US Manufacturing
Five Challenges to Our Competitive Position

National Association of Purchasing Managers
October 14, 2014

Fred Zimmerman
University of St. Thomas
Five Challenges

- A poorly educated workforce, lacking practical work experience and often unrealistic in their expectations.
- Rising healthcare costs.
- Public sector finance.
- US education is too abstract with too little emphasis on work habits, character traits, and skills.
- Occasionally poor business management.
The evidence on competitiveness

- Problem is structural rather than cyclical.
- Variations within states exceed variations between states.
- Competitiveness not so related to hourly wages.
- Dramatic changes in society’s employment profile often reduces competitiveness.
- State-of-the-art competitiveness and broadly based and widely sought consensus are often mutually exclusive.
- Goal integration is poorly presented by political leaders.
Important Factors

- The misleading and erroneous assumption that we can improve our position with no one having to modify either their compensation or behavior.
  - Investment, sacrifice, and increased efficiency are all needed.
- The quantity of our overhead.
- The efficiency of our overhead.
- Our employment profile.
### US Wages are

<table>
<thead>
<tr>
<th>Lower than these Countries</th>
<th>Higher than these Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norway</td>
<td>Italy</td>
</tr>
<tr>
<td>Sweden</td>
<td>UK</td>
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<tr>
<td>Denmark</td>
<td>Spain</td>
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<tr>
<td>Belgium</td>
<td>Brazil</td>
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<tr>
<td>Germany</td>
<td>Hungary</td>
</tr>
<tr>
<td>Australia</td>
<td>Mexico</td>
</tr>
<tr>
<td>France</td>
<td>Poland</td>
</tr>
<tr>
<td>Korea in some industries</td>
<td></td>
</tr>
</tbody>
</table>
More practical causes of slippage

Massive debt.
Major employers losing prominence.
Ill-prepared workers.
Inept management in finance, business, & govt.
Weak education system.
Retirement systems devoid of reality.
Too many people in overhead.
Other malfunctions.
US Education

K-12 Spending Per Student in the OECD

Source: OECD, 2009 Education at a Glance
Produced by: Veronique de Rugy, Mercatus Center at George Mason University
US Test Scores are Low

<table>
<thead>
<tr>
<th>Science</th>
<th>Math</th>
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</thead>
<tbody>
<tr>
<td>FINLAND</td>
<td>563</td>
</tr>
<tr>
<td>HONG KONG</td>
<td>542</td>
</tr>
<tr>
<td>CANADA</td>
<td>534</td>
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<tr>
<td>TAIWAN</td>
<td>532</td>
</tr>
<tr>
<td>JAPAN</td>
<td>531</td>
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<tr>
<td>ESTONIA</td>
<td>531</td>
</tr>
<tr>
<td>NEW ZEALAND</td>
<td>530</td>
</tr>
<tr>
<td>AUSTRALIA</td>
<td>527</td>
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<tr>
<td>NETHERLANDS</td>
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<td>SOUTH KOREA</td>
<td>522</td>
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<tr>
<td>LIECHTENSTEIN</td>
<td>522</td>
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<td>SLOVENIA</td>
<td>519</td>
</tr>
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<td>GERMANY</td>
<td>516</td>
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<tr>
<td>UNITED KINGDOM</td>
<td>515</td>
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<tr>
<td>CZECH REPUBLIC</td>
<td>513</td>
</tr>
<tr>
<td>SWITZERLAND</td>
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<tr>
<td>MACAO</td>
<td>511</td>
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<tr>
<td>AUSTRIA</td>
<td>511</td>
</tr>
<tr>
<td>BELGIUM</td>
<td>510</td>
</tr>
<tr>
<td>IRELAND</td>
<td>508</td>
</tr>
<tr>
<td>UNITED STATES</td>
<td>489</td>
</tr>
</tbody>
</table>
Rising healthcare costs
<table>
<thead>
<tr>
<th>Bank</th>
<th>Assets</th>
<th>Liabilities</th>
<th>% Surplus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wells Fargo</td>
<td>$1,375</td>
<td>$1,220</td>
<td>11.3%</td>
</tr>
<tr>
<td>JPMorganChase</td>
<td>$2,321</td>
<td>$2,122</td>
<td>8.6%</td>
</tr>
<tr>
<td>CitiGroup</td>
<td>$1,931</td>
<td>$1,745</td>
<td>9.7%</td>
</tr>
<tr>
<td>Bank of America</td>
<td>$2,166</td>
<td>$1,928</td>
<td>11.0%</td>
</tr>
<tr>
<td>U. S. Federal Reserve</td>
<td>$2,861</td>
<td>$2,806</td>
<td>1.9%</td>
</tr>
</tbody>
</table>
Public Pensions

- Cover most of 22 million employees and millions more retirees
- Who retire at very young ages
- With retirement benefits that increase substantially over time
- Which are funded by funds that are static or declining
- Imposing a huge potential liability for the country as a whole.
Student Debt
Society has invented an in-between where little is truly expected of teens. What if we turned them loose to achieve?

