West Linn-Wilsonville School District Superintendent's High School Study Group Final Report

West Linn-Wilsonville School District

2017-18

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Summary and Purpose

With the West Linn-Wilsonville School District fast-approaching 10,000 students K-12, the District continues to think about growth and future school needs. With 1,870 students at West Linn High School, nearly 1,200 at Wilsonville High and 90 at Arts and Technology High School, the possibility for future high school learning spaces may be on the horizon. As evolving high school programming precedes and informs instructional practices and learning spaces, it is time to engage the community in high school program and design considerations.

A Superintendent's Study Group was formed for the purpose of exploring the need and range of possibilities for current and future high school program design and learning spaces. This report focuses on instruction and programming in high schools. While the Study Group toured high school facilities throughout the Northwest, the emphasis of this study was less about the type of buildings that might facilitate future high school learning, and more about the type of learning and high school design options that would meet the needs of our students.

This report summarizes the key understandings generated from our study and informs the Superintendent who, in turn, will share the findings with the School Board and Long Range Planning Committee.

Components of the Study

Our study included four components:

1) Research that describes optimal current and future learning experiences for high school students as they prepare for college, career, and beyond.
2) Visit alternative and innovative high school program designs in and outside Oregon.
3) Collect data from our district's high school students, alumni students, and parents regarding current, past, and future high school learning experiences, and what is believed to be essential to a high school program design.
4) Examine current and future demographic data and enrollment trends that inform learning space needs.

Study Group Guiding Questions

We strongly believe in the quality and effectiveness of our high school programs, but how can we improve the opportunities we provide for our high school students?

How do we provide a high school education that simultaneously prepares students for both college and career, regardless of which path they choose following their K-12 careers?

Does high school in the future look different than our current model, and how can we position ourselves to stay on the cutting edge, ensuring we're providing the best high school experience possible for our students?

Study Group Participants (20)

Saskia Dresler, Principal of Arts and Technology High School
Will Lee, Teacher from Arts and Technology High School
Emily Plotnick, Parent from Arts and Technology High School
Dan Schumaker, Principal of Wilsonville High School
Christopher Shotola-Hardt, Teacher from Wilsonville High School
Christy Thompson, Parent from Wilsonville High School
Kevin Mills, Principal from West Linn High School
Stacy Erickson, Teacher from West Linn High School
Nicole Hsiao, Parent from West Linn High School
Caitlin Klenz, Assistant Principal from Athey Creek Middle School
Grady Nelson, Long Range Planning Committee Member
Tim Woodley, Director of Operations
Curtis Nelson, Chief Information Officer
Mayra Gomez, Director of College and Career Readiness
Aaron Downs, Assistant Superintendent of Secondary Schools
Barb Soisson, Assistant Superintendent of Teaching and Learning
Jennifer Spencer-Iiams, Assistant Superintendent of Student Services
David Pryor, Assistant Superintendent of Primary Schools
Andrew Kilstrom, Director of Communications
Kathy Ludwig, Superintendent, Co-facilitator of High School Study
Karina Ruiz, BRIC Principal Architect, Co-facilitator of High School Study

High School Process and Timeline

October 26, 2017 — Purpose and Setting the Stage
November 27, 2017 — Generation Z; Special Guest Karina Ruiz, Architect
December 5, 2017 — Study Group Members tour Center for Advanced Learning
December 8, 2017 — North Creek High School Skype Virtual Tour
December 11, 2017 — Study Group Members tour Beaverton Health and Science School
December 11, 2017 — Study Group Members tour Beaverton High School
December 13, 2017 — Study Group tours Henrietta Lacks Health and Bioscience High School
January 23, 2018 — Research and Study; Debriefing High School Tours
February 28, 2018 — Looking at WLWV student trends; current high school structures
March 19, 2018 — Reflecting on Student Voice/Survey Data
April 28, 2018 — High School Study Teacher Summit with Diana Laufenberg
May 4, 2018 — Study Group meets with Arts and Technology Student Focus Group
May 9, 2018 — Study Group meets with West Linn High School Student Focus Group
May 17, 2018 — Study Group meets with Wilsonville High School Student Focus Group
May 28, 2018 — Study Group Hosts Parent Forum
May 29, 2018 — Final High School Study Debrief; Looking Ahead to the Future
TBD — The High School Study Group will host a business and industry forum in Fall, 2018

Historical Perspective: Current High School Programs

The Study Group started their year-long study by first reflecting on West Linn-Wilsonville's existing high schools and the programs that students currently participate in at West Linn, Wilsonville, and Arts and Technology high schools.

West Linn High School: Originally built in 1920, with portions of the first building remaining until the late 1990s, West Linn High School was the district's first high school. Major renovations included a new entryway and commons area in 1992, a north classroom wing and administration renovation in 2000, a new gymnasium, cafeteria/kitchen, weight room, dance studio, and performing arts center in 2005, and a revitalized '700' building in 2016. The West Linn High School Master Plan was created in the late 90s and early 2000s, describing the building's capacity at approximately 1,850. Enrollment was 1,547 in 2013, growing by more than 300 students in the past four years. West Linn High School has 68 teaching stations, more than 20 Advanced Placement courses, and more than 100 different course offerings. WLHS fields teams for 21 different sports, girls and boys, and has close to 40 different clubs. Programs include those such as band, choir, mock trial, drama, culinary arts, journalism, computer science, International Science and Engineering Fair, and Youth Transition Program. West Linn High School posted a graduation rate of 97.2 percent in 2016-17, which was second in the State of Oregon.

Wilsonville High School: While the District purchased the site that holds Boeckman Creek and Wilsonville High School in the 1960s, Wilsonville High School wasn't constructed until 1995. The original school was built for 750 students, with a planned buildout to 1,500 that took place in the mid-2000s. Like West Linn High School, Wilsonville's school site is maxed out with little room for added classroom space, but still has a Performing Arts Center like WLHS's planned for the future. Enrollment sits at 1,203 as of Sept. 30, 2017, leaving room for some 200-plus students. Wilsonville High School has 58 teaching stations with an educational capacity of roughly 1,450. Similar to WLHS, Wilsonville High has more than 100 different course offerings, includes proximity to SMART Transit for easy transportation, and offers more than 20 AP courses in areas of English, math, science, social studies, world language, and the arts. Wilsonville High has more than 20 clubs, like the MeCha Club, as well as band, choir, drama, robotics, ISEF, leadership, yearbook, and broadcast journalism. Wilsonville High School posted a graduation rate of 96.3 percent in 2016-17, which was third in the State of Oregon.

Arts and Technology High School: Arts and Technology High School, or Art Tech High School, originated as a charter school in 2004, when the District leased a building located on Wilsonville Road. Following a District Study on Alternative Education in 2008, Art Tech transitioned into a District high school in its fourth year, eventually moving to its current location across the street from Wilsonville City Hall. West Linn-Wilsonville currently leases the building and property. The school has 10 certified staff, 2 counselors, 1 resource teacher, and 1 TOSA. Art Tech's class sizes hover around 10 students with an emphasis on individualized learning. Art Tech houses the District's Adult Transition Program and Youth Transition Program, and focuses on Career Technical Education (CTE) and college and career readiness. Enrollment draws nearly equally

from West Linn and Wilsonville, with unique course offerings such as printmaking, rock band, and college and career readiness. Art Tech also utilizes community partnerships and skill-building opportunities with programs at World of Speed (automotive) and CREST Headquarters (agriculture/farming).

What does today's high school student look like as a learner?

BRIC Principal Architect, Karina Ruiz, served as co-facilitator of the High School Study. Early in the Study, she provided the Study Group with an introduction to Generation Z and how students are evolving as learners. A nationally recognized architect who specializes in school facilities with an emphasis on program integration, Ruiz identified what the next generation of learners looks like, as well as the challenges and obstacles schools will need to overcome in coming years.

Recent research indicates that education today is preparing students for jobs that don't yet exist, using technologies that haven't yet been invented, in order to solve problems that we don't yet know are problems.

The High School Study Group learned that, according to a 2015 study, 70 percent of teens are currently working entrepreneurial jobs, 60 percent expect to have multiple jobs by the time they are 30, and 75 percent of teens believe they can get a good education in ways other than going to college. That being said, 66 percent of teens still plan to attend college. Of those surveyed, 42 percent of students say they intend to work for themselves and 58 percent say that their parents are their best friend. Of note, 48 percent of students surveyed felt hopeful about their future, 34 percent felt stuck, and 18 percent felt discouraged about the future.

The Study Group learned that students become less and less engaged in their schooling as they progress through the public K-12 system. A 2015 Gallup Poll Survey found that 74 percent of fifth-graders felt engaged in school compared to just 34 percent of seniors. Study Group members also learned about the implications of teaching and learning, and what recent research shows is most important. Problem-solving, transfer and application of information, interpersonal relationships, managing change and learning agility, and soft skills that global economy expects of our workforce are vital to our current learners. Personalized learning is similarly important, allowing students to learn at their own pace, learning content that is relevant to them, with rigor determined by evidence of students' ability.

The Study Group also reviewed the International Center for Leadership in Education's Rigor Relevance Framework, which shows that application and adaptation of knowledge and information is how students are now taught, which is a shift from previous teaching methods that instead led to the acquisition and assimilation of knowledge.

The High School Study Group analyzed how these shifts in teaching and learning are being implemented in schools throughout the world through virtual tours led by Ruiz. The High School Study Group explored the Missouri Innovation Campus, Colorado Academy Upper School, Park Hill LEAD Innovation Studio, Civic High School, Pathways Innovation Center, and Orestad

Gymnasium (high school) in Copenhagen, Denmark. Members noted the varying facilities and how they lent themselves to the innovative learning and various program designs.

High School Study Group Tour Summaries:

Members of the High School Study Group toured a diverse set of standout high schools across the Northwest, to learn about various high school models, gaining inspiration and ideas for what West Linn-Wilsonville could consider into the future.

Center for Advance Learning

Enrollment: Roughly 450

School Overview:

The Center for Advanced Learning (CAL) is a two-year charter school for juniors and seniors. The School welcomes students from Reynolds School District, Gresham-Barlow School District, and Centennial School District, with Gresham-Barlow acting as the home school district. In partnership with Mt. Hood Community College, students choose one of five study areas to engage in during their junior and senior year. The five areas are: Computer Information Systems; Dental Health Science; Digital Media and Design; Mechanical Engineering and Manufacturing; and Medical Health Science.

The school has 20 teachers who come from local high schools, Mt Hood Community College, and regional businesses. Students spend half their day at their area high school and the other half at CAL. Students earn nearly one college year of transferable credits during their two years at CAL while simultaneously completing all requirements for their high school diploma.

Other CAL facts/information:

- The school's four core values are: Challenge, Creativity, Innovation, and Relevance.

- Students complete a capstone project in their chosen area at the conclusion of their two-year CAL career.
- According to the CAL website, "CAL programs are designed to help students become professional, ethically-driven collaborators and problem-solvers in the 21st Century workforce. … Each student's education is enriched by college-level coursework, hands-on learning, diverse program offerings, and internships."

To be accepted into the charter school, students must be able to:

Actively explore new ideas, pose questions about their meaning, significance, and implications.

- Recognize patterns and deviations from previously learned patterns.
- Appreciate abstraction and generalization revealed within a subject area.
- Be willing to be challenged as part of the learning process.
- Contribute to and benefit from group problem-solving activities and takes responsibility for own learning.
- Persevere when faced with time-consuming or complex tasks.
- Produce valid oral, written, and/or symbolic arguments to support a position or conclusion.
- Be convinced that effort is an important component of success in any subject area.
- Have completed two years of high school Math and English. For Health Sciences Program: two years of Science (Biology & Chemistry preferred).

