline leadership on the well-being and professional satisfaction of physicians working for a large health care organization. Leadership ratings demonstrated a strong association with burnout and satisfaction at the level of individual physicians after adjusting for age, sex, duration of employment at Mayo Clinic, and specialty area. At the work unit level, 11% of the variation in burnout and 47% of the variation in satisfaction with the organization was explained by the leadership rating of the division/department chairperson. This is remarkable when one considers the extent of other factors that influence satisfaction (eg, salary, workload expectations, speciality, culture, strategic direction of the organization, personality conflicts, and opportunities for professional development). In contrast, the leader's own level of burnout was not related to the prevalence of burnout in the division/department, and the leader's personal satisfaction had a much smaller correlation with satisfaction in their division/department than their leadership scores (r^2 0.07 vs 0.47).

These observations add to a growing understanding of organizational factors that impact physician well-being,[13,28-32] including the efficiency of the practice environment, the level of flexibility/autonomy provided to physicians, and workload expectations.[13,28-32] Extensive research now indicates that the well-being and professional satisfaction of physicians has a profound effect on the quality of care that physicians provide and affects patient adherence with treatment recommendations and satisfaction with medical care.[10-17] These effects on quality of care, combined with the impact of satisfaction and burnout on turnover and associated costs,[19,20,33,34] underscore the critical importance of physician satisfaction and burnout to the long-term success of health care organizations. This fact has led to greater recognition that reducing burnout and cultivating resilience/career satisfaction are the shared responsibility of physicians and the organizations in which they function.[28,29,31,32]

Although the importance of good leadership to the success of health care organizations is increasingly recognized, its direct effect on the professional satisfaction and burnout of individual physicians is poorly understood. Selecting

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and developing individuals with the requisite qualities to effectively motivate, inspire, develop, and manage physicians presents unique challenges.[35] First, physicians are highly trained, have a tremendous amount of technical knowledge, often function independently, and develop an individual approach to providing patient care. The process of physician training also is designed to inculcate healthy degrees of skepticism, attention to detail, and a desire for evidence to undergird decision making, qualities that can create challenges to building consensus and implementing new ideas.[9,35,36] The deep understanding of medical practice requisite to leading and guiding the professional development of physicians often necessitates that the leaders themselves be physicians.[9,37] Physician leaders are, however, typically selected based on their clinical acumen, scientific expertise, or reputation rather than on the qualities necessary to be an effective leader.[35,36,38] These factors often combine to create a circumstance in which an individual who has not been well prepared to lead is thrust into a very challenging leadership situation.

Clearly, new strategies are needed to identify potential physician leaders and better prepare them for their future leadership role.[39,40] Vanguard institutions have recognized this problem and have pioneered programs to identify, develop, and equip physician leaders.[9,35,37,38,41-43] Currently, such programs are not widespread. Several thought leaders have delineated the key competencies for physician leaders[9,32,35,38,44,45] and have called for the introduction of leadership training in medical school and residency.[46,47]

The dimensions of effective physician leadership as evaluated by the composite leader score in our study could be summarized as follows: inform, engage, inspire, develop, and recognize. Many of the leadership qualities we evaluated in these dimensions were specific and teachable behaviors, such as keeping people informed, encouraging reports to suggest ideas for improvement, having career development conversations, providing feedback and coaching, and recognizing a job well done. The ability of physician leaders to inspire those who they are leading also cannot be underestimated in today's challenging and rapidly changing practice environment. Although inspiration can take many forms, we believe that engaging

