Discussion:
Understanding the Economic Impact of COVID-19 on Women
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Employment by Gender During COVID-19

- Women experienced a bigger decline in employment than men

Change in the employment-to-population ratio relative to the same month in 2019, by gender, January 2020 to December 2021. Population age 25-54 years old.
Source: Author’s calculations from Current Population Survey.
**Employment by Gender During COVID-19**

- Women experienced a bigger decline in employment than men
- Pattern differs from typical recessions

Percentage change in the employment-to-population ratio since the start of each recession for the last three pre-pandemic business cycles. Recession dates based on the National Bureau of Economic Research business cycle dates. Source: Authors’ calculations based on Current Population Survey.
Typical Business Cycles

- Employment drops more for men than women in typical recessions

- Explanations:

  **Labor demand:**
  men employed in more cyclical industries/occupations
  (Albanesi and Sahin 2018)
  i.e. manufacturing, construction

  **Labor supply:**
  household insurance (Albanesi 2019, Ellieroth 2019)
  i.e. married women less likely to leave the labor force in recessions
COVID-19 Recession

- Women experience larger decline in employment than men
- Explanations (Albanesi & Kim 2021):

**Labor demand:**
Women over-represented in service occupations exposed to infection risk

**Labor supply:**
Mothers saddled with childcare responsibilities due to school closures
Labor Demand by Gender During COVID-19

Occupational categorization:

High/Low-contact, based on distance with co-workers/customers
Flexible/Inflexible, based on ability to perform work remotely
Labor Demand by Gender During COVID-19

Occupational categorization:

- **Flexible/High-contact** i.e. education
- **Flexible/Low-contact**
  i.e. professionals, managers, legal, sales, administrative
- **Inflexible/High-contact** most affected by COVID-19
  i.e. healthcare, personal care, hospitality
- **Inflexible/Low-contact** most affected by standard recessions
  i.e. production, construction, transportation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Employed women</th>
<th>Employed men</th>
<th>Total employed</th>
<th>Female share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible, High-contact</td>
<td>10</td>
<td>3</td>
<td>6</td>
<td>76</td>
</tr>
<tr>
<td>Flexible, Low-contact</td>
<td>53</td>
<td>48</td>
<td>51</td>
<td>50</td>
</tr>
<tr>
<td>Inflexible, High-contact</td>
<td><strong>26</strong></td>
<td><strong>9</strong></td>
<td><strong>17</strong></td>
<td><strong>73</strong></td>
</tr>
<tr>
<td>Inflexible, Low-contact</td>
<td>11</td>
<td>40</td>
<td>26</td>
<td>19</td>
</tr>
</tbody>
</table>

Values in percentage for February 2020. Detailed categorization in Appendix. Source: Author’s calculations based on CPS.
**Labor Demand by Gender During COVID-19**

- Inflexible occupations suffer big & persistent employment loss dominated by low wage workers, without college degree

Percentage change in the employment-to-population ratio by occupation from same month in 2019. Population age 25-54 years old. Source: Authors’ calculations based on CPS.
**Labor Demand by Gender During COVID-19**

- Occupation distribution accounts for 1/3 of gender differences in employment behavior
- Controlling for age, education and occupation:
  significant gender differences flows into unemployment

Female-male difference in changes in employment-to-unemployment flows relative to 2019 average by family status, controlling for age, education and occupation. Error bars denote 90% confidence intervals. Population 25-54 years old. Individuals ”with children” have children younger than 12 years old residing in their households. Source: Author’s calculations from CPS.
Labor Supply by Gender During COVID-19

- Aggregate decline in participation quite similar for men and women

Participation by Gender During COVID-19

- Controlling for age, education and occupation:
  non-participation rises for single/married mothers compared to single/married fathers in 2020

Female-male difference in changes in non-participation relative to 2019 average by family status, controlling for age, education and occupation. Error bars denote 90% confidence intervals. Population 25-54 years old. Individuals "with children" have children younger than 12 years old residing in their households. Source: Author’s calculations from CPS.
Participation by Gender During COVID-19

- Controlling for age, education and occupation:
  1. No significant gender differences in quits from employment
  2. Rise in non-participation for mothers stems from unemployment

Female-male difference in changes in employment-to-nonparticipation flows and unemployment-to-nonparticipation flows relative to 2019 average by family status, controlling for age, education and occupation. Error bars denote 90% confidence intervals. Population 25-54 years old. Individuals "with children" have children younger than 12 years old residing in their households.