High School Study takeaways form CAL tour:

High School study members who toured the Center for Advanced Learning noted the innovation of the school. Learning spaces very much resembled maker spaces that some WLWV schools enjoy, with state-of-the-art equipment. Each pathway also closely resembled a professional workplace, giving students a sense of what it would be like to enter the workforce in each field. The two medical pathways resembled real medical facilities, providing students with hands-on opportunities in addition to classroom learning. The digital media and design lab had top-of-the line computers and design programs, with projects that remind one of assignments students would receive if working for a journalism publication, design company, or digital media platform.

Students were already working on capstone projects, which are designed to provide real-world experience for the pathway of choice. That includes student-created design magazines, student-coded programs, manufactured materials aimed to solve real-world problems, and simulated medical procedures complete with research papers among other projects.

Study Group members also noted the level of engagement they saw from students in the classroom. Members toured all five pathways, getting brief opportunities to speak with teachers and students. CAL noted that the five pathways (dental health science, digital media and design, mechanical engineering and manufacturing, medical health science, and computer information systems) were selected based largely on available resources as well as student interest. Each pathway requires expert instructors and resources, which were somewhat limiting factors but

also helped narrow down focus and planning. Students are encouraged to stick with their chosen pathway through graduation, so it was important that students knew the scope and differences in each pathway before selection.

Study Group members also noted that the program mirrored a college. Students who are at CAL elected to be there, and they are given sizeable amounts of independence and responsibility in managing their time there.

Of particular note was the concept of a charter school that combines three distinct school districts. Because students spend half of their school day at their district-specific high school, CAL has to be centrally located. Districts are responsible for providing their own busing, with many students choosing to drive themselves. Despite coming from three different districts, CAL administration reported some sense of school unity and belonging. Having a strong sense of purpose and relevance has kept students engaged and excited to learn, according to administration.

Beaverton Health and Science High School:

Enrollment: Roughly 700

School overview:

HS2 opened in 2007 and has just over 700 students in grades 6-12. HS2 is a Science, Technology, Engineering, and Mathematics (STEM) school that offers college credit courses at the high school level in engineering, math, Spanish, and writing. Students apply for HS2 if they wish to attend and are accepted based on a lottery system.

The school's mission is to "Prepare students for college success through a highly relevant health- and sciences-based educational experience in a small school environment that fosters student identity, commitment, and support. The Health and Science High School will act as a community access point for health and science education, serving students and families and ensuring the inclusion of the diverse community within the Beaverton School District." Using the Expeditionary Learning Model, the school's goals include:

1. Students will be college-ready upon graduation.
2. Students will demonstrate advanced critical thinking and communications skills.

3. Students will have taken responsibility for their learning, have confidence and take the opportunity to achieve their full potential.
4. Students and staff will create a collaborative and extended learning environment.
5. Staff will continue as learners as we recognize and celebrate individual growth and achievement for students and staff.

Dual Credit:

HS2 offers many classes that include dual credit, including biology, health, human body systems, medical interventions, biomedical innovations, and chemistry through a partnership with Oregon Tech (Oregon Institute of Technology). Pre-calculus is offered through PCC, and Spanish 201, Spanish 202, Spanish 203, Calculus, and Writing 121 are offered through the Portland State Challenge Link program. Dual Credit courses actually enroll students in college courses and hold them to the same expectation as all other college students.

Internships:

The HS2 Internship Program connects every student with opportunities to explore potential career paths through meaningful partnerships with businesses, agencies, and individuals. Internship partners include American Red Cross, Cedar House Media, Kaiser Permanente, Mentor Graphics, Oregon Department of Transportation, and Tualatin Valley Fire and Rescue.

High School Study Group takeaways from HS2 Tour:

The study group observed that the programming and instruction at HS2 was innovative and "fresh."

The school's equipment and student-available resources closely resemble what one might find in a current-day hospital or medical facility. Students receive hands-on training amidst their classroom learning, which correlates to internships that students are required to participate in. Community partnerships are vital in providing students with nearby opportunities to get real-world experience. Proximity, commitment, and reliability have been crucial to making HS2 and its model sustainable.

Administration said the school communicates extensively to students in other Beaverton middle schools and high schools, encouraging a diverse student group to apply for the school. HS2 has provided opportunities for many students who might not have received these types of experiences, serving as inspiration while increasing graduation rates and other assessment measures. Students are able to participate in extra-curricular activities through other BSD high schools, yet still feel strongly connected to their peers at HS2.

Study Group members noted that students have the opportunity to change their pathway track in between their junior and senior year, providing flexibility for students.

Beaverton High School

Enrollment: 1,700

Student/School Breakdown:

Beaverton High School had enrollment of 1,704 in 2015-16. Of those, 45 percent of students were economically disadvantaged, 31 percent were English Language Learners, and 16 percent students with an Individualized Education Plan (IEP).

According to the Beaverton School District website, 87 percent of their 2016 graduates attended college directly after graduation (48 percent of graduates attended 4-year colleges while 39 percent attended community college). Of the remaining 13 percent of graduates, 2 percent attended technical/vocational schools, 4 percent joined the military, and 5 percent went straight into the workforce.

Building History:

Beaverton High School, originally called Beaverton Public School, first opened in 1875, with additions and renovations made in 1885, 1902 and 1910. The school was completely rebuilt in 1916, and while there have been multiple renovations since then, the original building still stands. It is the oldest public high school in the state of Oregon that is in its original location and building.

School philosophy/course offerings:

According to BHS's website, "We strive to create technology-rich, student-centered, and inquiry-based education. Our facilities are being refurbished to offer learning spaces that foster curiosity, flexible thinking, and cooperation."

The school currently boasts three established "Pathways" and two developing Pathways. The three established pathways are digital media, health careers, and marketing. Students are required to complete 2 credits for digital media, 3-4 credits for health careers, and 5 credits for marketing. Courses in those Pathways include options like computer animation, sports and event marketing, personal finance, nurse assisting, introduction to business, video journalism, and health careers-clinic. Of the two developing Pathways (engineering and education), engineering requires 4 credits and education is still being designed. Just under a quarter of Beaverton High School students are enrolled in the Pathway program.

BHS CAREER PATHWAYS	EDUCATION	ENGINEERING	DIGITAL MEDIA	HEALTH CAREERS	MARKETING
	Developing Pathways		Established Pathways		
Required Lower-Level Courses	Child Development (1.0) **Required Credits: 1.0**	*Engineering 1 (1.0) **Required Credits: 1.0**	*Graphic Design 1 (0.5) Photography 1 (0.5) *Web Design (0.5) **Required Credits: 1.5**	Introduction to Health Careers-ELL (1.0) *Anatomy & Physiology (1.0) *Health Careers 1 (1.0) **Required Credits: 2.0**	*Computer Apps/ MS Office (0.5) *Introduction to Business/ BA 101 (0.5) *Marketing 1 (1.0) **Required Credits: 2.0**
Required Upper-Level Courses	*Advanced Child Development (1.0) Coming in 2019-2020!* **Required Credits: 1.0**	+Engineering 2 (1.0) Engineering 3 (1.0) **Required Credits: 2.0**	*Graphic Design 2 (0.5) **Required Credits: 0.5**	*Advanced Health Careers-Core (1.0) *Advanced Health Careers-Clinic (1.0) *Nurse Assisting 1 (1.0) **Required Credits: 1.0 or 2.0**	*Marketing 2 (1.0) *Marketing Seminar/ BA 205 (1.0) **Required Credits: 2.0**
Electives	TBA	*Drafting & Design/ CADD 1 (0.5) *Drafting & Design/ CADD 2 (0.5) Comp. Programming 1 (0.5) Comp. Programming 2 (0.5) **Required Credits: 1.0**	*Computer Apps/ MS Office (0.5) Computer Animation (0.5) Photography 2 (0.5) Video Journalism (0.5)	NONE	*Digital Mktg (1.0) *Mktg Management (1.0) *Sports & Event Mktg (1.0) *Personal Finance/ FIN 218 (0.5) *Graphic Design 1 (0.5) **Required Credits: 1.0**
Total Required Credits	TBA	4	2	3 or 4	5

All pathways include a culminating experience. *Dual-credit course +AP course

High School Study Group takeaways from Beaverton High School tour:

Members noted that the integration of pathways into a traditional, comprehensive high school. Administration encourages students of all background and ability to participate. Administration also noted that the correlation between academic success and students engaged in Pathways (state test scores and graduation rates among others) was high compared to the BHS school averages.

Administration said that Pathways took some time to establish early on as students familiarized themselves, and programs became established. Initial transition of staffing and program was a challenge but has since stabilized. Student participation has been consistent since the inception.

Study Group members were able to compare Beaverton High's Pathways to those at HS2 and CAL. At BHS, students receive hands-on, real-world experiences, but maintain a schedule similar to their peers who aren't enrolled in a Pathway.

Henrietta Lacks Health and Bioscience High School:

Established: 2013

Current Enrollment: 589

Overview:

Henrietta Lacks Health and Bioscience High School, part of the Evergreen School District, serves grades 9-12 and was funded in part by various hospitals, clinics, and research facilities throughout Vancouver. Students choose from one of four program areas, and also participate in job shadows and internships during their junior and senior year. The four programs of study

include Nursing and Patient Services, Biomedical Engineering, Pharmacology, and Biotechnology.

Excerpt from an article published by The Columbian right before the school opened:
"The 60,000-square-foot building was designed by LSW Architects and constructed by Skanska USA. If needed, an additional 20,000 square feet may be added later. Its high-tech design is apparent both inside and out. Two levels of solar panels on the south side will help provide power. The floors on the first level are polished concrete, and in the student commons the floor is heated for comfort.

Students will learn real-world nursing skills in the four-bed nursing station, complete with a simulated, interactive robot patient called SimMan. A simulation pharmacy and well-equipped laboratories will provide more hands-on learning. The library, called the research lab, will be stocked with a combination of electronic books and traditional paper textbooks.

HeLa isn't a traditional high school. It won't have sports teams, so instead of a large gym, the school has a fitness room where students will learn lifelong fitness using resistance training, mats, Pilates and medicine balls. There won't be a marching band or pep band, but a scaled-down music program may offer orchestra or symphony.

The first school year, the student body will consist of about 125 freshmen and 125 sophomores. The next two years, 125 freshmen will be added each year, so that 500 students eventually will be enrolled there. Students interested in attending the school completed an application and are being chosen via a lottery system from the district's comprehensive high schools, with an equal number of students coming from each school.

Classes will be integrated to create an overall focus on health and biosciences, Tumelty said. As an example, she said in English class, students will use informational texts and literature that are science-based.

"The goal is for students to see the connections between the disciplines so that they get a better view of how the real world works," Tumelty said. "Teachers will be working on creating these connections in authentic ways for students."

Freshmen and sophomores will take anatomy and physiology along with chemistry and biology "to give them a really good base in science," said Elisabeth Harrington, the district's director of curriculum and instruction. Before they enter their junior year, students will have to choose one of five pathways: nursing and patient care; health informatics (data processing); biomedical engineering; pharmacy; or biotechnology.

"In the first two years, as they're doing A&P, there will be a heavy emphasis on medical terminology," Harrington said. "Once they've picked their pathway, as juniors they'll partner with PeaceHealth with job shadowing opportunities. Seniors will have internships at PeaceHealth.""

CREDIT: The Columbian

High School Study Group takeaways from HeLa:

Members noted that, of the schools toured, Henrietta Lacks most closely resembled what it's like to work in the professional world. Facilities mimic hospitals, pharmacies, and medical facilities today, which is especially beneficial when students leave for their nearby internships.

An example is the pharmacy learning center within HeLa, which includes a simulated pharmacy in the classroom. Look-a-like vitamins, antibiotics, and other pills in pharmacy bottles) are organized like they would be in an actual pharmacy, as students learn about prescription drugs, medical terminology, and the inter-workings of pharmacies.

Like HS2, HeLa communicates extensively about its program to students in other district high schools, building awareness of the opportunities it presents students. HeLa administrators meet with middle school and high school students every year to share the career pathways their school provides while encouraging parents to learn more. Administration says these meetings and outreach time-consuming, but result in a strong student enrollment.

HeLa students spend their entire day at the options high school, meaning HeLa provides core programming in addition to pathway courses. They also provide as many electives as possible — those electives that students would expect at a comprehensive high school — which has meant creative scheduling.

Administration noted that it takes a unique commitment from teachers to teach at a school like HeLa. The scheduling structure means teachers have to teach a variety of subjects. Finding staff that embraces the culture and uniqueness of a school like HeLa has been a priority.

Of note, all students are bused or driven by parents. There is no student parking allowed on campus or on nearby neighborhood streets.

North Creek High School

Enrollment: Roughly 1,600

School Breakdown: North Creek High School is a comprehensive high school located in Bothell, Washington. The building was built to accommodate 1,600-plus students. 2017-18 was the first year of operation with reported enrollment of 1,275. Enrollment is expected to jump to 1,700 in the 2018-19 school year.

Building Layout: There are two two-story academic buildings with classrooms on all levels. The third building houses the gym, commons, choral/instrumental music classrooms and practice spaces, performance venue and class/open practice space, two health classrooms, yoga/aerobics room, weight room, art rooms, and an engineering class with a computer lab. While the school offers STEM courses, it is not considered a STEM school.

*What makes North Creek High School unique***:** The building was constructed with a flexible and innovative design, which aids project-based and problem-based learning. Learning is meant to extend beyond the physical classroom and throughout the entire school and campus, giving students real-world knowledge and skills.

The school wants to be known as an "ultra-green learning community" for environmental sustainability. The building and grounds utilize geothermal energy harvesting, rain gardens, natural lighting, and storm water management, which science classes routinely study and monitor by extending their learning outside of the classroom.

The school utilizes a variety of classroom sizes and learning spaces. The school includes "Collaboration Cubes" in the hallways, as well as larger group learning spaces. The Collaboration Cubes can be used for group work and meeting areas. Classrooms were constructed to promote student collaboration, with a glass wall that can be removed to open up the fourth wall of the classroom into the hallway. Classrooms have a flat panel display instead of white board and projector, which is also intended to help teaming and project-based learning.

Outside the school structure, students and staff can access technological resources for outside laboratory study of surrounding wetlands and habitats. Classrooms aren't designed by department, they're largely interchangeable, so that the school is free-flowing. There's a teacher-planning room on every floor to encourage teacher collaboration, as well. The school enjoys a two-floor library/innovation center, which includes a large windowed area and deck, so students can study outside.

High School Study takeaways from North Creek High School:

The school does not have defined pathways, but does have an emphasis on facility and how facility impacts programming, collaboration, and student learning. The building is state-of-the

art, with every wall, staircase, and classroom intentionally placed to maximize student learning. The facility and its landscaping was also planned with environment in mind, for both efficiency and sustainability. Study Group members noted that, through an online virtual tour, the learning spaces integrate and overlap to increase collaboration between students.

Planning for North Creek High School involved both community and students from the onset. Because the school implemented a schedule that was completely new to the district, parents and students were surveyed to look for improvements. Everything from start and end times was discussed, with community input not only gathered but considered as well. Students were tasked with finding the school mascot and colors, giving the greater community and student body a sense of school spirit and ownership before it even opened for the first day of school.

Administration noted that staff transitioning to a new school is often a challenge, as the school is unique. The classrooms are designed to encourage more student activity and discussion rather than a teacher lecture format. Each classroom has a glass wall that looks out into hallway learning spaces, promoting transparency of teaching and learning.

In its first year, administration says staff and students both have adapted to the layout of the school, and their sense is that peer collaboration is taking part on a daily basis. They attribute this to both the building and a shift in culture.

Overall findings from high school tours:

High School Study Group members reported that the innovation of nearby high schools is inspiring, and that implementation of various ideas and program components can occur in WLWV both short-term and long-term.

The High School Study Group made the following observations:

1. There's opportunity for increased real-world and hands-on learning in the West Linn-Wilsonville School District.
2. Career Pathways or increased Career Technical Education (CTE) courses such as those witnessed at other schools could aid in preparing students for career.
3. Many of the high schools have become skilled at integrated internship and dual credit opportunities into their programming and high school schedule.
4. Programming should drive facility, and not the other way around.
5. The high schools that were toured are doing an impressive job of partnering with local industry to provide real-world and career-based educational opportunities for students. Industry experiences provide students with work experience while introducing them to careers they might not otherwise consider.
6. Students learn many skills through pathway programs that prepare them for college as well, including time management, problem-solving, the application of knowledge, and study skills among others.
7. High student engagement was evident at each visited school. There is value in providing pathway opportunities to better connect students to their learning and promote lifelong learners as well as a growth mindset.
8. Scheduling varied at visited schools. How might the district think outside the box, long-term, to provide increased flexibility and options for students? Nontraditional schedules

could maximize learning opportunities, providing increased equity for all students. Evening classes or weekend classes might be worth considering in the future.
9. There was an emphasis and evidence of both student collaboration and teacher collaboration as well as flexibility.
10. A large amount of project-based learning is taking place at the various high schools, building communication and teamwork skills that are vital in the workplace.

Community Feedback

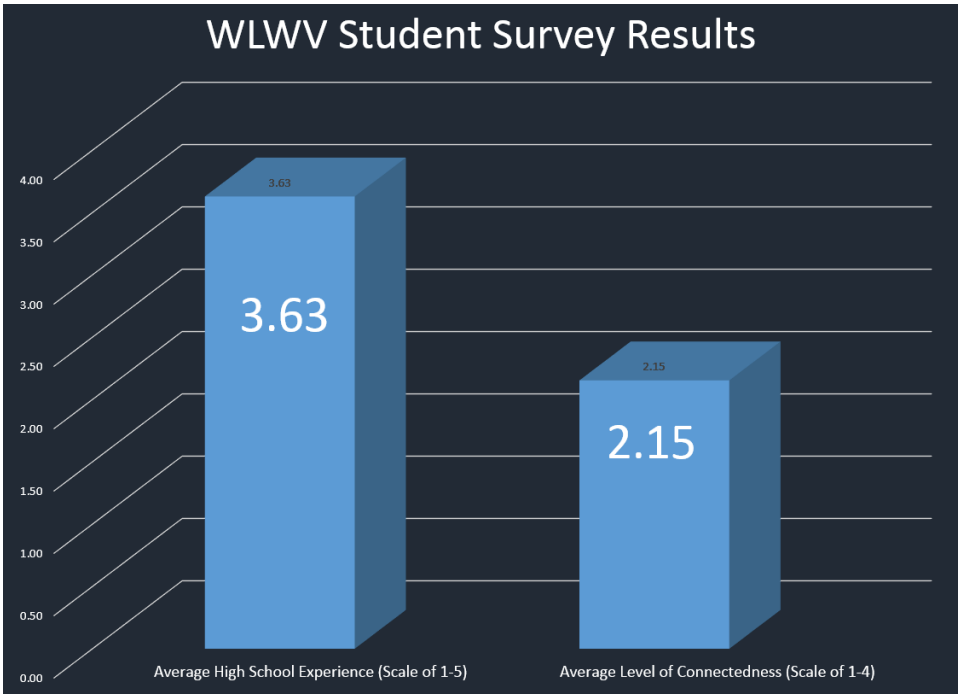
On January 12, Superintendent Dr. Kathy Ludwig hosted a joint meeting of the West Linn and Wilsonville Rotaries, giving a presentation describing Generation Z and innovative high school designs. The gathering was an opportunity to lead together, engaging the broader community in thinking about how high schools have evolved, relevant learning experiences, and how communities could partner with school districts. Rotary members were asked to discuss what skills they believed high school students should be learning to be best prepared for the job force, while brainstorming how high school could better integrate and collaborate with the community.

Recommendations and wonderings from Rotary members included:

1. More **STEM education** and opportunity for ALL students.
2. Introduce **STEM education** at a younger age — not just middle school and high school.
3. **Technical skills and vocational education** is oftentimes just as important as academic knowledge.
4. **Connecting local professionals** to schools in areas such as medical and business industries.
5. **Mentorship programs**, providing students with professional networks in the community while introducing students to the workforce.
6. Grow **partnerships with local colleges** such as Clackamas Community College and Oregon Tech.
7. **Leverage opportunities in high-tech** with local companies such as Mentor Graphics and FLIR.
8. Provide **real-world education** around topics such as financial literacy while building "soft" skills.
9. Build in **"career pathways"** such as health/wellness, entrepreneurship, and marketing.

Student Feedback (Survey Data)

To gather student input, more than 100 juniors and seniors were surveyed about their current high school experiences, what has been beneficial to them as learners, and what areas of their high school experience could be improved.



The following is summarized feedback from those surveys.

- On a scale of 1-5, with 1 being poor and 5 being outstanding, surveyed students reported an **average high school** experience of 3.63.
- On a scale of 1-4, the average for **coursework connectedness** was reported at 2.15.
- Many students asked for **increased hands-on learning opportunities** and courses that prepared them for specific careers.
- Students reported that they feel prepared for **college**, but not necessarily for their **future**. They reported feeling unprepared for living on their own and traversing life after high school.
- Choice was very important to students. Many responses showed desire for more **flexibility in the high school schedule** and increased chances to study subjects interesting and relevant to students.
- Students reported a desire for **increased collaborative time** and more project-based learning as opposed to lectures and tests.
- Students expressed a desire for more **control over schedule** and less restriction by "bells" and rigidness.
- **Journalism, computer science, STEM, and the arts** were all classes that students mentioned as being particularly helpful or engaging.
- Students report that they have too much on their plates. Students reported that **less homework and school-related stress** would help students succeed.
- Multiple students asked for **more options** for evening and weekend classes.

- Students said the pressures of high school can be significant, and that **increased mental health resources** would be beneficial.

Student Feedback (Focus Groups)

Following student survey data, the High School Study Group met individually with student focus groups from West Linn High School, Wilsonville High School, and Arts and Technology High School. Students were asked about their current high school experience; what parts of their school day are relevant to what they want to do after high school; how prepared they feel for both college and career; what changes they would make to their school and schedule; what they like about their school and schedule; and any other thoughts or feedback they might have. The following are summaries of those discussions.

Arts and Technology High School (7 students, made up of juniors and seniors)

- Strong desire for courses focused on **real-world skills**, including financial literacy, culinary arts, computer science, and engineering among others.
- Students report that **smaller class sizes** enhance learning and the classroom experience.
- **Extra support** is pivotal for students with learning disabilities.
- Desire for **increased one-on-one time** with teachers.
- **Less homework** would allow students to participate in additional extra-curricular activities and also allow for recuperation after long school days. Workloads feel unmanageable at times.
- **Flexibility in course selection** improves engagement and makes students feel more connected to their learning.
- **Individualized learning targets** increase student confidence and likelihood of sticking with challenging material.

West Linn High School (14 students made up of juniors and seniors)

- **Flexibility in course selection** improves engagement and increases student connection to their learning.
- Student desire for courses focused on **real-world skills**. Financial Literacy was a unanimous and strongly-suggested course offering.
- **Schedule flexibility** — the ability to attend evening or weekend classes — would benefit students in a variety of ways, allowing for real-world working and internship opportunities while providing more time for homework and extra-curricular activities.
- Students felt **overworked** and therefore disengaged at times. Students did, however, report a slight decrease in workload in recent years, as teachers have increased communication with one another and made efforts not to overload students.
- Students report an increase in **activity-based and project-based learning**, but unanimously asked for more in all subjects.
- Students value the support system in place but see a benefit in **increased mental health resources**.

- Students desire **increased counseling in finding career-based trades and internships** following high school graduation. Students report strong counseling supports for college exploration, but not career-based exploration.
- Students prefer **shorter class periods** as opposed to longer class periods.
- Students report strong interest in **internship opportunities** for class credit as well as Career Pathway Programs.

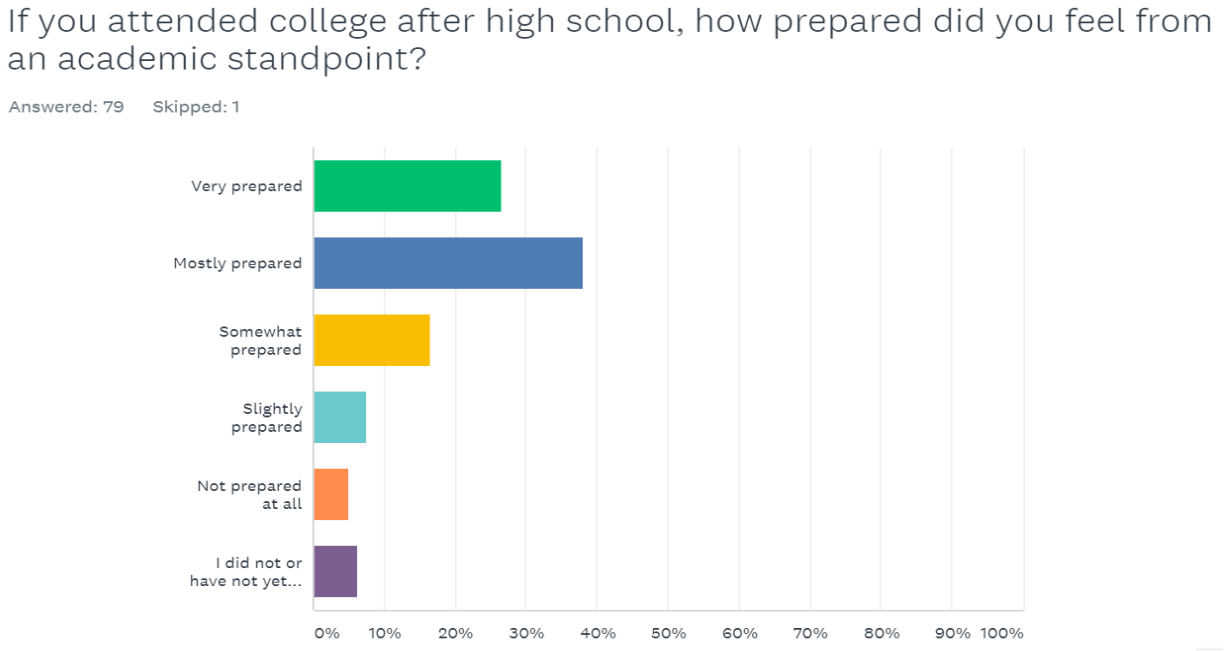
Wilsonville High School (6 students comprised of juniors and seniors)

- Strong desire for **real-world skills and knowledge**, particularly in financial literacy.
- Strong interest in **internship opportunities** for credit. Students' main concern would be transportation.
- Strong interest in **CTE Pathways** depending on Pathway options.
- Students report that **rigid credit requirements** are limiting in their course selection. Students felt they **miss out on many learning opportunities** they would take advantage of if their schedule allowed.
- Strong support for **project-based learning**.
- Students felt **overworked with homework**, which negatively affects engagement during the school day.
- Desire for core courses to be made more relevant in terms of **real-world application**.
- Students report indifference to their current class schedule, but recommend a **free period** during the week to get caught up on school work.

WLWV Alumni Feedback (Survey Data)

The High School Study Group also sought feedback from recent West Linn-Wilsonville alumni. To hear from past high school students, 80 alumni from the past 10 years were surveyed. Alumni were found via email and social media. Of the 80 responses, 49 graduated from West Linn High School and 31 graduated from Wilsonville High School. The following is a summary of those

survey results:



- Reported **high school experience** was an average of 3.89 out of 5.
- Alumni reported feeling **prepared for college** (65 percent reported feeling mostly prepared or very prepared). Only 48 percent of alumni reported feeling mostly or extremely **prepared for the workforce**, however.
- **Time management** was the most widely reported skill that alumni felt they lacked following graduation.
- Students reported that high school coursework felt more **connected to their career** following high school graduation than during their high school experience. Alumni recorded an average connectedness of 3.46 out of 5, with 1 being not at all connected and 5 being very connected.
- **Strong interest in internship opportunities.** Of 78 responders, 59 percent reported they would have been very interested, and 28 percent reported they would have been interested depending on the internship.
- **Even stronger interest in Career Pathways.** Of 80 responders, 73 percent reported that they would have participated, and 25 percent reported they would have depending on the options.
- **Financial Literacy** was the No. 1 offering alumni would have added to their high school experience. Of 69 responses, 47 alumni noted financial literacy. Other suggested courses included professional writing, workplace behavior, culinary, and computer science.
- Alumni suggested **counseling resources for career** in addition to college counseling and resources.

Parent Feedback (Focus Group Forum)

The High School Study Group engaged parents in discussion around high school. The Study Group hosted a Parent Focus Group on May 28, inviting all parents in the district to provide

input, ask questions about the study, and learn about their students as learners. Approximately 20 parents attended. Karina Ruiz introduced parents to Generation Z, answered questions, and Superintendent Dr. Kathy Ludwig provided an overview of the High School Study to date. In groups, parents shared their experiences and observations from their children while providing input on what they would want to see in future high school structure and programming. Parent feedback was also solicited via email, with 12 parents providing in-depth thoughts and input. The following is summarized feedback from West Linn-Wilsonville parents:

- Parents noted their students are oftentimes **overworked** and "drained."
- Parents value the **integration of learning** so that students **learn to apply knowledge** in a variety of settings.
- Strong desire for embedding **cultural awareness education** into the school day.
- Parents noted that increased emphasis and attention to the **transition from middle school to high school** would accelerate student growth and ensure success.
- **"Life Skills"** are pivotal in today's society as families have less time to teach students at home.
- Strong desire for **increased low-stakes learning** to decrease stress levels of students.
- Strong interest in **internship opportunities** for students.
- Appreciation for increased **hands-on and project-based learning** in the classroom.
- Parents greatly value West Linn-Wilsonville's **strong arts and sports programs**, but want to increase student **exposure to the professional world**.
- Openness to an **outside-the-box schedule** for students who would excel with night or weekend course offerings. Also a reported openness to a year-long schedule.
- Interest and desire to learn more about **Career Pathways and CTE**.
- Parents strongly value **small class sizes and one-on-one** learning opportunities with teachers.

Teacher Summit with Diana Laufenberg

On April 28, West Linn-Wilsonville teachers were invited to participate in a High School Summit with Guest Speaker Diana Laufenberg — a nationally known keynote speaker on transforming high schools and founder of Inquiry Schools. Laufenberg led the morning of learning, introducing teachers to some of the cutting-edge education taking place in high schools across the nation before garnering teacher feedback for the High School Study Group to consider. Teachers then reflected on their own teaching philosophies and methods, learning new

techniques, while envisioning possibilities for the future in West Linn-Wilsonville as well. The following is summarized teacher feedback from the Summit:

- Desire to review and rethink **the high school schedule** to provide more student choice and teacher collaboration.
- Increased partnership with local **universities and industry-based organizations**.
- Teachers felt a need to **increase career-based learning** instead of catering to future college students.
- Consider teaching models and structures that include **individualized student learning** that is feasible in reaching every student.
- Exploration of moving away from **College Board and the GPA model**.
- Interest in increased course options and **Career Pathways**.
- Rethink homework to promote student **health and mental wellness**.
- Desire for **increased collaboration** between the middle and high school levels.
- Teachers note a need to **improve the ninth grade transitional experience** for students.

Summary of Themes from Surveys and Focus Groups

A number of common themes emerged from students, parents, and teachers. While each identified group brought a unique in response to survey questions, there were many reoccurring threads. Those themes include:

- Strong interest in Career Pathways and credit-based Internship opportunities.
- Future exploration of the high school schedule.
- Decrease outside-of-school student workloads (i.e. homework).
- Emphasis on skills-based and project-based classroom learning.
- Adding course offerings and course flexibility for students.
- Improve transition from eighth grade to ninth grade.
- Increased career counseling and resources as well as mental health supports.
- Emphasis on one-on-one learning opportunities with teachers.

Learning Space Needs

The high school study originally included a fourth component, "examine current and future demographic data and enrollment trends that inform learning space needs." Because the School Board and school district contracted with a different demographer, the data and trends were unavailable during the year of this study. Therefore, this group did not engage in any analysis or conversation regarding learning space needs.

Findings

The High School Study Group acknowledges the district's current high school programming and graduation outcomes to be particularly strong; and, encourages district leadership and staff to continue striving towards improvement, innovation, and unprecedented outcomes.

Based on the research, visitations, and surveys conducted through this study, the High School Study Group offers these findings, which hopefully will serve as key information to guide current and future program decisions, learning models, and facility designs for our community's high school students.

Finding One: High school students value relationships with their teachers and peers, being known and being connected to their school community in at least one or many ways.

Finding Two: Current high school students communicate that their academic and co-curricular activities and responsibilities contribute to a degree of stress.

Finding Three: CTE and career-based opportunities that expand business and industry partnerships and include internships/externships for high school students are of high interest.

Finding Four: Rethinking or adjusting the high school schedule to expand upon current course offerings throughout the day, as well as outside the typical school day, increases student choice while maintaining a priority for teacher collaboration.

Finding Five: Teaching models and structures that promote flexibility of class size; expanded course offerings; access to real-world models, artifacts, and application of learning; and differentiated instruction are highly valued by students, teachers, and parents.

Finding Six: Future high school learning spaces should be designed to promote student-centered learning experiences, accommodate program priorities, support instructional best practices, and facilitate teacher collaboration.

Research/Texts

In addition to primary research, the High School Study Group reviewed research on high school program and design, Generation Z, model facilities, and ways to maximize student engagement. Those texts, articles, and research studies include:

1. Conley, David T. *College and Career Ready: Helping All Students Succeed beyond High School*. Jossey-Bass, 2010.
2. Corrigan, Paul T. "Preparing Students For What We Can't Prepare Them For." *Teaching & Learning in Higher Ed.*, 23 Dec. 2013, teachingandlearninginhighered.org/2013/07/15/preparing-students-for-what-we-cant-prepare-them-for/.
3. Gallup, Inc. "2015 Gallup Student Poll -- Overall Report." *Gallup.com*, 6 Jan. 2016, www.gallupstudentpoll.com/188036/2015-gallup-student-poll-overall-report.aspx.

4. June 16, 2017; "Decoding Deeper Learning in the Classroom." *Hewlett Foundation*, 16 June 2017, www.hewlett.org/decoding-deeper-learning-in-the-classroom/.
5. "Learning from Student Voice: College & Career Readiness 2017." *YouthTruth*, youthtruthsurvey.org/college-career-readiness-2017/.
6. Lichtman, Grant. *Moving the Rock: Seven Levers We Can Press to Transform Education*. Jossey-Bass, 2017.
7. Nair, Prakash. *Blueprint for Tomorrow: Redesigning Schools for Student-Centered Learning*. Harvard Education Press, 2017.
8. "New Vancouver High School Will Focus on Health, Bioscience." *The Columbian*, 22 Feb. 2013, www.columbian.com/news/2013/feb/23/vancouver-high-school-focus-health-bioscience/.
9. "Our Philosophy." *ICLE | The Rigor Relevance Framework*, www.leadered.com/our-philosophy/rigor-relevance-framework.php.
10. Oymak, Ceylan. "High School Students' Views on Who Influences Their Thinking about Education and Careers." *Stats in Brief — U.S. Department of Education*, Jan. 2018.
11. Pamplin Media Group. "What's Missing from the Lake Oswego School District Bond?" *Https://Joomlakave.com*, 28 Dec. 2017, pamplinmedia.com/lor/108-education/382454-269605-whats-missing-from-the-lake-oswego-school-district-bond.
12. "The Power of Unlearning"; learningscapes2017.a4le.org; Michelle Chavey, Jamie Dial; Park Hill School District; 2015.