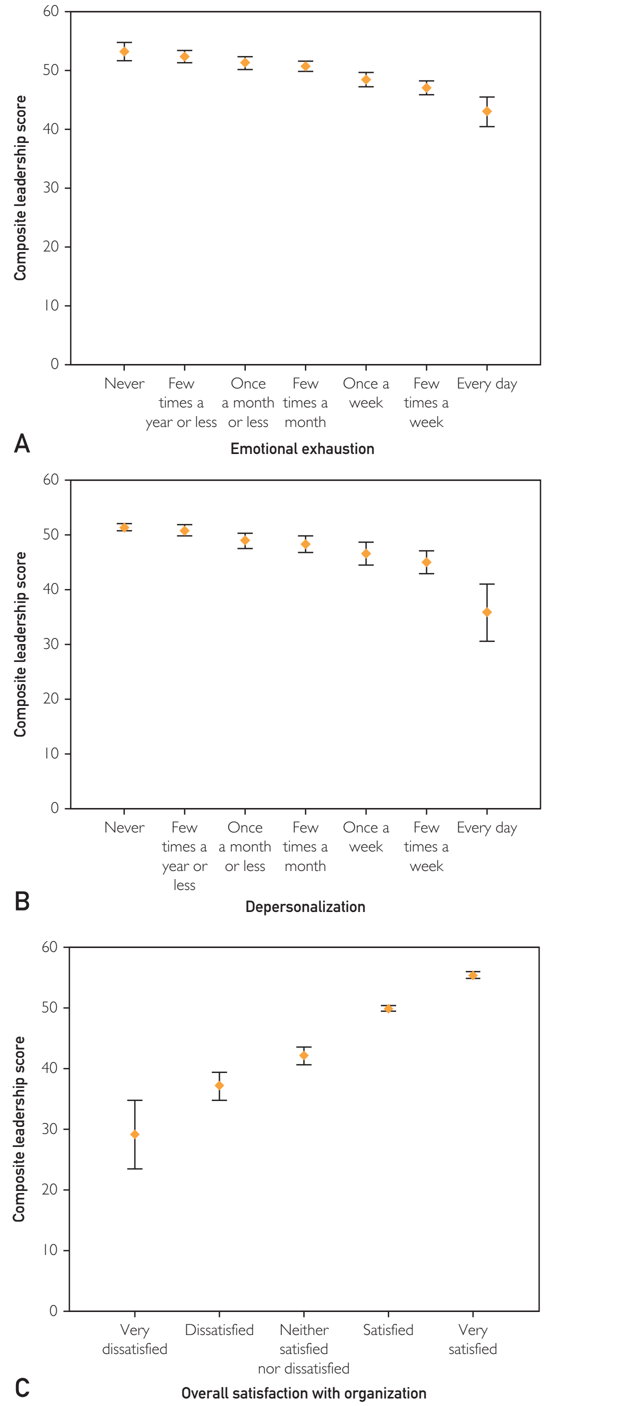

FIGURE 1. Relationships between mean composite leadership score of the immediate supervisor and physician emotional exhaustion (correlation coefficient=0.217; *P*<.001 (A), physician depersonalization (correlation coefficient=0.213; *P*<.001) (B), and physician satisfaction (correlation coefficient=0.504; *P*<.001) (C). Error bars indicate 95% CIs.

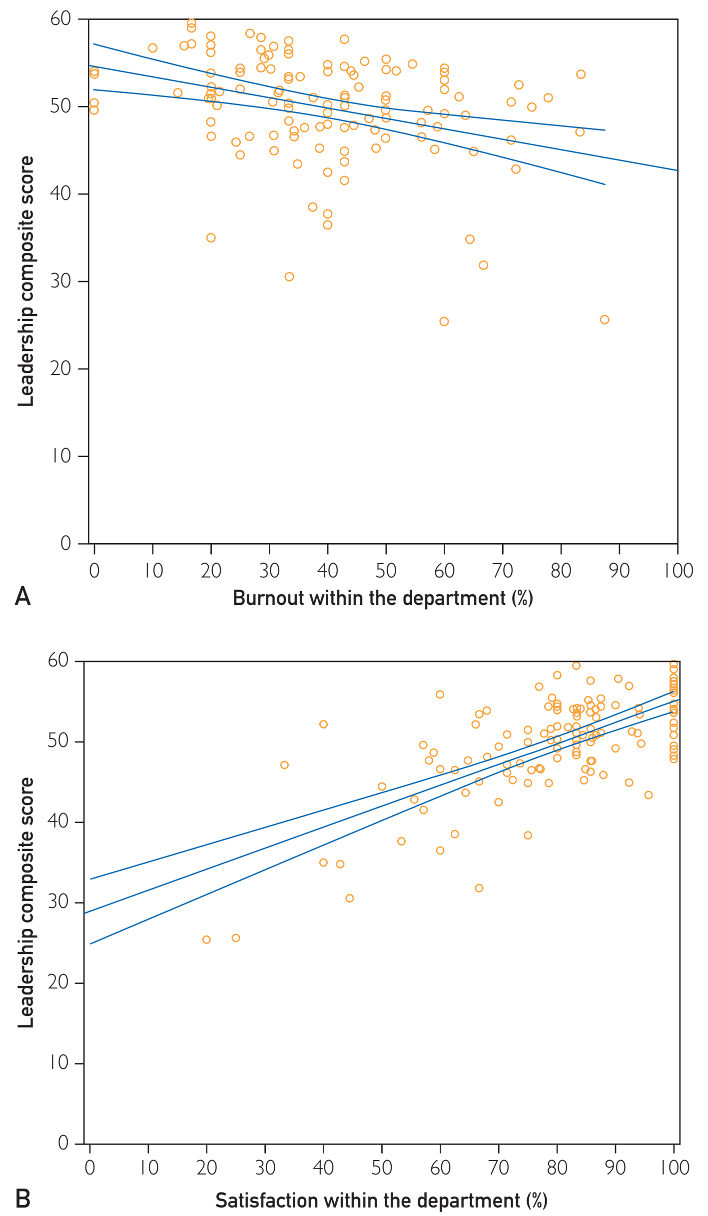

FIGURE 2. A, Mean composite leadership score and rate of burnout at the department level (correlation coefficient=−0.330; *P*<.001). B, Mean leadership composite score and rate of satisfaction at the department level (correlation coefficient=0.684; *P*<.001). Each dot represents a given division/department (n=128).

and empowering physicians to help solve the problems facing the organization and the work unit is a critical component. Physicians are inherently critical thinkers and problems solvers who want to be involved in assessing and improving their practice environment. Indeed, 3 of the 12 items in the composite score related to empowering physicians to do their work, being interested in their opinion, and encouraging suggestions for improvement. Embodying these qualities requires a leader to be secure in his or her position, unafraid to tackle difficult problems, willing to explore diverse opinions regarding new approaches, and encouraging of others to provide input in shaping solutions.

This study has several important limitations. First, it represents the experience of a single health care organization. It should be noted, however, that the findings were consistent across 3 separate academic campuses that function largely independently and across a large community-based health system. Second, the study is cross-sectional and cannot determine causality. Future longitudinal evaluations, particularly before and after leadership changes occur, will provide important additional insights. Third, it is possible that dissatisfied or burned out individuals are simply more likely to evaluate their leaders less favorably. The relationship between mean leader ratings and the prevalence of burnout and satisfaction at the work unit level, however, argues against this being the primary etiology of these findings. The fact that leadership scores at the work unit level had a much larger effect on satisfaction (r^2=0.47) than on burnout (r^2=0.11) also suggests specificity to the impact of leadership on different dimensions of physician well-being and argues against this notion. Fourth, although the 12-tem leadership assessment used is based on well-recognized leadership traits and uses a standard Likert scale, it is not a previously validated assessment.

This study also has important strengths. The study participants worked in diverse practice settings, including academic and community-based models. The sample included physicians from all specialties who were distributed in multiple regions of the country. The prevalence of burnout among participating physicians was similar to that in a recent national study.[23] The fact that all the participants were part of the same larger organization with a single culture and unified organizational strategy also has advantages as it allowed us to isolate the impact of frontline leadership on physician well-being, to explore the impact of leadership at the individual and division/department levels, and to evaluate the relationship between leaders' own

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well-being and the well-being of those they supervise. In this regard, multicenter studies would present other limitations where differences in environment, organizational culture, and macro-level strategy could confound reliable isolation of the impact of frontline leadership on physician satisfaction. Although the cultural aspects of the institution studied may influence some of the results, the impact of frontline leaders on the well-being of the physicians they supervise is unlikely to be unique to Mayo Clinic. Additional strengths of this study include the high participation rate[48] and the use of validated metrics to assess burnout.[18,27]

CONCLUSION

The leadership qualities of physician supervisors have a direct effect on the personal well-being of the physicians they lead. These findings have important implications for the selection and training of physician leaders. The results also provide new insights into organizational factors that impact physician well-being.

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SUPPLEMENTAL ONLINE MATERIAL

Supplemental material can be found online at http://www.mayoclinicproceedings.org.

Abbreviations and Acronyms: **MBI** = Maslach Burnout Inventory; **NA** = do not know/not applicable

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Glossary of Terms

A3 – Single page strategy
AAEO – Affirmative Action and Equal Opportunity
ACA - Affordable Care Act. The Patient Protection and Affordable Care Act, often shortened to the Affordable Care Act (ACA) or nicknamed Obamacare, is a United States federal statute enacted by the 111th United States Congress and signed into law by President Barack Obama on March 23, 2010
AFSCME - American Federation of State, County and Municipal Employees. A union that represents OHSU classified employees.
AH - Adventist Health.
AHC - Academic Health Center. A partnership between healthcare providers and universities focusing on research, clinical services, education and training. They are intended to ensure that medical research breakthroughs lead to direct clinical benefits for patients.
AMD - Age-Related Muscular Degeneration is a common eye condition and a leading cause of vision loss among people age 50 and older.
APP – advanced practice providers
APR - Academic Program Review: The process by which all academic programs are evaluated for quality and effectiveness by a faculty committee at least once every five years.
ARRA - American Recovery and Reinvestment Act of 2009.
A/R - Accounts Receivable. Money owed to a company by its debtors
ASF - Assignable Square Feet. The sum of all areas on all floors of a building assigned to, or available for assignment to, an occupant or specific use.
AVS – After visit summary
A&AS – Audit and Advisory Services

BRB - Biomedical Research Building. A building at OHSU.

CAGR - Compound Annual Growth Rate measures the annual growth rate of an investment for a time period greater than a year.
CAO - Chief Administrative Officer.
Capex - Capital expense
CEI - Casey Eye Institute. An institute with OHSU.
CFO - Chief Financial Officer.
CHH - Center for Health & Healing Building. A building at OHSU.
CHH-2 - Center for Health & Healing Building 2. A building at OHSU.
CHIO – Chief Health Information Officer
CLSB - Collaborative Life Sciences Building. A building at OHSU.
CMH - Columbia Memorial Hospital. A hospital in Astoria, Oregon.
CMI - Case Mix Index. Relative value assigned to a diagnosis-related group of patients in a medical care environment.
CMS - Centers for Medicare & Medicaid Services. A federal agency within the United States Department of Health and Human Services (HHS) that administers the Medicare program and works in partnership with state governments to administer Medicaid, the Children's Health Insurance Program (CHIP), and health insurance portability standards. In addition to these programs, CMS has other responsibilities, including the administrative simplification standards from the Health Insurance Portability and Accountability Act of 1996 (HIPAA), quality standards in long-term care facilities (more commonly referred to as nursing homes) through its survey and certification process, clinical laboratory quality standards under the Clinical Laboratory Improvement Amendments, and oversight of HealthCare.gov.
CPI - Consumer Price Index measures the average prices of goods & services in the United States.
CY - Current Year.

Downstream referral activity - specialty referrals that generate a higher margin and result from the primary care activity.
Days Cash on Hand - The number of days that OHSU can continue to pay its operating expenses with the unrestricted operating cash and investments.
DCH - Doernbecher Children's Hospital. A building at OHSU.
DMD - Doctor of Dental Medicine.
DNP - Doctor of Nursing.

E&M – Evaluation and management
EBIT - Earnings before Interest and Taxes. A financial measure measuring a firms profit that includes all expenses except interest and income tax.
EBITDA - Earnings before Interest, Taxes, Depreciation and Amortization.
ED - Emergency Department. A department in OHSU specializing in the acute care of patients who present without prior appointment.
EHR - Electronic Health Record. A digital version of a patient's medical history.
EHRS – Environmental Health and Safety
EMR – Electronic medical record
ENT - Ear, Nose, and Throat. A surgical subspecialty known as Otorhinolaryngology.
EPIC - Epic Systems. An electronic medical records system.
ER - Emergency Room.
ERG – Electroretinography is an eye test used to detect abnormal function of the retina.

ERM - Enterprise Risk Management. Enterprise risk management in business includes the methods and processes used by organizations to manage risks and seize opportunities related to the achievement of their objectives.

FTE - Full-time equivalent is the hours worked by an employee on a full-time basis.
FY - Fiscal Year. OHSU's fiscal year is July1 – June30.

GAAP - Generally Accepted Accounting Principles. Is a collection of commonly-followed accounting rules and standards for financial reporting.
GASB - Governmental Accounting Standards Board. Is the source of generally accepted accounting principles used by state and local governments in the United States.
GDP - Gross Domestic Product is the total value of goods and services produced within a country's borders for a specified time period.
GME - Graduate Medical Education. Any type of formal medical education, usually hospital-sponsored or hospital-based training, pursued after receipt of the M.D. or D.O. degree in the United States This education includes internship, residency, subspecialty and fellowship programs, and leads to state licensure.
GPO –group purchasing organization

H1 – first half of fiscal year
H2 – second half of fiscal year
HR - Human Resources.
HRBP – Human resources business partner
HSE – Harvard School of Education
HSPH – Harvard School of Public Health

IA - Internal Arrangements. The funds flow between different units or schools within OHSU.
ICU - Intensive Care Unit. A designated area of a hospital facility that is dedicated to the care of patients who are seriously ill
IGT - Intergovernmental Transfers. Are a transfer of funds from another government entity (e.g., county, city or another state agency) to the state Medicaid agency
IHI – Institute for Health Care Improvement
IP – In Patient
IPS – Information Privacy and Security

KCC - Knight Cancer Center. A building at OHSU.
KPV - Kohler Pavilion. A building at OHSU.

L&D - Labor and Delivery.
LOI - Letter of Intent. Generally used before a definitive agreement to start a period of due diligence before an enduring contract is created.

MA – Medicare Advantage
M and A - Merger and acquisition.
MBU - Mother-Baby Unit. A unit in a hospital for postpartum women and their newborn.
MCMC - Mid-Columbia Medical Center. A medical center in The Dalles, OR.
MD - Doctor of Medicine.
MOU—Memorandum of Understanding
MPH - Master of Public Health.

NFP - Not For Profit.
NICU - Neonatal Intensive Care Unit specializes in the care of ill or premature newborn infants.
NIH - National Institutes of Health. A part of the U.S. Department of Health and Human Services, NIH is the largest biomedical research agency in the world.
NOL - Net Operating Loss. A loss taken in a period where a company's allowable tax deductions are greater than its taxable income. When more expenses than revenues are incurred during the period, the net operating loss for the company can generally be used to recover past tax payments.
NPS: Net Promotor Score.
NWCCU - Northwest Commission on Colleges and Universities: OHSU's regional accrediting body which is recognized by the U.S. Department of Education as the authority on the educational quality of institutions in the Northwest region and which qualifies OHSU and our students with access to federal Title IV student financial aid funds.

