Building Education Systems for Quality and Equity: Lessons from Around the World
Elements of a Teaching Quality System

- Preparation
- Recruitment
- Induction & mentoring
- School design, funding, curriculum, assessment
- High-quality teaching
- Career & leadership development
- Ongoing professional learning
- Appraisal & feedback
Compared to Those in Top-Performing Countries, US Teachers ....

- Are less well compensated
- Have less support for their preparation
- Are less likely to receive mentoring
- Have less time for and access to high-quality professional learning
- Are less likely to receive feedback from peers
- Are unlikely to experience expanded career responsibilities or chances to share expertise
- Are less likely to be involved in collaborative planning around curriculum & assessment
US teachers teach larger classes on average.

- **US**: 27
- **TALIS Average**: 24
U.S. Teachers Teach the Most Instructional Hours

<table>
<thead>
<tr>
<th>Country</th>
<th>Hours spent on teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>27</td>
</tr>
<tr>
<td>Chile</td>
<td>22</td>
</tr>
<tr>
<td>Alberta (Canada)</td>
<td>20</td>
</tr>
<tr>
<td>Brazil</td>
<td>19</td>
</tr>
<tr>
<td>Mexico</td>
<td>18</td>
</tr>
<tr>
<td>Abu Dhabi (United Arab Emirates)</td>
<td>17</td>
</tr>
<tr>
<td>Estonia</td>
<td>15</td>
</tr>
<tr>
<td>Portugal</td>
<td>15</td>
</tr>
<tr>
<td>Finland</td>
<td>15</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>15</td>
</tr>
<tr>
<td>England (United Kingdom)</td>
<td>15</td>
</tr>
<tr>
<td>Croatia</td>
<td>15</td>
</tr>
<tr>
<td>Latvia</td>
<td>15</td>
</tr>
<tr>
<td>Flanders (Belgium)</td>
<td>15</td>
</tr>
<tr>
<td>Iceland</td>
<td>15</td>
</tr>
<tr>
<td>Denmark</td>
<td>15</td>
</tr>
<tr>
<td>Korea</td>
<td>15</td>
</tr>
<tr>
<td>Spain</td>
<td>15</td>
</tr>
<tr>
<td>Poland</td>
<td>15</td>
</tr>
<tr>
<td>France</td>
<td>15</td>
</tr>
<tr>
<td>Australia</td>
<td>15</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>15</td>
</tr>
<tr>
<td>Serbia</td>
<td>15</td>
</tr>
<tr>
<td>Israel</td>
<td>15</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>15</td>
</tr>
<tr>
<td>Japan</td>
<td>15</td>
</tr>
<tr>
<td>Sweden</td>
<td>15</td>
</tr>
<tr>
<td>Italy</td>
<td>15</td>
</tr>
<tr>
<td>Singapore</td>
<td>15</td>
</tr>
<tr>
<td>Malaysia</td>
<td>15</td>
</tr>
<tr>
<td>Netherlands</td>
<td>15</td>
</tr>
<tr>
<td>Cyprus</td>
<td>15</td>
</tr>
<tr>
<td>Romania</td>
<td>15</td>
</tr>
<tr>
<td>Norway</td>
<td>15</td>
</tr>
<tr>
<td>Average</td>
<td>19</td>
</tr>
</tbody>
</table>

Note: The chart illustrates the average instructional hours spent by teachers in various countries. The United States has the highest instructional hours at 27 hours, followed by Chile at 22 hours, and so on.
US Teachers Have Far Less Planning & Collaboration Time

Planning minutes per teaching hour

- Croatia
- Romania
- Japan
- Singapore
- Czech Republic
- Cyprus
- Bulgaria
- Norway
- Serbia
- Denmark
- Korea
- Portugal
- France
- England (United Kingdom)
- Australia
- Sweden
- Iceland
- Slovak Republic
- Malaysia
- Average
- Abu Dhabi (United Arab Emirates)
- Spain
- Latvia
- Estonia
- Flanders (Belgium)
- Netherlands
- Poland
- Italy
- Alberta (Canada)
- Israel
- Brazil
- Mexico
- United States
- Finland
- Chile