Source: Author’s calculations from CPS.
Participation by Gender During COVID-19

- Controlling for age, education and occupation:
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→ Decline in labor demand responsible for decline in labor supply

Female-male difference in changes in employment-to-nonparticipation flows and unemployment-to-nonparticipation flows relative to 2019 average by family status, controlling for age, education and occupation. Error bars denote 90% confidence intervals. Population 25-54 years old. Individuals "with children" have children younger than 12 years old residing in their households.

Source: Author’s calculations from CPS.
Looking Forward

- Labor demand: jobless recoveries since 1990 due to permanent reduction in routine jobs due to automation
  (Acemoglu and Autor 2011, Jaimovich and Siu 2020)
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**Table: Susceptibility to Automation by Occupation**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Percent Employed in High Routine Intensity Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexible, High-Contact</td>
<td>0.2</td>
</tr>
<tr>
<td>Flexible, Low-Contact</td>
<td>49.0</td>
</tr>
<tr>
<td><strong>Inflexible, High-Contact</strong></td>
<td><strong>34.3</strong></td>
</tr>
<tr>
<td>Inflexible, Low-Contact</td>
<td>22.0</td>
</tr>
</tbody>
</table>


→ Occupations hardest hit by the pandemic highly susceptible to automation
Looking Forward

- Labor supply: discontinued rise in female participation since mid-1990s


Why Did Women’s LFP Stop Growing?

- Slowdown in participation only for married women, largest for wives of college husbands: 17% lower than pre-1995 trend
  wives of high income husbands: 20% lower than pre-1995 trend
Why Did Women’s LFP Stop Growing?

- **Hypothesis:** (Albanesi & Prados 2022)
  
  Rise in college premium for men contributes to slowdown in participation of married women since the early 1990s

- **Mechanism:**
  
  Rise in earnings for college men $\Rightarrow$ negative wealth effect on wives’ participation and market hours

  $\rightarrow$ Positive assortative matching implies large effect on college women

- **Related explanations:** Greedy jobs (Goldin 2021)
Why Did Women’s LFP Stop Growing?

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- **Related explanations:** Greedy jobs (Goldin 2021)

- **Other factors:** Lack of access to family policies (Blau & Kahn 2013)
Looking Forward

- Reduced labor supply may outlive the pandemic:

  1. Temporary non-participation spells reduce perspective wages (Adda, Dustman and Stevens 2017), may deter labor market re-entry

  2. Persistent decline in hours conditional on participation for men and women (Faberman, Mueller & Sahin 2022)

- Historic rise in women’s labor supply contributed to (Albanesi 2019):
  - TFP growth
  - Wage growth for men and women
  - ‘Moderated’ business cycles
  - Strong employment growth during business cycle recoveries

→ Re-establishing this growth pattern will add competitiveness to U.S. economy post-pandemic
**Looking Forward**

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→ Re-establishing this growth pattern will add competitiveness to U.S. economy post-pandemic
END

Additional Slides
## Detailed Occupational Classification

- Exposure to pandemic by occupation

1. **High/Low-contact**, based on distance with co-workers/customers

2. **Flexible/Inflexible**, based on ability to perform work remotely

<table>
<thead>
<tr>
<th>Flexible</th>
<th>Inflexible</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-contact</strong></td>
<td>Education, Training, and Library</td>
</tr>
<tr>
<td></td>
<td>Healthcare Support</td>
</tr>
<tr>
<td></td>
<td>Food Preparation and Serving</td>
</tr>
<tr>
<td></td>
<td>Personal Care and Service</td>
</tr>
<tr>
<td><strong>Low-contact</strong></td>
<td>Management</td>
</tr>
<tr>
<td></td>
<td>Business</td>
</tr>
<tr>
<td></td>
<td>Computer and Mathematical</td>
</tr>
<tr>
<td></td>
<td>Architecture and Engineering</td>
</tr>
<tr>
<td></td>
<td>Life, