



The **Business** of Education 22.5

Revitalization towards Best-in-Class Performance



School District of Beloit

KCMG International LLC

By: Kathleen Cooke PhD.,

Michael Gallagher

December 18, 2019

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SDB Revitalization Task Force

- ❑ Welcome – Dr. Stanley Munro
- ❑ Introductions



New VISION Statement:

*“Preparing and inspiring **EVERY** student to succeed in life, and contribute to an ever-changing world.”*

[SDB School Bd., Aug. 2019]

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Barack Obama's 2011 State of the Union address, and _____
challenge to education...

*“We know what it takes to compete for the jobs and industries of our times. We need to **out-innovate, out-educate** and **out-build** the rest of the world.”*





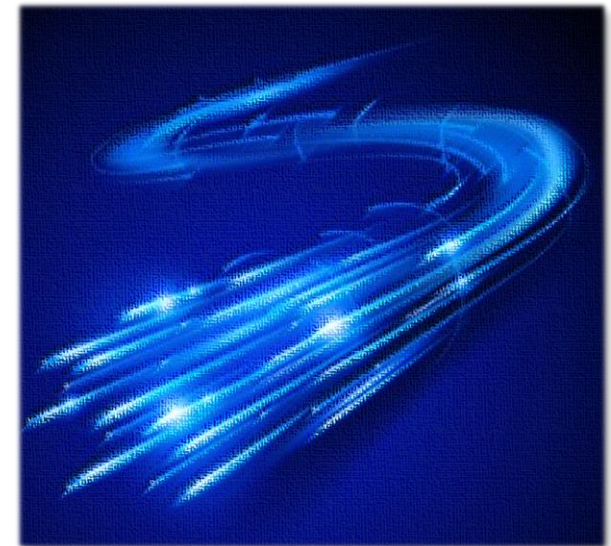
This is a **TURN-AROUND**... *not a start-up*.
It's serious work, for serious people.

- ✓ How do we **optimize** business performance?
- ✓ How do we create the best **optics** through which the community views our business? **Optics affects brand.**
- ✓ As a business... an educational product business..., **what should we be spending our time on? What's our FOCUS?**

op-tics /äptiks/

(typically in political context) the way in which an event or course of action is perceived by the public.

"The issue itself is secondary to the optics of the Democrats opposing this administration in a high profile way."



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The Big Picture... education motto “it’s all about the kids.” *From the Investors’ Viewpoint, it’s BIGGER and BROADER than that.*

Traditional Financial Def.:
ROI = [benefit – cost]/cost



There are those who argue that students are not INVESTORS... Colleges with Best **ROI** for 2016 [30 yr return] are... *Cal Tech is #1 VALUE.* Source: “Payscale College ROI Report”, PayScale (2016).

Investors w/ **ROI** Expectations

- ☒ **Students**
- ☐ Staff
- ☐ Business and Community Leaders
- ☐ Local Taxpayers
- ☐ State

ACCOUNTABLE

Management w/ **ROI** Mandate

- ❖ Superintendent
- ❖ School Board
- ❖ Administrative Team

Graphic Source: “Cool New Cost Effectiveness Tool...”, by Andrew Brodsky; Brodsky Research (2015).

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2030 Thinking

- ☐ 8% vs. 80%
- ☐ Diversity of thought... compromise... negotiation to win/win... collaboration.
- ☐ College or career ready.
- ☐ Robot-proof kids.
- ☐ Equal Educational *Achievement* Opportunity.
- ☐ Doing the right things.
- ☐ What are you [Board/Admin./Staff/Community] prepared to do about Achievement, Excellence and Equity?



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The Bigger Picture... education motto **“it’s all about the kids.”** *From the Investors’ Viewpoint, it’s BIGGER and BROADER than that.*

It’s not “all about the kids”, **it’s about ALL of the kids.**
Education and care and **hope** for ALL of the kids, in the WI public school *system...* and schools across the US.



*That’s the mandate and mission of Public Education... that’s the **VALUE** statement... that’s what makes the ‘**product**’ **unique** and sets it apart.*



☑ *Embrace that...*

☑ *Sell that ‘**product**’ to your Investors*



By the Numbers... WI DPI data
349,545 children in poverty

STUDENTS (2018-19)

Student Enrollment – 858,833

High Schools	261,218
Middle Schools	187,432
Elementary Schools	410,183

Demographics

Students with Disabilities	14.0%
English Learners	6.0%
Economically Disadvantaged Students	40.7%

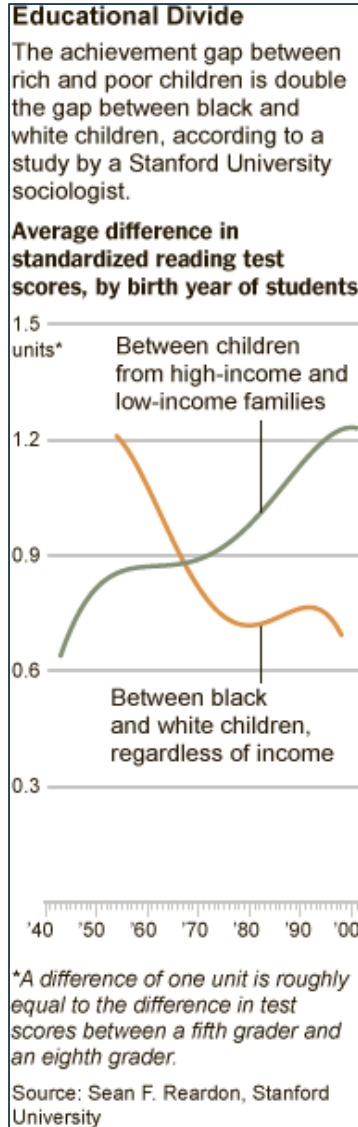
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“More than half of US public school students live in poverty”

Southern Education Foundation Report, 2013

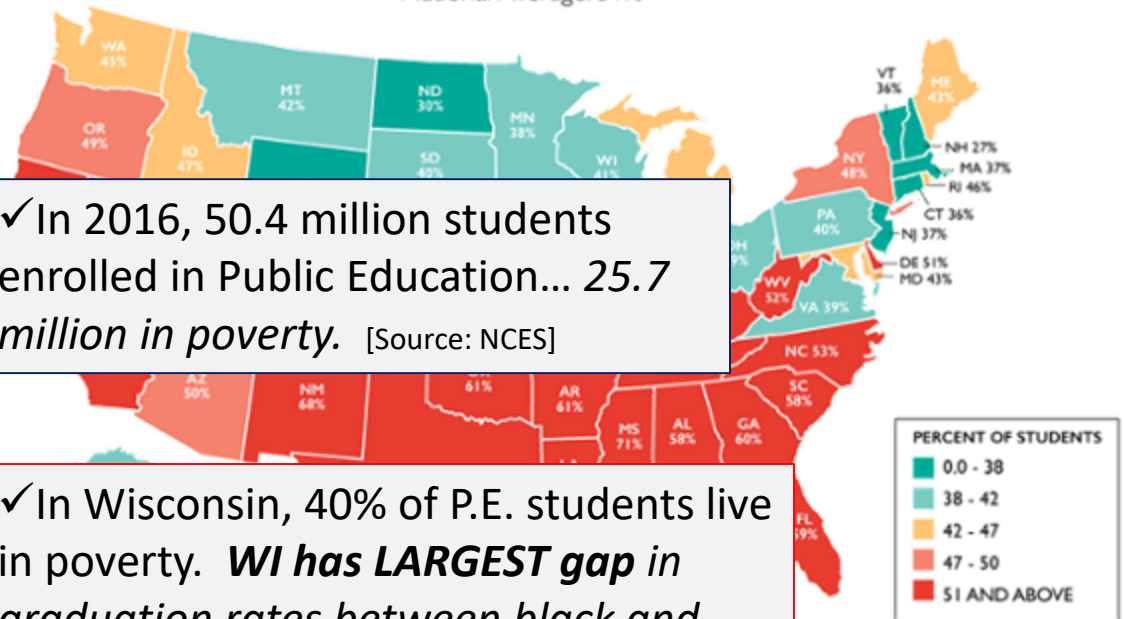


PERCENT OF LOW INCOME STUDENTS IN U.S. PUBLIC SCHOOLS 2013

National Average: 51%

✓ In 2016, 50.4 million students enrolled in Public Education... 25.7 million in poverty. [Source: NCES]

✓ In Wisconsin, 40% of P.E. students live in poverty. **WI has LARGEST gap in graduation rates between black and white students in U.S.** [Source, 'Gap': US Dept. of Education (2014)]



EDUCATION.ORG
Source of Data

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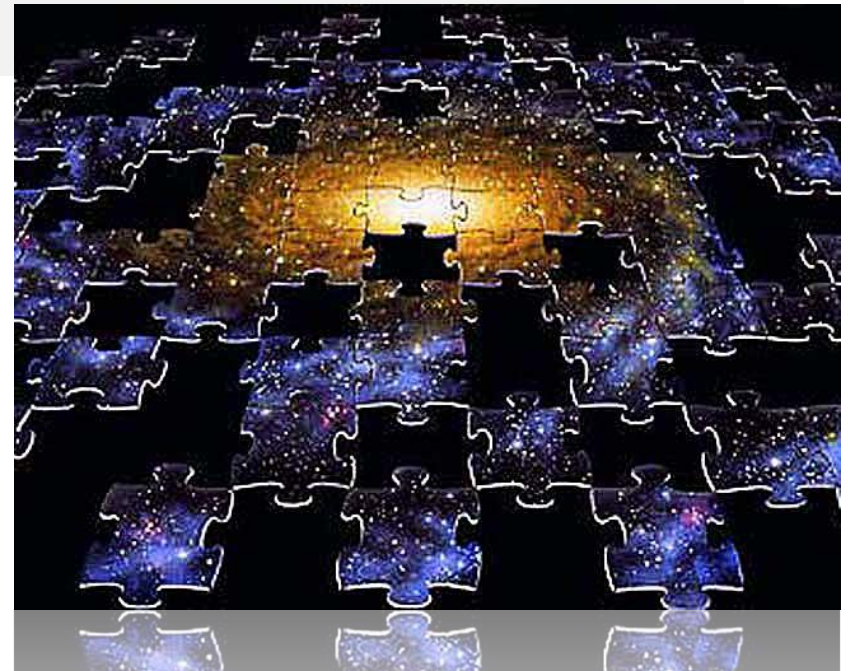


8% vs. 80%... only 8% of children in poverty graduate from 4-yr. college

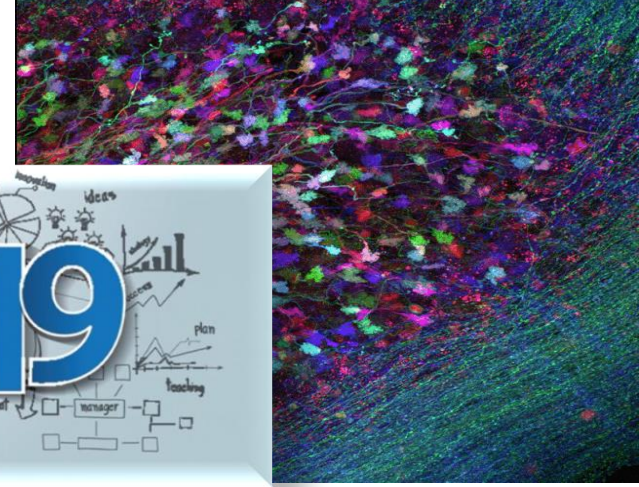
✓Do the math... 8% of 25.7 million [Pub. Ed. kids in poverty] equals 2 million. ***That leaves almost 24 million who won't graduate from a 4-yr. college.***



Source: "Measuring How We Measure Impact", Social Solutions. July 2016.



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2030 Thinking

Q: What is it?

A: “We are living through a fundamental transformation in the way we work. Automation and ‘thinking machines’ are replacing human tasks, changing the skills that organizations are looking for in their people. Businesses will innovate to create personalization and find new ways to serve these niches.”

[Source: ‘Workforces of the future: the competing forces shaping 2030’, PwC United Kingdom.]

Q2: **What’s the context to Public Education?**

Q3: If a child began kindergarten in 2018, what year would the child graduate from high school?

A: **2030**

“We should remember that intellectual complacency is not our friend and that learning – not just new things but new ways of thinking – is a life-long endeavor.” Bill Shepherd, PwC Global



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To maintain, and expand, the current US workforce for economic prowess... businesses will need to fill pipeline of workers with the best candidates... home grown *or from other countries*

- In 2010, **16% of US workforce made up of foreign-born talent...** that's 1 in 6... will be 1 in 4 if birth rates don't increase. Population aging...
- Google's Thomas Frey claims that **by 2030, 2 billion present jobs will not exist.** Low-level jobs will be done by **robots.** Needed will be critical thinkers and problem solvers.
- In those **15 yrs, internet will be completed.** **Knowledge will double every 12 hrs.** How do we teach children to be life-long learners, unlearners and re-learners in the context of **exponential data dump?**

2030

Source (below): TurboSquid



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Equal educational opportunity.

❑ Premise: **ALL kids go to college...** *be prepared to have the choice to do so.*

Q: What are the implications... comparing 'college or career ready' tracks?

➤ **European experience and Stanford Study**... “failure to send children to college, and into vocational education and jobs early instead, causes societal problems when persons are turned out of jobs when they are 50 yrs old... strain on society with increase in end-of-life costs and governmental assistance”. [Source: “The Trouble with Trade School”, by David Leonhardt; NY Times. July 2017]



“The largest problem of skills in the U.S. today isn’t a shortage of young workers with specific competencies... instead it is a need for more general cognitive skills that give workers the ability to adapt to new circumstances and new jobs.”

[Source: Stanford professor and researcher Eric Hanushek; form “German-Style Apprenticeships Simply Can’t Be Replicated”. Wall Street Journal, June 18, 2017.]

 **Reality:** High school graduates need to be able to **RE-INVENT** themselves.



Wisconsin Key Findings

"In the 2018 Wisconsin graduating class, 68,000 graduates (100%) took the ACT test with a Composite score average of **20.5**. This compares to 46,870 (73%) with an average of 22.2 in 2014.

Nationally, 55% of 2018 graduates took the ACT with an average Composite score of **20.8**."

Source: "The Condition of College and Career Readiness 2018", ACT, Inc. 2018.

Beloit ACT Scores Trending

2014...	19.6
2015...	19.4
2016...	16.9
2017...	17.0
2018...	16.7



Beloit – College Readiness Trends



-20%

below state average. [16.7 vs. 20.5]



Source: WISEdash Public Portal, Wisconsin Department of Public Instruction [DPI].

THE CONDITION OF COLLEGE AND CAREER READINESS NATIONAL 2018



ACT

Source: 'Condition of College and Career Readiness 2019' by ACT Research. October 2019.

Direct link between underperforming SDB middle schools, and an ave. **16.7** ACT [2018]

TABLE 2. ACT Scores for Admission to Wisconsin Colleges and Universities.

College/University	Composite 25%/75%
Beloit College	24/30
MSOE	25/30
UW Eau Claire	22/26
UW Green Bay	20/25
UW La Crosse	23/27
UW Milwaukee	20/25
UW Oshkosh	20/24
UW Platteville	21/26
UW Madison	27/31

[Source: 'ACT Scores for Admission to Wisconsin Colleges

"The study provides sound evidence of the link between students' coursework and their achievement... and it supports policy initiatives that encourage schools to offer more rigorous curriculum and to encourage more students to take higher level courses." [Source: 'Impact of High School Students' Coursework on Their ACT Scores'. Intersect/Iowa DOE]