TED KOLDERIE
October 12, 2013
State Spending Priorities
Things not frequently mentioned as problems – by manufacturers

- Wages paid
- Taxes
- Unions – at least industrial unions
Forces Holding Manufacturing Back

- Materials
- Skills of applicants
- Moral character of applicants
- Repelling forces of Cities
- Rampant Overhead both Internal and External
- Sophomoric and wasteful Economic Development Programs
- Chronic indecision of policy makers
The US, including Minnesota, is slipping internationally

- In economic expansion.
- In K-12 education.
- In higher education. (from 1990 to 2000, the US share of refereed articles in scientific and technical journals declined from 40% to 30%.)
- In business formations.
- In the integration of industrial and public policy.
Average annual rate of growth of efficiency in industrial sector selected EU countries 1997-2006
Our Employment Profile is Changing

- Rapid expansion in healthcare employment.
- Rapid expansion in education employment.
- Rapid expansion in services employment.
- Rapid shrinkage in employment related to Tangible Production (manufacturing, agriculture, mining, construction).
- This provides an imbalance versus what was in place during healthier times.
Percent of US Employment in Manufacturing
Health and Education Employment as a % of Manufacturing Employment
Manufacturing & Government Employment in Minnesota 1990-2010 (thousands)
US Manufacturing versus Government Employment 1939-2011 (as of January annually)

Source: Bureau of Labor Statistics (BLS)
http://wjmc.blogspot.com
With fewer people engaged in Tangible Production, several things happen

1. Trade deficits mushroom.
2. Overhead burdens, both internal and external to the firm, make it difficult for major industrial employers to compete effectively and to employ people.
3. Accelerating costs for healthcare and other services often reduce the incentive to employ entry level people in their first job.
Manufacturing Output, Top 5 Countries

Source: United Nations

- China
- US
- Japan
- Germany
- Italy

Carpe Diem Blog
The Most Significant Barrier to the Competitive Position of the US

Overhead – some of it internal to the firm.

Overhead – most of it external to the firm.
US Employment 1939

- Goods-producing
- Trade, Transp & Utilities
- Overhead

Millions

<table>
<thead>
<tr>
<th>Millions</th>
<th>Goods-producing</th>
<th>Trade, Transp &amp; Utilities</th>
<th>Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
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<td></td>
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<tr>
<td>14</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
US Employment 1969

- Green: Goods-producing
- Blue: Trade, Transp & Utilities
- Red: Overhead

Millions

0 10 20 30 40

Goods-producing
Trade, Transp & Utilities
Overhead
US Employment 2000

- Goods-producing
- Trade, Transp & Utilities
- Overhead

Millions

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
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<tr>
<td>10</td>
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<td>20</td>
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<td>60</td>
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<tr>
<td>70</td>
</tr>
<tr>
<td>80</td>
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<tr>
<td>90</td>
</tr>
</tbody>
</table>
US Employment 2013

- Goods-producing
- Trade, Transp & Utilities
- Overhead

Millions

- Goods-producing
- Trade, Transp & Utilities
- Overhead
What we are Up Against

- Better educated people in many other countries.
- Emerging technology developed all over.
- Younger developing labor force in many places.
- Growing prominence of higher education overseas.
<table>
<thead>
<tr>
<th>Region</th>
<th>Population</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>1,823 Million</td>
<td>17.28%</td>
</tr>
<tr>
<td>Africa</td>
<td>650 Million</td>
<td>6.54%</td>
</tr>
<tr>
<td>Australia &amp; Pacific</td>
<td>13 Million</td>
<td>28.45%</td>
</tr>
<tr>
<td>Europe</td>
<td>162 Million</td>
<td>57.66%</td>
</tr>
<tr>
<td>North America</td>
<td>169 Million</td>
<td>37.25%</td>
</tr>
<tr>
<td>South America</td>
<td>172 Million</td>
<td>16.85%</td>
</tr>
<tr>
<td>Central America</td>
<td>23 Million</td>
<td>10.42%</td>
</tr>
<tr>
<td>Caribbean</td>
<td>18 Million</td>
<td>28.45%</td>
</tr>
</tbody>
</table>
Future Labor Force

- Australia & Pacific: 0.4%
- Europe: 5.3%
- Caribbean: 0.6%
- Asia: 60.2%
- North America: 5.6%
- South America: 5.7%
- Central America: 0.8%
- Africa: 21.5%
What Can We Do?

- Spend less money more wisely
- Have people in education work a full year.
- Cultivate a widespread commitment to problem resolution through creativity and sacrifice.
- Elect people who have the courage to vote against their own caucuses.
- Tax investment and speculation differently.
- Recognize that trying to coast uphill is inevitable if we do not modify our behavior.
Things that might make it easier

- Collect the taxes already due.
- Create a nationally recognized retirement age around 70.
- Learn to make progress through subtraction by pruning out many activities and programs unessential to the health of our country.
- Promote widespread efficiency and quality improvements in all industries including finance, education, healthcare, and government.
What Probably Will Not Help

Additional monetary easing.
Extension or creation of tax cuts – for anyone.
Continued extension of very long term unemployment benefits.
Becoming involved in additional overseas conflicts.
Program expansion rather than pruning.
Continued bickering.
Three Positives

US Oil Production

US Agriculture & related manufacturers

Some world-class US manufacturers
Occasionally we squander precious resources

Control Data
Data 100
Univac
Ford Plant
Lockheed Martin
Northwest Airlines
NCS
Many others
Thank You
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Current email = zimco@visi.com