Average: 22
United States: 16
Chile: 13
OECD Findings: Collaboration drives improvement

The more frequently teachers participate in collaborative practices with their colleagues, the higher their level of self-efficacy and job satisfaction. And the more likely they are to use innovative practices.
Assembly line vs. Quality work circle
Compensation

- U.S. teachers make about 20% less than other college graduates; 30% by mid-career.
- Salaries have lost ground since the 1990s
- Average starting salaries in 2013 ranged from $27,000 (MT) to $44,000 (AK)
- In more than 30 states, a mid-career teacher heading a family of 4 is eligible for several forms of government assistance
Preparation and early mentoring strongly influence teacher effectiveness and retention:

- Teachers who are unprepared leave within a year at 2-3 times the rates of those who are well-prepared.
- Those who receive high-quality mentoring and induction stay at twice the rate of those who receive little.

Funding for both has declined:

- The debt load for preparation has increased.
- Only about 2/3 of teachers receive comprehensive preparation before entering.
- Fewer teachers receive mentoring + principal support (down from 75% in 2008 to 59% by 2012).
Teaching Conditions

- U.S. teachers have more teaching hours and less planning time than others in the world
- Only 15% of teachers report collaborative work environments, down from 30% in 2000
- Resources for teaching declined during the recession; most states are still spending less in constant dollars than in 2007
- Growth in child poverty, homelessness, and trauma makes teaching more challenging
Teacher shortage keeps area schools scrambling
Washington not alone in hunt for teachers, new report says
Oklahoma school districts look to fill 500 teacher vacancies

Teacher shortage at public schools
Fewer qualified applicants certified teaching positions

Florida facing teacher shortages in many districts as new school year begins

In Utah, schools can now hire teachers with no training whatsoever
RPS dealing with teacher shortage as first day of school looms

Teacher, staff shortage looms as school begins
“A new Maryland teacher staffing report just released Tuesday shows every district in the state is dealing with a shortage.

“The results from the teacher staffing report comes just a couple of months into the new school year. What it shows, in part, is a snapshot of frustration. The Maryland State Board of Education admits certified teachers are just hard to come by and even harder to keep on the payroll.”
Teacher Preparation Enrollments Down Nationally

35%
Attrition Drives Shortages
Reasons Given by Teachers for Leaving the Profession

- Accountability pressures: 55%
- Administration: 43%
- Working conditions: 31%
- Family/Personal Reasons: 43%
- Retirement: 31%
- To Pursue Another Job: 31%
- Financial Reason: 18%
Teaching Attractiveness Varies Across States

- Compensation
- Turnover Rates
- Teaching Conditions
- Qualifications

Quintile

Lowest… Highest

States:
- CA
- OR
- WY
- SD
- IA
- PA
- ME
- VT
- MD
- DC
- AK
- NV
- AZ
- NM
- TX
- FL
- IN
- MS
- CO
## Teaching Attractiveness and Equity in MD

### Data are from 2012, 2013, 2014

<table>
<thead>
<tr>
<th>Indicator</th>
<th>MD</th>
<th>US Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compensation Rating</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>Starting Salary</td>
<td>$43,235</td>
<td>$36,141</td>
</tr>
<tr>
<td>Wage Competitiveness</td>
<td>75</td>
<td>74</td>
</tr>
<tr>
<td>Working Conditions Rating</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Pupil-Teacher Ratio</td>
<td>15 : 1</td>
<td>16 : 1</td>
</tr>
<tr>
<td>Classroom Autonomy</td>
<td>59%</td>
<td>77%</td>
</tr>
<tr>
<td>Collegiality Within School</td>
<td>26.9%</td>
<td>38%</td>
</tr>
<tr>
<td>Testing-Related Job Insecurity</td>
<td>15%</td>
<td>12%</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>41%</td>
<td>48%</td>
</tr>
<tr>
<td>Teacher Qualifications Rating</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>% Inexperienced Teachers</td>
<td>14.3%</td>
<td>12.6%</td>
</tr>
<tr>
<td>% Uncertified Teachers</td>
<td>3.16%</td>
<td>1.89%</td>
</tr>
<tr>
<td>Teacher Turnover Rating</td>
<td>2.5</td>
<td></td>
</tr>
<tr>
<td>Left Profession</td>
<td>n/a</td>
<td>7.7%</td>
</tr>
<tr>
<td>Left School or Profession</td>
<td>11.9%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Plans to Leave Teaching</td>
<td>10.9%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Indicator</th>
<th>MD</th>
<th>US Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of Uncertified Teachers in High- vs. Low-Minority Schools</td>
<td>11.97 : 1</td>
<td>4.05 : 1</td>
</tr>
<tr>
<td>% Uncertified Teachers in Low-Minority Schools</td>
<td>0.5%</td>
<td>0.88%</td>
</tr>
<tr>
<td>% Uncertified Teachers in High-Minority Schools</td>
<td>6%</td>
<td>3.56%</td>
</tr>
<tr>
<td>Ratio of Inexperienced Teachers in High- vs. Low-Minority Schools</td>
<td>3.75 : 1</td>
<td>1.67 : 1</td>
</tr>
<tr>
<td>% Inexperienced Teachers in Low-Minority Schools</td>
<td>6.78%</td>
<td>9.9%</td>
</tr>
<tr>
<td>% Inexperienced Teachers in High-Minority Schools</td>
<td>25.39%</td>
<td>16.56%</td>
</tr>
<tr>
<td>% Teachers of color</td>
<td>17%</td>
<td>18%</td>
</tr>
</tbody>
</table>
What Can We Learn from High-Achieving Nations?

- Preparation
- Recruitment
- Induction & mentoring
- School design, funding, curriculum, assessment
- Career & leadership development
- Ongoing professional learning
- Appraisal & feedback
- High-quality teaching
Recruitment

- Competitive recruitment based on academics and dispositions associated with teaching
  - Research orientation
  - Commitment to all children & the profession
  - Interpersonal / verbal skills
- Into a small number of programs of comparable quality and rigor
- Preparation largely or completely paid for
- Some countries also pay stipends/ salaries
Compensation / Career Development

- Salaries comparable to other professions requiring college degree
- Equitable across schools / districts
- Enhanced for teachers taking on additional responsibilities
- Career ladders in Singapore, Shanghai, and Australia / Career lattice in Ontario
- Multiple opportunities for leadership and sharing of expertise
Career Tracks in Education

- Teaching Track
  - Senior Teacher
  - Lead Teacher
  - Master Teacher
  - Principal Master Teacher

- Leadership Track
  - Subject Head / Level Head
  - Head of Department
  - Vice-Principal
  - Principal

- Classroom Teacher

- Director Track
  - Director
  - Deputy Director
  - Cluster Superintendent

- Leadership Track
  - Chief Specialist
  - Principal Specialist
  - Lead Specialist
  - Senior Specialist 2
  - Senior Specialist 1

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Fostering Teacher Growth & Development

**SUPPORTS FOR GROWTH**
- Teacher Learning and Leadership Program (TLLP)
- Annual Learning Plan (ALP) / Teacher Performance Appraisal (TPA)
- New Teacher Induction Program (NTIP)
- Initial Teacher Education (ITE) / Building Futures (BF)

**OPPORTUNITIES FOR LEADERSHIP**
- TLLP Project Leader / Team Member
- Department Head / Chair
- Board Consultant / Coach
- NTIP Mentor
- Associate Teacher
- Community of Practice Member (face to face or online)

**AUTHENTIC LEARNING**
- Inside-Out Transformation
- Student-Centered
- Collegial Involvement in Planning
  - Teacher-determined learning goals
  - Collaborative construction of knowledge

**EXCELLENCE WELL-BEING**
**EQUITY PUBLIC CONFIDENCE**
**ALL LEARNERS**
Preparation

- Guided by Professional Standards of Practice
- Research-Based and Research-Oriented
- Strong Preparation in
  - Content-Specific Pedagogy focused on 21st Century Skills
  - Learning and Development
  - Curriculum and Assessment
- Learning in Practice with Expert Mentors
Professional Teaching Schools

As in medicine and other professions, teaching schools allow teachers to see and enact best practices linked to research and theory.

Professional teaching schools support learning from expert veterans while candidates are taking tightly linked coursework. They model state-of-the-art education for students and teachers as well as opportunities for developing curriculum, new practices, and research.
“Model” Schools in Finland

3 current research projects; Recently published a book

Mentor Teachers

3 master’s degrees and PhD

Finishing PhD
Induction for Beginners

- Regularly available to all
- Guided by trained Senior / Mentor Teachers
  - In-classroom coaching
  - Curriculum and lesson planning
  - Seminars on key topics
- Reduced teaching load
- Typically 2 years // 4 years in Toronto
Professional Learning Cycle (Australia)
Professional Learning Opportunities

- Rich array of institutes, workshops, conferences “by teachers for teachers”
- Teacher and school networks
- Research grants and collaborative R&D opportunities (+publication and adoption)
- Sustained learning opportunities embedded in practice:
  - Teachers have 15-25 hours a week for planning and collaboration + paid time for professional learning
  - Teachers engage regularly in Lesson Study, Action Research, and Peer Observation and Coaching to evaluate and improve practice.
Professional Learning Opportunities that Impact Practice are:

- Focused on learning specific curriculum content
- Organized around real problems of practice
- Connected to teachers’ work with children
- Linked to analysis of teaching and student learning
- Intensive, sustained and continuous over time
  - Supported by coaching, modeling, observation, and feedback
- Connected to teachers’ collaborative work in professional learning communities
- Integrated into school and classroom planning around curriculum, instruction, and assessment
Assessment of, as, and for Learning

Assessment measures are structured to continuously improve teaching and learning.
Around the World, Teachers Collaborate in Assessment Design, Scoring, and Evaluation
Assessments
Support Teacher Learning

- As models of good instruction
- As exemplars of quality work and standards
- As diagnostic information regarding learning – especially when feedback shows actual performances, not just scores
- As a focus for professional conversation about standards, curriculum, and instruction
- As information to guide investments in professional development
The Challenge Ahead

- All of these best practices exist somewhere in the US
- Nowhere are they yet assembled together into a teaching and learning system
# Bureaucratic vs. Professional Approaches to Education

<table>
<thead>
<tr>
<th>Bureaucratic → Doing School</th>
<th>Professional → Enabling Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expertise rests at the top of system</td>
<td>Expertise rests in the classroom</td>
</tr>
<tr>
<td>Teachers have minimal skills</td>
<td>Teachers have extensive knowledge and skill</td>
</tr>
<tr>
<td>Research, tests, and texts are aimed at controlling practice</td>
<td>Research is aimed at informing practice</td>
</tr>
<tr>
<td>Decisions are made hierarchically</td>
<td>Decisions are made with colleagues based on standards of practice</td>
</tr>
<tr>
<td>Emphasis is on procedures: “Doing things right”</td>
<td>Emphasis in on what works: “Doing the right things”</td>
</tr>
<tr>
<td>Practice is standardized</td>
<td>Schools function as communities of learning</td>
</tr>
<tr>
<td>Schools function as assembly lines</td>
<td></td>
</tr>
</tbody>
</table>
This Problem Has Been Solved Before

In the 1990s, CT and NC both eliminated shortages and increased achievement by:

- Increasing and equalizing salaries
- Offering service scholarships and loans
- Raising standards for teacher preparation
- Introducing strong mentoring systems
- Offering high-quality professional development
- Training principals to support teaching
Better compensation packages:
• Competitive, equitable salaries
• Financial incentives
  ✓ Housing
  ✓ Child care

Build lasting teacher supply:
• Forgivable loans, scholarships
• High-retention preparation pathways
  ✓ Strong clinical teacher education
  ✓ Grow Your Own programs
  ✓ Teacher Residencies

Improve retention:
• High-quality mentoring
• Collegial work environments
• Administrator training

Enhance mobility:
• License reciprocity
• Pension portability

Policy recommendations