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Beloit ACT Scores Trending

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DPI 2018-19 Report Card

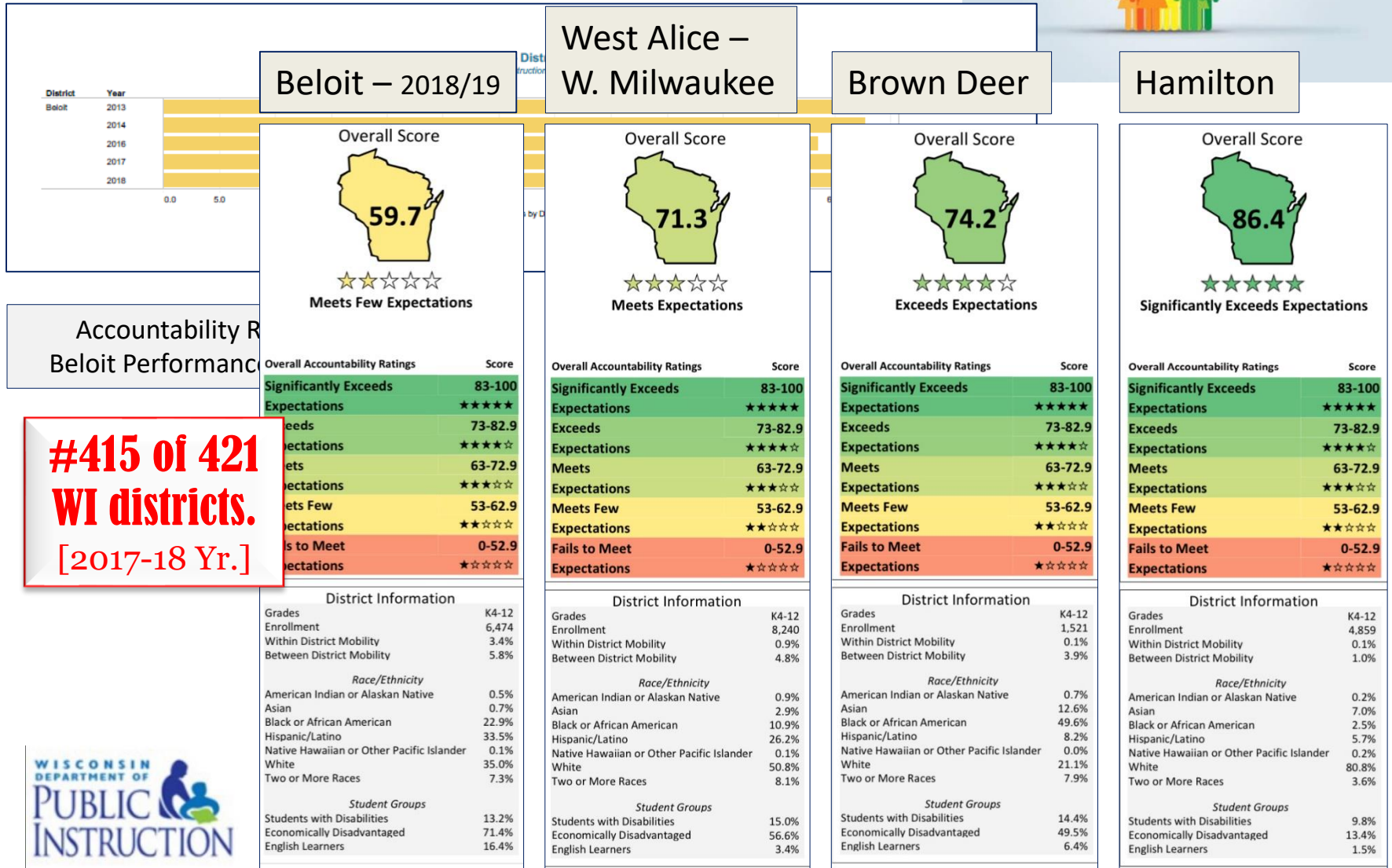
BELOIT District ☆☆ Meets Few

Converse	☆☆☆	Meets
Gaston	☆☆☆	Meets
Hackett	☆☆☆☆	Exceeds
Merrill	☆☆	Meets Few
Robinson	☆☆☆☆	Exceeds
Todd	☆☆☆	Meets
Aldrich	☆☆	Meets Few
Cunningham	☆☆☆	Meets
Fruzen	☆	Fails
McNeel	☆	Fails
Memorial HS	☆☆☆	Meets

WISCONSIN
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PUBLIC
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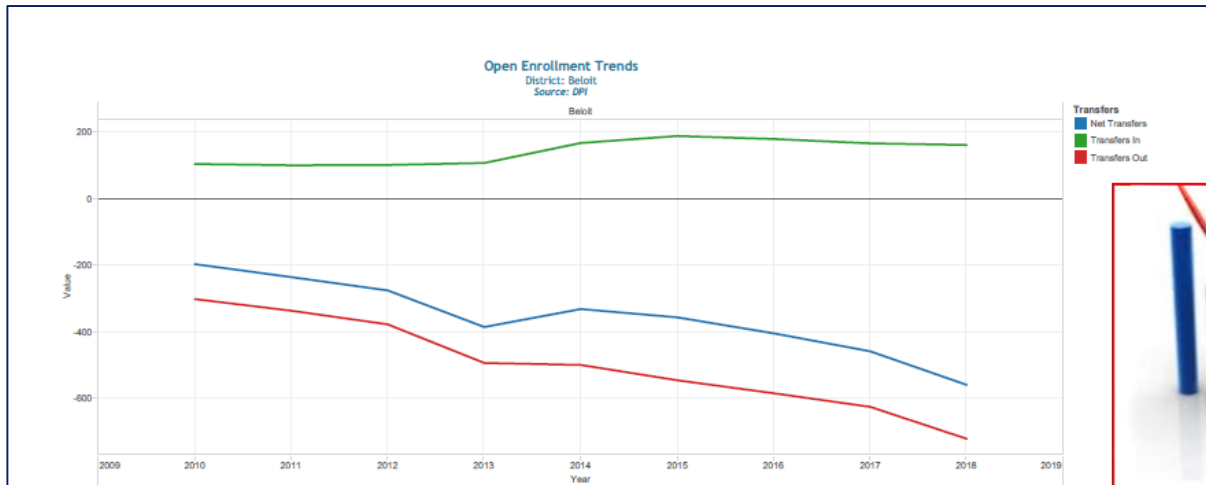
Source:
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Open Enrollment Trends Beloit
559 Students OUT NET [2018]

