Driverless Vehicles & The Future of Work

How can we mitigate the potential for widespread job loss?
Driving society toward inclusion

• Think tank and action organization that labors in pursuit of a vibrant, diverse, and inclusive world in which everyone has the opportunity to thrive in safe and sustainable environments.

• We advance health, wealth, educational, and civic success for diverse populations.

• Our work is centered in the belief that diversity is not a problem, but the basis of prosperity.
Recently released!

bit.ly/StickShiftReport
Majority of jobs are in delivery and truck driving

**FIGURE A.**

**Percent of Workers in Driving Occupations by Occupation, 2010-2014**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent (five-year average)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS DRIVERS</td>
<td>14.47</td>
</tr>
<tr>
<td>DELIVERY DRIVERS AND HEAVY TRUCK DRIVERS</td>
<td>77.32</td>
</tr>
<tr>
<td>TAXI DRIVERS AND CHAUFFEURS</td>
<td>8.21</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis of American Community Survey data from IPUMS-USA, University of Minnesota, www.ipums.org.
Men Will Get Hit the Hardest by Driverless Vehicles

3.6 Million...  
... men would lose their jobs

95%  
of truck drivers are men

500,000...  
... women would lose their jobs

Truck drivers are paid $34,000/year  
vs.  
Bus drivers: $22,000/year  
vs.  
Cab drivers: $21,000/year
Vast Majority of Drivers Have Less Than a College Degree

Educational Level of Professional Drivers

- High school or less: 63%
- Some college: 30%
- College and more: 7%

VS.

Educational Levels of Non-Driving Professionals

- High school or less: 34%
- Some college: 33%
- College and more: 33%
Driving Jobs are Well-Paying Blue-Collar Jobs

**FIGURE L.**

**Distribution of Workers by Educational Attainment and Occupation**

<table>
<thead>
<tr>
<th>Educational Attainment</th>
<th>BUS DRIVERS</th>
<th>DELIVERY DRIVERS AND HEAVY TRUCK DRIVERS</th>
<th>TAXI DRIVERS AND CHAUFFEURS</th>
<th>TOTAL (ALL OCCUPATIONS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>1.78</td>
<td>0.81</td>
<td>3.59</td>
<td>11.80</td>
</tr>
<tr>
<td>College</td>
<td>6.94</td>
<td>4.63</td>
<td>13.04</td>
<td>20.54</td>
</tr>
<tr>
<td>Some College</td>
<td>45.30</td>
<td>29.17</td>
<td>31.48</td>
<td>32.76</td>
</tr>
<tr>
<td>High School</td>
<td>9.30</td>
<td>17.41</td>
<td>36.86</td>
<td>25.14</td>
</tr>
<tr>
<td>Less than High School</td>
<td>36.67</td>
<td>47.98</td>
<td>15.03</td>
<td>9.76</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis of American Community Survey data from IPUMS-USA, University of Minnesota, www.ipums.org.
Delivery and truck drivers have highest pay

**FIGURE B.**

**Median Annual Wages for Driving Occupations, 2010-2014**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Median Annual Wages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BUS DRIVERS</strong></td>
<td>$21,685</td>
</tr>
<tr>
<td><strong>DELIVERY DRIVERS AND HEAVY TRUCK DRIVERS</strong></td>
<td>$34,738</td>
</tr>
<tr>
<td><strong>TAXI DRIVERS AND CHAUFFEURS</strong></td>
<td>$20,737</td>
</tr>
<tr>
<td><strong>TOTAL (ALL OCCUPATIONS)</strong></td>
<td>$33,685</td>
</tr>
</tbody>
</table>

Source: Authors’ analysis of American Community Survey data from IPUMS-USA, University of Minnesota, www.ipums.org.
Driving Jobs by Race and Ethnicity

- 652,634 Blacks
- 2,537,122 Whites
- 716,595 Hispanic
- 114,802 Asians
- 58,892 American Indian

[Whites would lose most jobs to driverless vehicles.]
Blacks and Hispanics rely more on driving jobs

FIGURE E.

Percent of Workers in Driving Occupations by Race and Hispanic Ethnicity, 2010-2014

Source: Authors’ analysis of American Community Survey data from IPUMS-USA, University of Minnesota, www.ipums.org.
People of color would be most impacted by driverless vehicles

More people of color are in driving jobs than the national average. Blacks, Hispanics, and American Indians earn more in driving jobs than in other occupations.

Percentage of workers in driving jobs in each racial group...

- **2.9%**
  - Share of US workers in driving occupations

- **4.2%**
  - Blacks
  - Paid more than in non-driving jobs: $2,500

- **3.3%**
  - Hispanics
  - Paid more than in non-driving jobs: $5,800

- **3.1%**
  - American Indians
  - Paid more than in non-driving jobs: $2,000

- **2.7%**
  - Whites
  - Paid more than in non-driving jobs: $6,400

- **1.6%**
  - Asians
  - Paid less than in non-driving jobs: $14,600
States Hardest Hit by Driverless Vehicles

Source: Authors' analysis of American Community Survey data from IPUMS-USA, University of Minnesota, www.ipums.org. Choropleth uses a five-bucket Jenks natural breaks optimization.
States Worst Hit by Driverless Vehicles

Share of workers in driving jobs.

- ID: 3.5%
- WY: 3.7%
- ND: 3.5%
- IA: 3.3%
- IN: 3.2%
- AR: 3.4%
- MS: 3.7%
- WV: 3.6%

National Average...

2.9%

of all U.S. workers are in driving occupations

Drivers in these states are paid $1,000/year more than in other jobs.
More workers in these states have driving jobs than the national average.
Preparing for Employment Disruptions

• Unemployment insurance reform and retraining
• Apprenticeship programs
• Unions
• Affordable higher education
• Progressive universal basic income
• Entrepreneurship programs and incentives
• Full employment policy
Driving society toward inclusion.

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