



# Preparing Students who are “Ready”

*School Board Work Session • March 9, 2020*

# Our Vision for Woodland Public Schools

Woodland Public Schools, in partnership with families and the community, will create a PreK-12 system that serves and supports ALL children-and ensures that EACH child has FULL access to, is engaged in, and obtains an excellent education that prepares them for responsible citizenship and a future of adaptability and success in life and their chosen endeavors



That was then....



**This is now...**





**That was then...**



**1959**

**DEC PDP-1**

**The First Commercial Solid-State Computer**

**Size: 8' x 2' x 6'**

**Speed: 100,000 calculation per second**

**Cost: \$120,000 (2019 Dollars-\$1,050,000)**

**Number Sold: 50**



**This is now...**



**2019**

# **Apple iPhone 11**

**latest model of the ubiquitous pocket computer**

**Size: 6" x 3" x .33"**

**Speed: 1 Trillion+ calculations per second**

**Cost: \$699**

**Number Sold: about 75 million (so far)**





That was then....

This is now...





That was then....





K  
02

cinetic

22  
SMART Car®

This is now...

What will be children's future?

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# Preparing Students for a Changing Economy

Brookings: [Automation & Artificial Intelligence: How machines are affecting people and places](#) *January 2019*

*“Automation and AI will affect tasks in virtually all occupational groups in the future but the effects will be of varied intensity—and drastic for some.”*

*“The impacts of automation and AI in the coming decades will vary especially across occupations, places, and demographic groups.”*

# Preparing Students for a Changing Economy

Brookings: [Automation & Artificial Intelligence: How machines are affecting people and places](#) *January 2019*

*“Routine, predictable physical and cognitive tasks will be the most vulnerable to automation in the coming years”*

*“The impacts of automation...will be visible especially among lower-wage, lower-education roles”*

*“Routine-intensive jobs were largely replaced by lower paying service jobs”*

# Preparing Students for a Changing Economy

**Forbes:** [Grads of Life— The JOBS Act will Power Work of the Future](#)

*July 21, 2019*

“Two staggering statistics about the future of the tech sector exist alongside each other: The first is that by 2026 the Labor Department projects that the tech sector will see over 557,100 job openings. The second, from a recent report released by Dell Technologies found that 85% of the jobs that will exist in 2030 have not yet been invented.”

# Preparing Students for a Changing Economy

**The Nation Magazine:**

**November 1959**

*“We are stumbling blindly into the automation era with no concept or plan to reconcile the need of workers for income and the need of business for cost-cutting and worker-displacing innovations,”*

*“The problem we shall have to face some time, is that the working force is expansive, while latter-day industrial technology is contractive of man-hours.”*

***WE'VE BEEN HERE BEFORE!!!***



To solve the cube, you need special skills and understanding, for example, pattern recognition is very important to solve the cube

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**-Erno Rubrik,  
Inventor of Rubik's Cube**



4.221

SPEED STACKS®

“If you can write an algorithm  
for a task, the job is gone.”

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**-Bill Daggett**



0.25x Speed



“If you can write an algorithm  
for a task, the job is gone.”

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**-Bill Daggett**



# ROBOTIC KITCHEN



“If you can write an algorithm  
for a task, the job is gone.”

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**-Bill Daggett**



**VICE** News | HBO

“If you can write an algorithm  
for a task, the job is gone.”

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**-Bill Daggett**

# Education beyond HS matters more than it used to

## **Wanted: Factory Workers, Degree Required:**

— *New York Times* — January 30, 2017

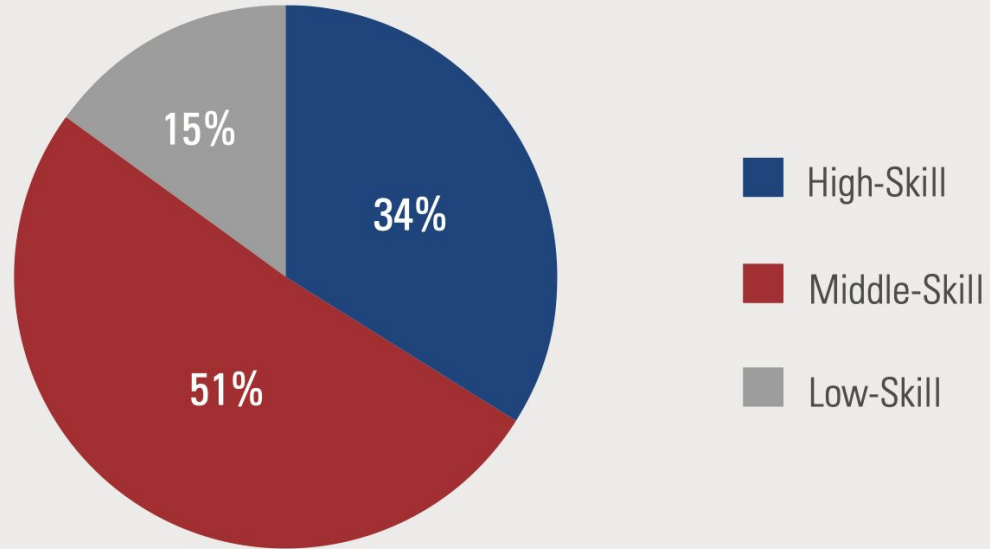
*John Deere dealerships repair million-dollar farming machinery filled with several dozen computers. Fixing tractors and grain harvesters now requires advanced math and comprehension skills and the ability to solve problems on the fly. “The toolbox is now a computer,”*

*“In our factories, there’s a computer about every 20 or 30 feet,” said Eric Spiegel, who recently retired as president and chief executive of Siemens U.S.A. “People on the plant floor need to be much more skilled than they were in the past. There are no jobs for high school graduates at Siemens today.”*



# Demand for Middle Skill Jobs is Strong

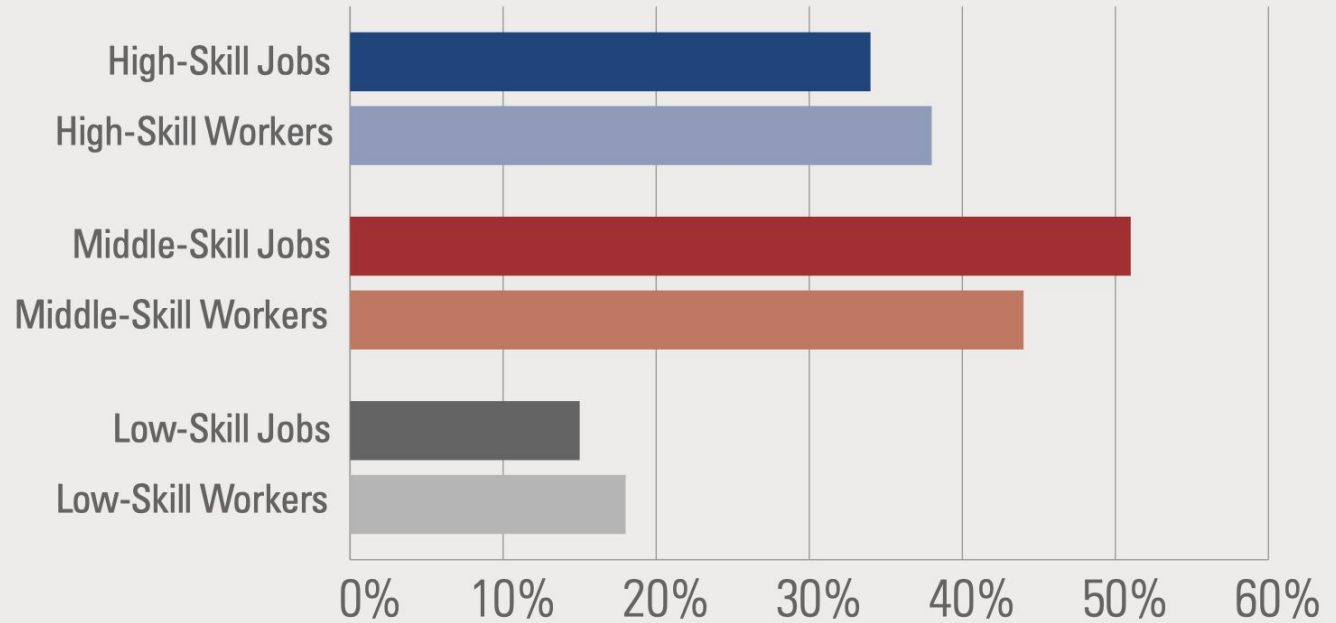
Jobs by Skill Level, Washington, 2015



*Source: NSC analysis of Bureau of Labor Statistics Occupational Employment Statistics by State, May 2015.*

Middle Skill Jobs account for 51% of the Labor Market and 44% of Workers

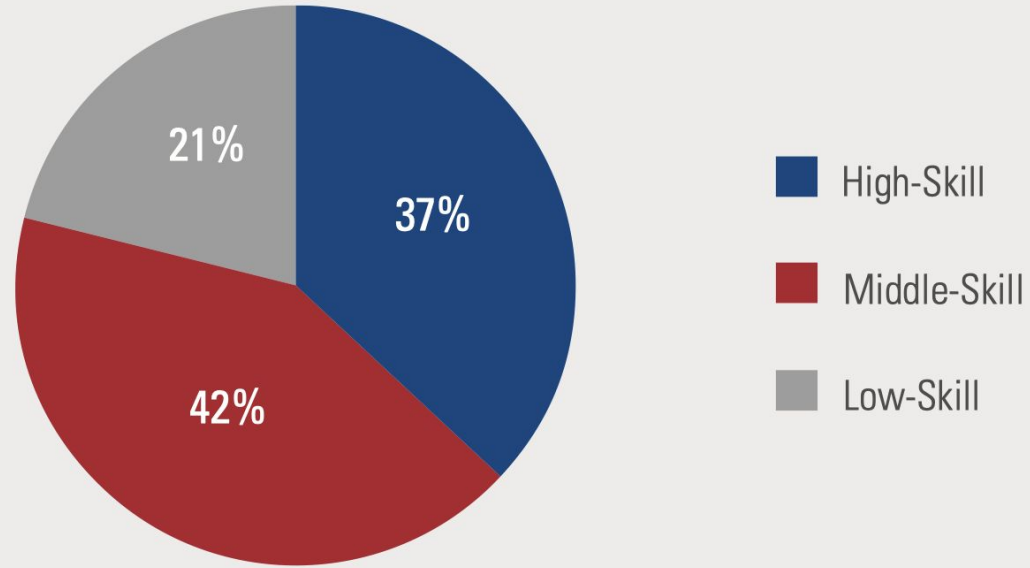
## Jobs and Workers by Skill Level, Washington, 2015



Source: NSC analysis of Bureau of Labor Statistics Occupational Employment Statistics by State, May 2015 and American Community Survey data, 2015.

Demand  
for Middle  
Skill Jobs  
Will  
Decrease,  
but still  
Remain  
Strong

## Job Openings by Skill Level, Washington, 2014-2024



*Source: NSC analysis of long-term occupational projections from state labor/employment agency.*

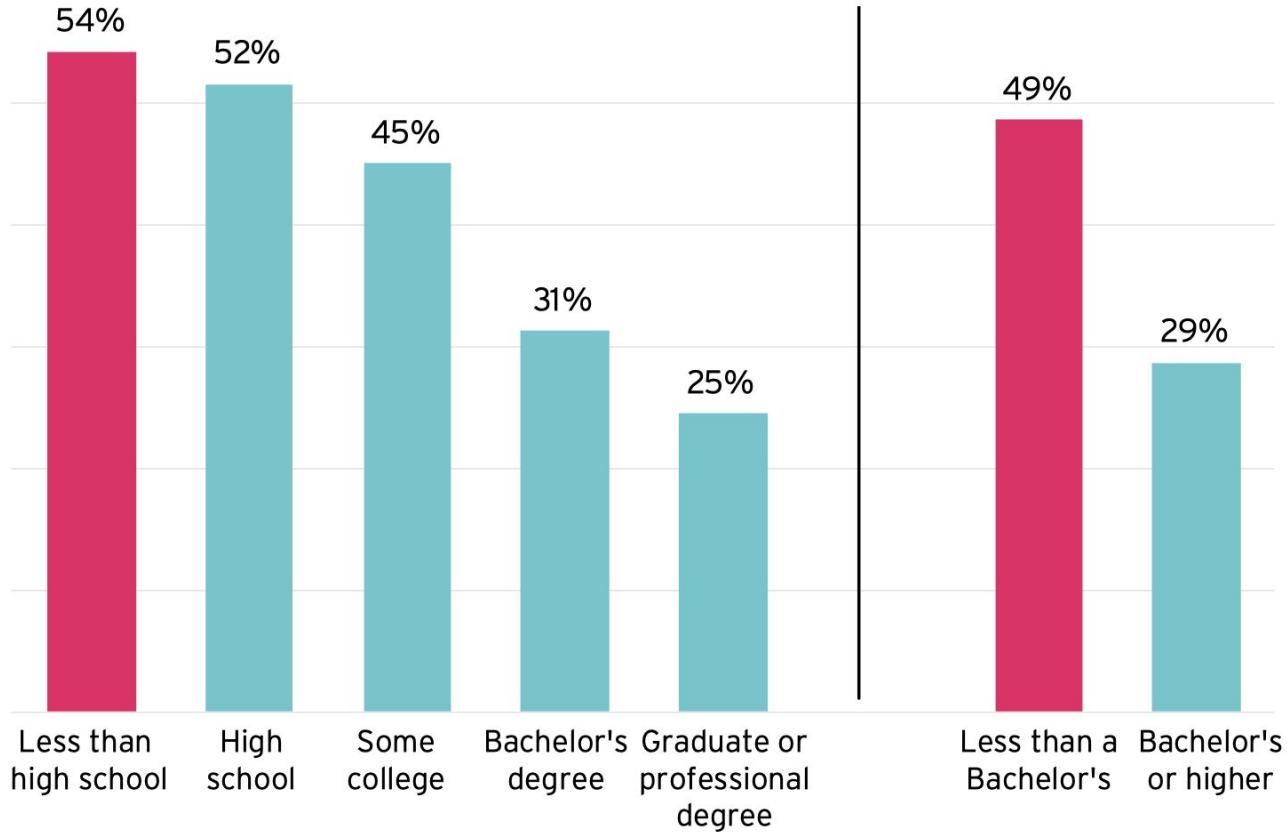
# Education beyond HS matters more than it used to.

“ Education matters more than it used to. In the 1970s, high school graduates who did not have a four-year college degree were well represented among the middle and upper class. They no longer are, as high-paying, blue-collar jobs have become rarer. College graduates have not suffered as much, though they are also less likely to be high income than they were in 2000.”

Source: NY Times, [\*“The Shrinking Middle Class”\*](#) Jan 26, 2015

## Non-college workers will see greater job change from automation

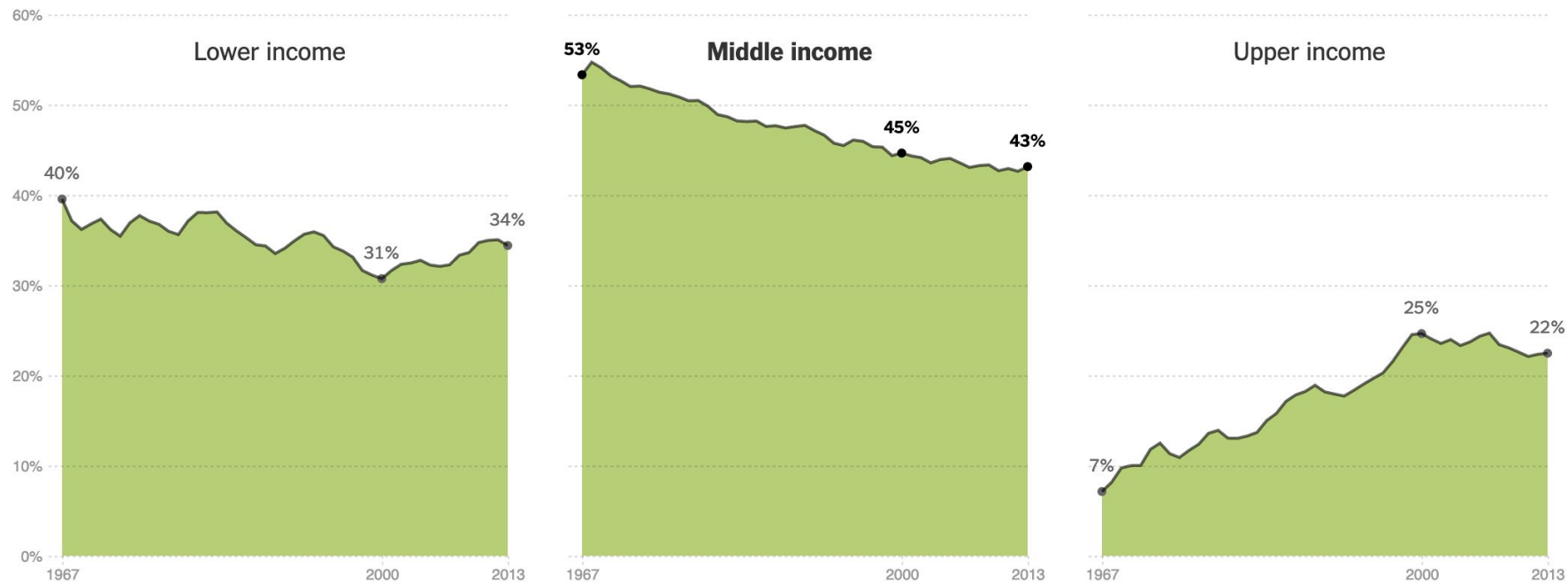
Average automation potential by worker educational attainment, 2016



Source: Brookings Analysis of 2016 American Community Survey 1-Year microdata



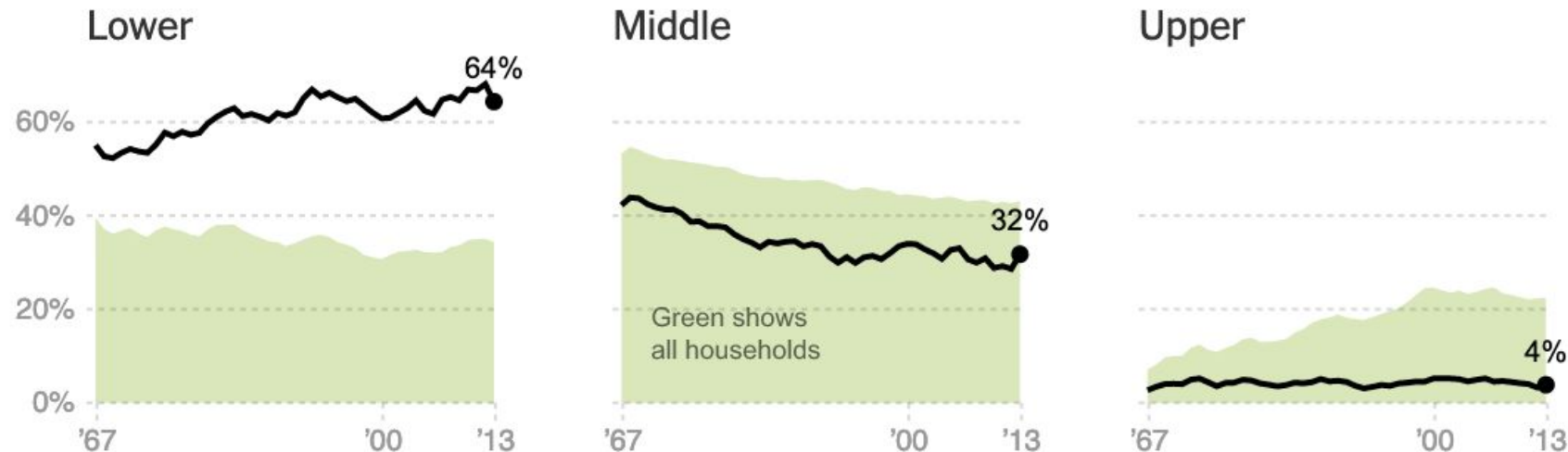
# The Shrinking Middle Class



Source: NY Times, [“The Shrinking Middle Class”](#) Jan 26, 2015

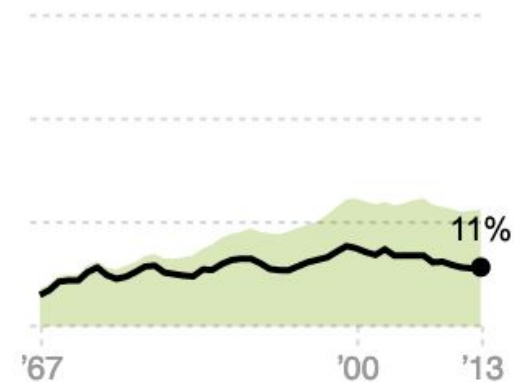
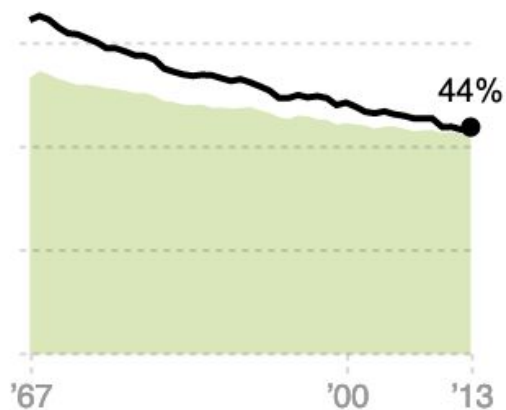
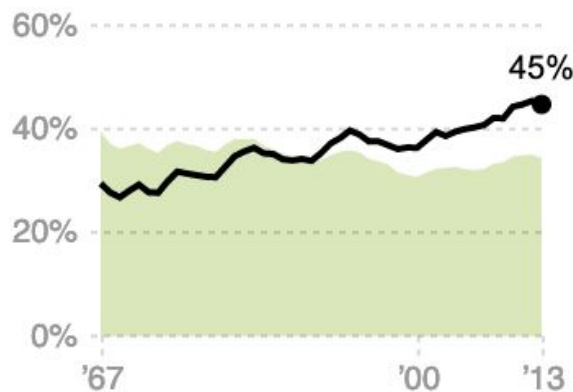
# Impact of Education on Economic Class

● LESS THAN HIGH SCHOOL



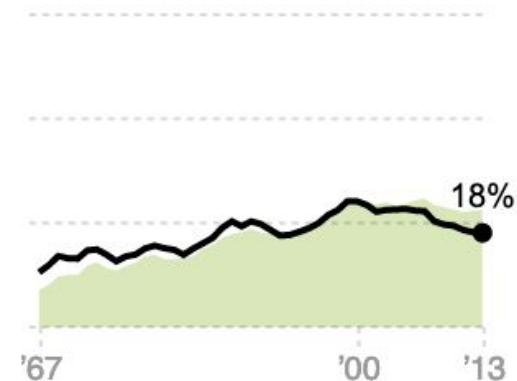
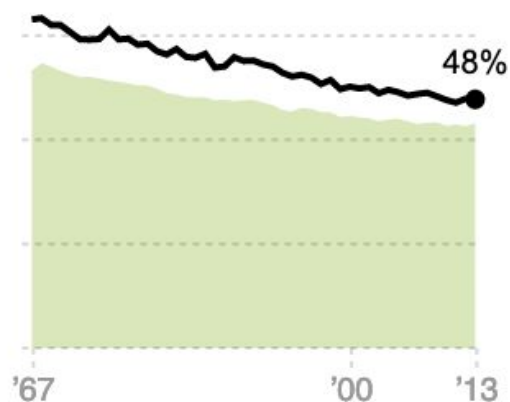
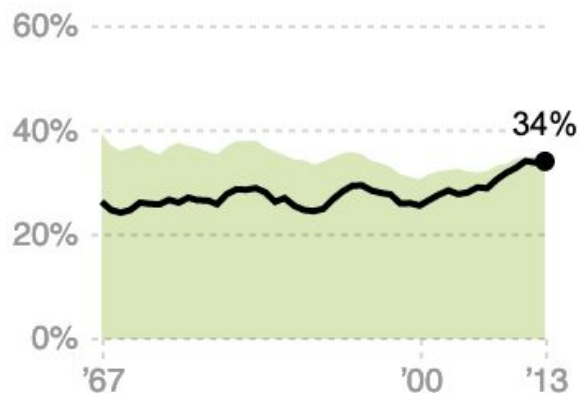
# Impact of Education on Economic Class

—● HIGH SCHOOL



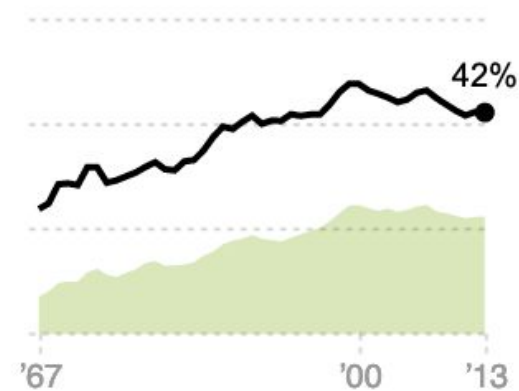
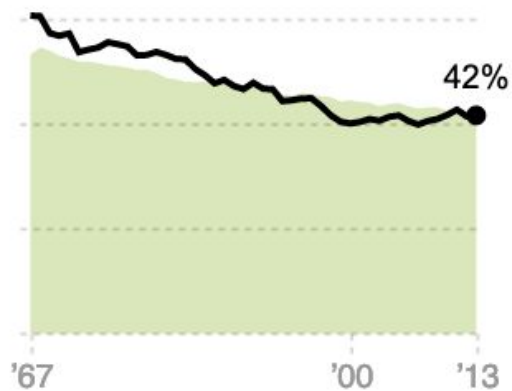
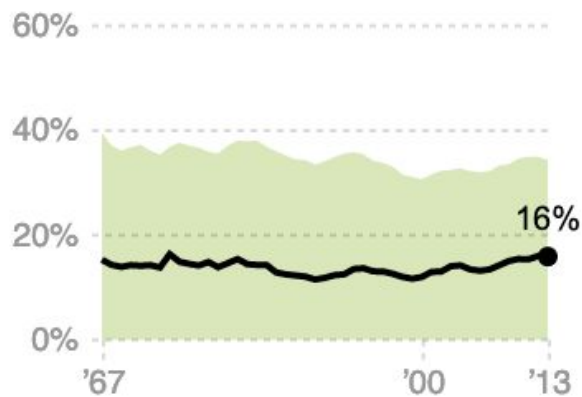
# Impact of Education on Economic Class

● SOME COLLEGE



# Impact of Education on Economic Class

● COLLEGE



# Willard Daggett: Top 10 Skills

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Active Listening
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility





# NSBA: Commission to Close the Skills Gap

1. Dependability and reliability
2. Adaptability/trainability
3. Critical thinking
4. Decision-making
5. Customer focus
6. Teamwork



# Our Vision for Woodland Public Schools

Woodland Public Schools, in partnership with families and the community, will create a PreK-12 system that serves and supports ALL children-and ensures that EACH child has FULL access to, is engaged in, and obtains an excellent education that prepares them for responsible citizenship and a future of adaptability and success in life and their chosen endeavors

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Woodland Public Schools, in partnership with families and the community, will create a PreK-12 system that serves and supports ALL children-and ensures that EACH child has FULL access to, is engaged in, and obtains an excellent education that

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our WHY

ALL Woodland Students READY!

for Careers

and

for Life

and

for College



# Our WHY

ALL Woodland Students READY  
for Careers  
for Life  
for College

All Graduates Ready for CAREERS	All Graduates Ready for LIFE	All Graduates Ready for COLLEGE	
		College Ready (2-year and Tech College Ready)	4-Year College Ready (Washington Public Universities)
<i>Equipping Woodland students to enter into a highly complex, diverse and evolving workforce</i>	<i>Empowering Woodland Students with the knowledge, soft-skills, dispositions, and experiences to tackle and achieve their goals</i>	<i>Ensuring that Woodland students will possess the skills and dispositions to explore their education after high school graduation</i>	
<p><b>Woodland students will be considered “Career Ready” when they have:</b></p> <ul style="list-style-type: none"> <li>Identified a career pathway AND meet two or more of the indicators below:</li> <li>90% Attendance</li> <li>Two or more organized Extracurricular and/or Co-Curricular activities</li> <li>Workplace Learning Experience</li> <li>Industry Credential</li> <li>Dual Credit Career Pathway Course</li> <li>Students entering the military or trade apprenticeships meet minimum scores on entry tests (ASVAB or Trade Test)</li> </ul>	<p><b>Woodland students will be considered “Life Ready” when they:</b></p> <ul style="list-style-type: none"> <li>Earn a <u>high school diploma</u>.</li> <li><u>Complete 25 hours of community service</u>, AND</li> <li>Demonstrate knowledge of:               <ul style="list-style-type: none"> <li>American Government</li> <li>Financial Literacy</li> <li>Digital citizenship and technology literacy</li> <li>Healthy living</li> </ul> </li> </ul>	<p><b>Woodland students will be considered “College Ready” when they meet Option One or Option Two below:</b></p> <p>Option One: Earn a Grade Point Average of 2.8 out of 4.0 and one or more of the following academic indicators:</p> <ul style="list-style-type: none"> <li>Advanced Placement Exam (3+)</li> <li>Advanced Placement Course (A, B or C)</li> <li>Dual Credit College English and/or Math (A, B or C)</li> </ul> <p>Algebra II Advanced Algebra (A, B or C)</p> <p>Option Two: Earn a Grade Point Average of 2.8 out of 4.0 and Meet Standardized Testing Benchmarks below (minimum score)</p> <ul style="list-style-type: none"> <li>SAT Exam: Math (530) Reading and Writing (480)</li> <li>ACT Exam: English (18) Reading (22) Science (23) Math (22)</li> <li>College Readiness Placement Assessment (i.e. Accuplacer)</li> </ul>	<p><b>Woodland students will be considered “4-year college ready” if they:</b></p> <p>Earn a Grade Point Average of 3.2 out of 4.0 or higher and all of the following Academic and Testing Benchmarks below:</p> <ul style="list-style-type: none"> <li>Earn One Credit in Quantitative Mathematics in Senior Year, Algebra II or above. (A or B)</li> <li>Earn One Credit in AP or College level Science in Senior Year. (A or B)</li> <li>2 credits of World Language or American Sign Language</li> <li>2 credits of visual, fine or performing arts -or- 1 Arts and 1 Academic elective credit</li> <li>SAT Score 1100 (combined) or ACT Score 23 (Composite)</li> </ul>
<p><b>Though not clearly and easily measured, the following skills and dispositions are identified as key to success in life and career.</b></p>			
<p><b>Skills: Life Ready Skills (NSBA)</b></p> <ul style="list-style-type: none"> <li>Dependability and Reliability</li> <li>Adaptability &amp; Trainability</li> <li>Critical Thinking</li> <li>Decision Making</li> <li>Customer Focus</li> <li>Teamwork</li> </ul>		<p><b>Dispositions/Personal Skills</b></p> <ul style="list-style-type: none"> <li>Self-awareness</li> <li>Self-management</li> <li>Growth-Mindset</li> <li>Grit</li> <li>Relationship Skill</li> </ul>	
<p><b>Additional Factors that Contribute to College Success</b></p> <ul style="list-style-type: none"> <li>Earning As, Bs, Cs in High School Courses;</li> <li>FAFSA Completion;</li> <li>Enrollment in career pathway course sequence;</li> <li>College Academic Advising;</li> <li>Participation in College Bound Bridge Programs;</li> <li>Senior year math class;</li> <li>Completion of a math class after Algebra II.</li> </ul>			