Declining Enrollment②
[-642 students .. 9%.. in 5 yrs.]
7116 students in '13/14; 7022
in '15/16; 6943 in '16/17;
6823 in '17/18; **6474 in**
'18/19. [DPI]; ?? in '19/20 and
beyond.



Declining Enrollment Spiral... district enrollment loss can lead to declines in school quality. [Source: CRPE.]

Yearly Cost to District

$$\text{\$7,055} \times 559 = \text{\$3.94M/yr [2017-18]}$$

Source: 'Open Enrollment Funding: Basic Open Enrollment Transfer Amount', Wisconsin DPI. Figure for 2017-2018 is \$7,055/student.

"Corporations that fail... failed to change and innovate." [Source: '50 Examples of Corporations That Failed to Innovate', by Katrina Aasland; Valuer. November 2018.]

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WASDA Legal Conference and the NJ Court Case.

Facts of Case: Disabled [disadvantaged] child and family sued school district...

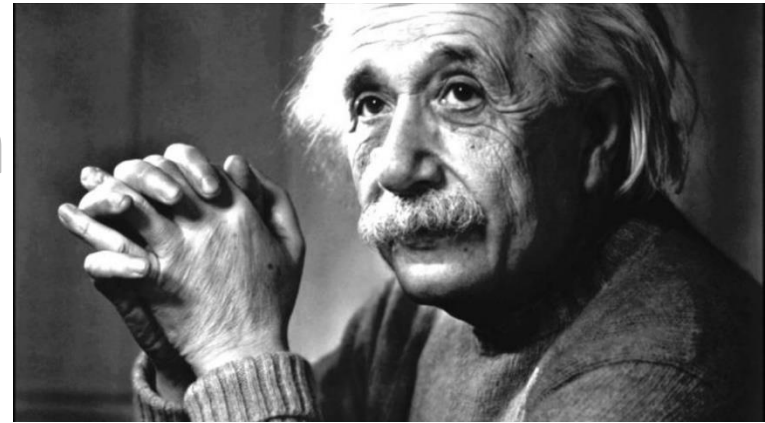
Lawyer argued district had to do more than provide 'equal educational opportunity' & experience for the child...

That it had to provide an 'equal educational *achievement opportunity*'...

Ruling: The child and family prevailed.

Impact for schools... equal educational *achievement* opportunity for ALL children, across ALL districts... **COSTS?**

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“The problem of lost Einsteins”¹

- Term... even highly talented low-income children rarely become inventors or entrepreneurs.
- Children don’t get opportunity to “grow up and devise scientific breakthroughs or new products that would benefit society.”
- Cause: **Impoverished students who excel in school are much less likely than affluent children to take classes that challenge them.**
[Source: “Is there a Gifted Gap – Gifted Education in High Poverty Schools”; Thomas Fordham Institute; Jan. 2018]
- **Students in low-poverty schools are more than twice as likely to participate in these programs... 6.1% high-poverty to 12.4% of students in low-poverty schools enter said programs.**
- **“There is sound evidence of the link between students’ coursework and their achievement... supports initiatives that encourage schools to offer more rigorous curriculum, and to encourage more students to take higher level courses.”** [Source: ‘Impact of High School Students’ Coursework on Their ACT Scores’, Intersect/Iowa Dept. Of Education.]

¹Source: “The problem of lost Einsteins”, David Leonhardt; New York Times. February 1, 2018.

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We are Living in Exponential Times...



Market scan on Public Education product... 5 topics

- **3 to 4 Yrs...** ave. tenure for Superintendent. **9.7 years** for Fortune 500 Company CEO's... Impact on stability in districts, and indicator of achievement gains
- **3 to 4 Yrs...** ave. employee tenure. 13 to 15 jobs over career. How do we teach for that?
- **1 to 2 Yrs...** current rate that **knowledge is doubling**. 12 hrs when internet gets built out by 2030. **UNLEARNING**, the new 'learning' skill
[See: "Why the Problem with Learning is Unlearning", by Mark Bonchek, Harvard Bus. Review. Nov 2016]
- **8% vs. 80%...** only 8% of P.E. kids in poverty will graduate from college. 24M children, based on 2016 50M enrolled.
- **8 out of 10...** folks who don't have kids in school. Greatest segment that will vote in referendums. How do we keep them engaged?

Google's top futurist Thomas Frey claims... "Humanity will change more in the next 20 years than in all of human history."

Source: "Don't Get Blindsided by the Future", by Thomas Frey (Dec 2013)

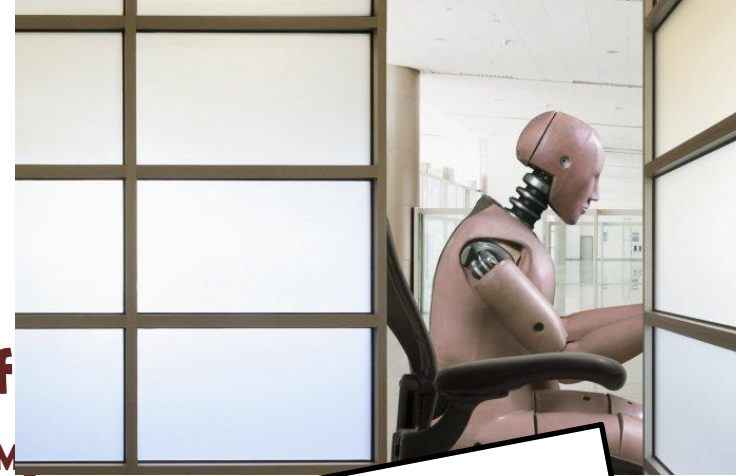
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FUTURE SHOCK

- Nanotechnology doubling every 2 yrs.
- Clinical knowledge every 18 months
- Ave. human knowledge every 13 mo.
- **Build-out of internet → doubling of knowledge every 12 hrs.** [Source: IBM]



'Future Shock', by Alvin Toffler (1970)

By 2030, futurist Frey predicts...

- Internet as we know it will disappear... run seamless with our lives... like breathing.
- **2 billion jobs to disappear... replaced by jobs not yet created.**
- 50% of traditional colleges will close.
- Replaced by new 'education industry', where Micro-Colleges give 6-month 'degrees' for apprenticeship and training to switch jobs.

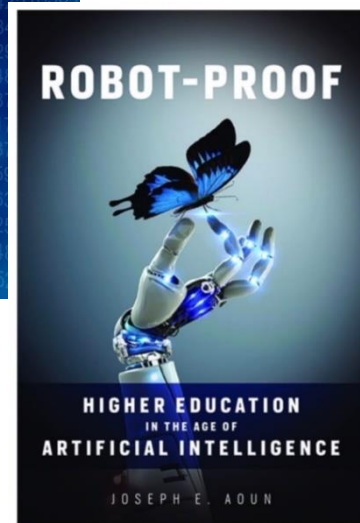
Robot-proof kids

Northeastern Univ. Pres. Joseph Aoun

Role of education in AI world is

"to fill needs in society that even the most sophisticated artificial intelligence cannot."

Source: Buckminster Fuller (1895-1983),
American architect, systems theorist



FORBES Q: *How do you believe AI will impact higher education and the role of the teacher and student in the future?*

Aoun Response: “While economists are focused on the expected job loss attributed to artificial intelligence – some recent studies suggest that as much as ***half of all U.S. jobs are at risk during the next 20 years*** – no one is talking about the implications for higher education. We have a responsibility to our students to be thinking about how to prepare them for the coming tsunami of smart machines and how it will transform the future of work.

“To make people robot-proof, higher education needs to change... We will need to re-envision the curriculum, invest in experiential education, and put lifelong learning at the heart of what we do. AI can serve as an enabler, assisting students in their learning journey through innovations such as adaptive learning that facilitate knowledge acquisition... ***The context you learn from having global experiences and forging human connections will be the differentiators that make you robot-proof.***”

“A generation (30 yrs.) ago, the half-life¹ of a skill was about 26 years. Today, it’s about four and a half years and dropping.” — Indranil Roy Ph. D, Northwestern Univ.

¹Half-life... time req’d for any specified property to decrease by half.

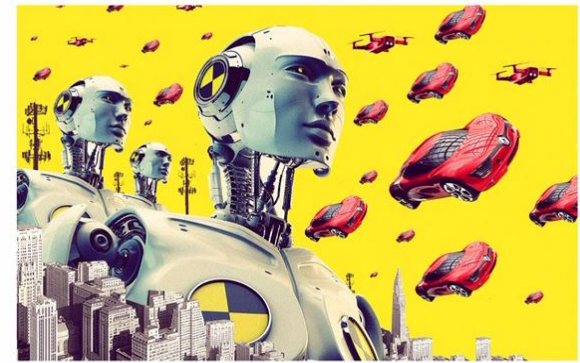
Aoun’s ‘Robot-proof’....

“The best thing students can do to be prepared for the jobs of the future is to be grounded in *humanics*... the curriculum of a ‘Robot-proof-education’.

- ❑ “Humanics prepares students to perform the beings can do.
- ❑ “Integrates technical literacies, such as coding, human literacies such as creativity, ethics, culture, entrepreneurship’.
- ❑ “An education in humanics teaches us how to performing technologies while accentuating our strengths. This empowers us to do what even machines cannot.”

Source (above): “Northeastern University President Joseph E. Aoun: How To Be ‘Robot-Proof’”, by Dan Schwabel; FORBES. Nov. 24, 2017.

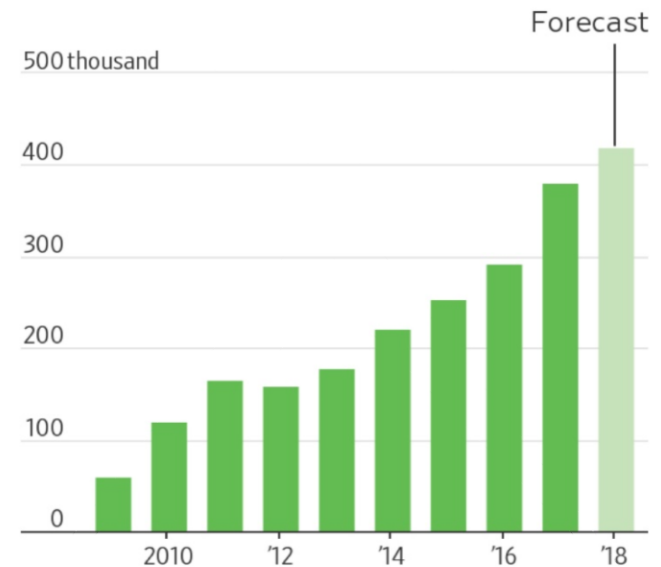
Source (right): “Inside the New Industrial Revolution”, by Christopher Mims; The Wall Street Journal. Nov. 12, 2018.



Source, graphic: The Wall Street Journal

Rise of the Robots

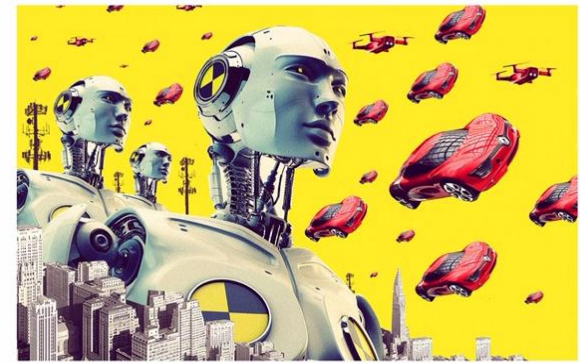
Estimated global shipments of industrial robots



Source: International Federation of Robotics

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Source, graphic: The Wall Street Journal

Aoun’s ‘Robot-proof’....

“The best thing students can do to be prepared for the jobs of the future is to be grounded in *humanics*... the curriculum of a ‘Robot-proof-education’.

❑ “Humanics prepares students to perform the future jobs that only human beings can do.

In a 2018 FORBES article ‘*The Skills You Need to Succeed in 2020*’, the World Economic Forum reports that you need the **ten skills listed below to succeed in 2020:**

- | | |
|------------------------------|-----------------------------------|
| 1. Complex problem solving. | 6. Emotional intelligence. |
| 2. Critical thinking. | 7. Judgement and decision making. |
| 3. Creativity. | 8. Service orientation. |
| 4. People management. | 9. Negotiation. |
| 5. Coordinating with others. | 10. Cognitive flexibility. |

Source: ‘*The Skills You Need To Succeed In 2020*’, by Avil Beckford, FORBES. Aug. 6, 2018.

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“College and career ready means that students graduate from high school prepared to enter and succeed in postsecondary opportunities – whether college or career – *without need for remediation...*

To be **college and career ready**, students must graduate with the knowledge, skills, and dispositions necessary to succeed.”

[Source: ‘Overview: State Definitions of College and Career Readiness’, ccrscenter.org.]

- | | |
|------------------------------|-----------------------------------|
| 1. Complex problem solving. | 6. Emotional intelligence. |
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Most common options for life after high school...

- | | |
|-----------------------------------|----------------|
| • Four-Year College or University | • The Military |
| • Two-Year College | • Workforce. |
| • Trade and Certificate Programs | |

Source: ‘Achieve, Rising to the Challenge: Views on High School Graduates’, Preparedness for College. July 2014.



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Source: University of Kent

Q: Why post-secondary education... especially when considering requirements in a '2030 and beyond world'?

A1: A traditional 4-year college or university.. and other post-secondary education... prepares your child for a wide range of professional careers. Research shows the more years of education a child has, the better. [Source: Brookings]

☆A2: “Education beyond high school is critical to advancing beyond low-wage jobs, as reams of data and experience have shown. Those with only a high school diploma have higher unemployment rates and lower earnings than their counterparts with more education.” [Source: *‘Millions of young adults have entered the workforce with no more than a high school diploma’*, by Martha Ross and Nicole Bateman. Brookings Institute, January 31, 2018]

A3: It continues to **develop and hone a child’s critical thinking** about a wide array of world subjects.

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Education, unemployment and earnings.

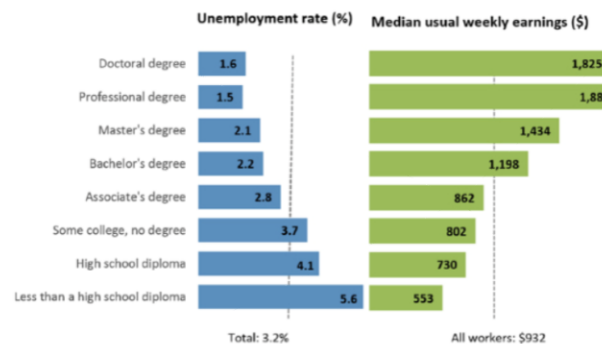
Unemployment rates and earnings by educational attainment

Table 5.1 Unemployment rates and earnings by educational attainment, 2018

Educational attainment	Unemployment rate (%)	Median usual weekly earnings (\$)
Doctoral degree	1.6	1,825
Professional degree	1.5	1,884
Master's degree	2.1	1,434
Bachelor's degree	2.2	1,198
Associate's degree	2.8	862
Some college, no degree	3.7	802
High school diploma	4.1	730
Less than a high school diploma	5.6	553
Total	3.2	932

Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: Current Population Survey, U.S. Department of Labor, U.S. Bureau of Labor Statistics

Unemployment rates and earnings by educational attainment, 2018



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.
Source: U.S. Bureau of Labor Statistics, Current Population Survey.

[Source: 'Millions of young adults have entered the workforce with no more than a high school diploma', by Martha Ross and Nicole Bateman. Brookings Institute, January 31, 2018]

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un•learn /ən'lərn/ verb

Discard (something learned, especially a bad habit or false or *outdated information*) from one's memory.

"The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn."

-Alvin Toffler

American writer 'Future Shock', futurist,
digital revolution scholar [1928-2016]



Experts say that 'unlearning', not learning, is the most important thing... and much more difficult to do than learning. *"Today's digital native will be tomorrow's digital dinosaur, if they are unable to unlearn,"* says author Peter Evans-Greenwood.

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un•learn /ən'lərn/ verb

Discard (something learned, especially a bad habit or false or outdated information) from one's memory.



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According to *Harvard Business Review* article, '**unlearning**' has three parts:

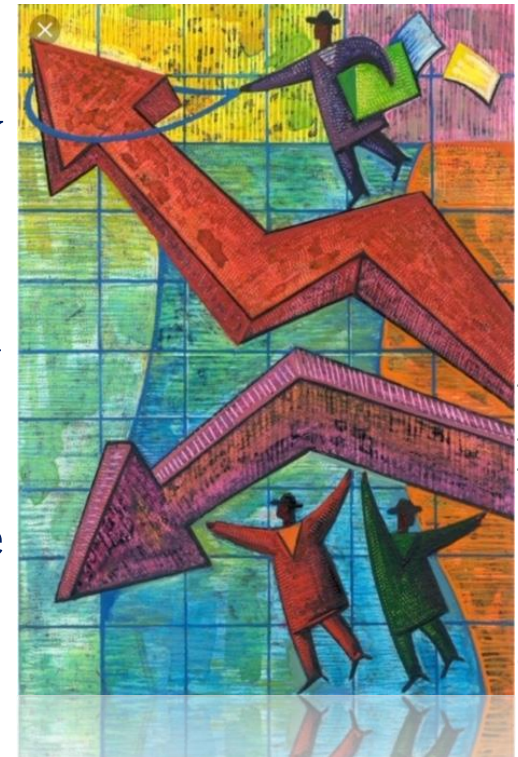
- **"First**, you have to recognize that the old mental model is no longer relevant or effective.
- **"Second**, you need to find or create a new model that can better achieve your goals.
- **"Third**, you need to ingrain the new mental habits."

Source: 'Why the Problem with Learning is Unlearning', by Mark Bonchek, Harvard Business Review. Nov. 3, 2016.

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5 Takeaways:

1. **SDB** is about the **education of every child**, every subgroup... *not a select 'auditioned' few.*
2. **Recorded data now doubles every 13 months**... every 12 hrs by 2030. Implications for education?
3. **2030 thinking** demands that every high school grad know how to **re-invent** him or herself... they will need to know how to **'learn, unlearn and relearn'** info, *without reservation.*
4. The **revitalization** of this school district is about a **turn-around process** *that will mandate change and innovation.* All options reviewed.
5. **Every high school grad has to be prepared**... have the credentials... **to go to a 4-year college**... *whether that is the child's pathway or not.*

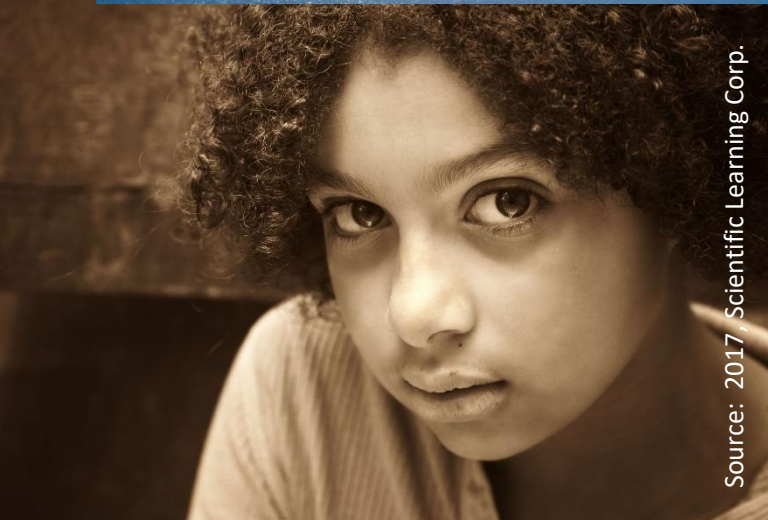




LEADERSHIP

Source: "Bamboo Strong: Cultural Intelligence Secrets..." et al, by David Clive Price. 2016

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Source: 2017, Scientific Learning Corp.



RESOLVE

**What are you
prepared to do?**

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“Only three things happen naturally in organizations:

**FRICTION, CONFUSION
AND UNDERPERFORMANCE**

Everything else requires **leadership.**”

Peter F. Drucker



Thank you.



Source (Graphic): “The Principles of Strategic Planning - Part 1: Strategy vs. Tactics”, Foley Tan Group. June 2014.

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Daughters Isabel, Dorit and Andrea.