The Decline in Prime Age Employment

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Declining employment rate

A falling share of the population is working

- 64.6% in 2000, down to 60.5% in 2019

The decline in employment among prime-age and younger workers is a key driver … Why?

This is a secular issue

Negative implications for individual economic security and economic growth
Employment Rate: Aged 25-54: Males for the United States

Shaded areas indicate U.S. recessions

Source: Organization for Economic Co-operation and Development

myf.red/g/nC5B
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Source: Organization for Economic Co-operation and Development

myf.red/g/nC5y
Figure 3: Prime-Age Male Labor Force Participation Rates Across the OECD

Source: OECD; CEA calculations.
Analyzing the causes

What does the evidence indicate about the causes of the 1999-2016 decline in the U.S. E/POP ratio?

1. Document demographic and group-specific trends for this period
   - Decompose into demographic shifts and within group declines

2. Consider broad set of potential explanatory factors for within-group declines
   - What is causal link between factor and employment?
   - Might changes in this factor have led to lower employment during the period?
Employment-to-Population Ratio by Age, 1965-2016
<table>
<thead>
<tr>
<th>Age Group</th>
<th>TOTAL</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E/P&lt;sub&gt;1999&lt;/sub&gt;</td>
<td>ΔE/P&lt;sub&gt;99-16&lt;/sub&gt;</td>
<td>E/P&lt;sub&gt;1999&lt;/sub&gt;</td>
</tr>
<tr>
<td>Age 16-24</td>
<td>0.590</td>
<td>-0.096</td>
<td>0.610</td>
</tr>
<tr>
<td>Age 25-54</td>
<td>0.814</td>
<td>-0.035</td>
<td>0.890</td>
</tr>
<tr>
<td>Age 55+</td>
<td>0.310</td>
<td>0.076</td>
<td>0.385</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Age 16-24</th>
<th>TOTAL MALE FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>E/P&lt;sub&gt;1999&lt;/sub&gt;</td>
</tr>
<tr>
<td>Age 16-24</td>
<td>Not In School</td>
</tr>
<tr>
<td></td>
<td>0.726</td>
</tr>
<tr>
<td></td>
<td>0.443</td>
</tr>
<tr>
<td>Age 25-54</td>
<td>Less than HS</td>
</tr>
<tr>
<td></td>
<td>0.639</td>
</tr>
<tr>
<td></td>
<td>0.796</td>
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<tr>
<td></td>
<td>0.838</td>
</tr>
<tr>
<td></td>
<td>0.882</td>
</tr>
<tr>
<td>Age 55+</td>
<td>Less than HS</td>
</tr>
<tr>
<td></td>
<td>0.171</td>
</tr>
<tr>
<td></td>
<td>0.301</td>
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<tr>
<td></td>
<td>0.364</td>
</tr>
<tr>
<td></td>
<td>0.464</td>
</tr>
<tr>
<td>TOTAL</td>
<td>0.643</td>
</tr>
</tbody>
</table>
Decomposition into population changes versus changes within pop groups

What are the contributions of changes in within-group employment rates versus changes in population shares (age/sex) to the overall E/POP decline?

- Changes in population shares: 3.1 pp decline
- Employment declines among those age 16-54: 3.7 pp decline
- Employment increases among those age 55 plus: 1.3 pp increase
- Interaction terms: 0.9 pp increase
- Total: 4.5 pp decline
Potential causes of within-group E/POP declines

1. **Shifts in labor demand**
   e.g., imports, robots, technology

2. **Shifts in labor supply**
   e.g., disability insurance, safety net, child care, opioids, leisure time

3. **Institutional factors and labor market frictions**
   e.g., minimum wage, occupational licensing, mismatch, incarceration
Demand side factors have been most important

<table>
<thead>
<tr>
<th>Factors</th>
<th>Estimated reduction in E/Pop (pp)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major contributing factor</strong></td>
<td></td>
</tr>
<tr>
<td>Growth in imports from China</td>
<td>1.04</td>
</tr>
<tr>
<td>Adoption of industrial robots</td>
<td>0.55</td>
</tr>
<tr>
<td><strong>Significant contributing factor</strong></td>
<td></td>
</tr>
<tr>
<td>Increased receipt of disability benefits (SSDI, VDC)</td>
<td>0.20</td>
</tr>
<tr>
<td>Increased rate of incarceration</td>
<td>0.13</td>
</tr>
<tr>
<td>Higher minimum wages</td>
<td>0.05</td>
</tr>
</tbody>
</table>

(Total explained ~ 2 pp)
Major contributors

1. **Growth in imports from China**
   - From 1999 to 2016, value of Chinese imports increased by 302%
   - Considerable evidence links manufacturing employment declines to China

2. **Adoption of industrial robots**
   - About one new robot per 1000 US workers adopted over past couple of decades
   - Estimates imply 5.6 workers displaced per robot

3. **Disability benefits**
   - SSDI caseload grew by 3.9M recipients between 1999 and 2016, from 4.9M to 8.8M
   - We estimate 1.6M “excess” people on SSDI; also in VADC
   - Apply age-group emp elasticities from academic literature

4. **Rise in incarceration**
   - Tremendous growth in incarceration, but no federal dataset of former prisoners in population, est ~6.2M
   - Incarceration weakens employment for those with substantial earnings before conviction, small share

5. **Increased minimum wages**
   - Driven by local and state raises; younger, less skilled workers most affected
Maybe, but more research needed

**Occupational licensing**
- Plausible that growth in occ lic (~5% in 1950s, ~30% today) hindered employment over this period

**Child care**
- Female employment responsive to price of child care; but has it become harder to access?

**Skill mismatch**
- CEOs often complain that workforce lacks needed skills, but unclear if this is widespread

**Geographic mismatch and worker mobility**
- Mobility has declined, but less clear whether and how this has affected employment rates

**Improved video game technology versus changing social norms**
- Young men spending more time gaming, young men living with relatives
- But, hard to separate from cohort changes in norms –how to document?

**Role of opioid addiction/prescriptions**
- Increased rates of reported pain among those out of workforce; assuming increased opioid use is cause not effect of declining employment, can explain upper bound of 20% of decline in LFPR
- But, some evidence suggesting causation in other direction, or no causal link.
Insignificant factors

• SNAP expansions
• Public health expansions
• Increased rates of spousal employment
• Increased difficulties due to lack of family leave
• Immigration
Policy responses

1. Need to increase number of college graduates
   ◦ More people going to college than ever, but completion rates are too low.
   ◦ Investments in public colleges, community colleges

2. Need productive pathways to work for non-college adults
   ◦ Expansion of CTE programs

3. Reform SSDI
   ◦ Partial system, temporary system, focus on entry margin

4. Increase take-home pay – expansions to EITC

5. Child care provision/subsidies

6. Reform prison system to focus on training, post-release employment