OCA - Overhead Cost Allocation. Internal OHSU mechanism for allocating overhead expenses out to departments.
OCNE - Oregon Consortium for Nursing Education. A partnership of Oregon nursing programs.
OCT - Optical Coherence Tomography is a non-invasive imaging test.
OCTRI - Oregon Clinical & Translational Research Institute. An institute within OHSU.
OHA - Oregon Health Authority. A government agency in the state of Oregon.
OHSU—Oregon Health & Science University
OHSUF - Oregon Health & Science University Foundation.
ONA - Oregon Nurses Association. Professional association for nurses in Oregon.
ONPRC - Oregon National Primate Research Center. One of seven federally funded National Primate Research Centers in the United States and a part of OHSU.

OP – Outpatient. If your doctor sends you to the hospital for x-rays or other diagnostic tests, or if you have same-day surgery or visit the emergency department, you are considered an outpatient, even if you spend the night in the course of getting those services. You only become an inpatient if your doctor writes orders to have you formally admitted.
OPP – OHSU Practice Plan
OPAM - Office of Proposal and Award Management is an OHSU department that supports the research community by providing pre-award and post-award services of sponsored projects and awards.
OPE - Other Payroll Expense. Employment-related expenses for benefits which the university incurs in addition to an employee's actual salary.
Opex: Operating expense
OR- Oregon
OR - Operating Room. A room in a hospital specially equipped for surgical operations.
OSU - Oregon State University.

PAMC - Portland Adventist Medical Center.
PDT - Photodynamic Therapy is a treatment that uses special drugs and light to kill cancer cells.
PERI-OP – Perioperative. The time period describing the duration of a patient's surgical procedure; this commonly includes ward admission, anesthesia, surgery, and recovery
PERS - Public Employees Retirement System. The State of Oregon's defined benefit plan.
PET/MRI - Positron Emission Tomography and Magnetic Resonance Imaging. A hybrid imaging technology that incorporates MRI soft tissue morphological imaging and positron emission tomography PET functional imaging.
PPI – physician preference items
PPO - Preferred Provider Organization. A type of health plan that contracts with medical providers, such as hospitals and doctors, to create a network of participating providers. You pay less if you use providers that belong to the plan's network.
PSU - Portland State University.
PTO - Personal Time Off. For example sick and vacation time.
PV - Present Value. The current value of a future sum of money or stream of cash flows given a specified rate of return.
PY - Previous Year.

Quaternary - Extension of Tertiary care involving even more highly specialized medical procedures and treatments.

R&E - Research and Education.
RLSB: Robertson Life Sciences Building
RN - Registered Nurse.
ROI – return on investment
RPA - Robotic Process Automation. Refers to software that can be easily programmed to do basic tasks across applications just as human workers do
RPV – revenue per visit

SG&A - Selling, General and Administrative expenses. A major non-production cost presented in an income statement
SLM – Senior Leadership Meeting
SLO - Student Learning Outcomes Assessment: The process of establishing learning goals, providing learning opportunities, measuring student learning and using the results to inform curricular change. The assessment process examines whether students achieved the learning goals established for them.
SoM - School of Medicine. A school within OHSU.
SPH - School of Public Health. A school within OHSU.
SPD - Sterile Processing Department. An integrated place in hospitals and other health care facilities that performs sterilization and other actions on medical devices, equipment and consumables.

TBD – to be decided
Tertiary - Highly specialized medical care over extended period of time involving advanced and complex procedures and treatments.
TTBD - Technology Transfer & Business Development supports advancement of OHSU research, innovation, commercialization and entrepreneurship for the benefit of society.

Unfunded Actuarial Liability - Difference between actuarial values of assets and actuarial accrued liabilities of a pension plan. Represents amount owed to an employee in future years that exceed current assets and projected growth.
UO—University of Oregon
UPP - University Pension Plan. OHSU's defined benefit plan.

VGTI - Vaccine and Gene Therapy Institute. An institute within OHSU.

WACC - Weighted Average Cost of Capital is the calculation of a firm's cost of capital in which each capital category is proportionately weighted.
wRVU - Work Relative Value Unit. A measure of value used in the United States Medicare reimbursement formula for physician services

YoY - Year over year.
YTD - Year to date.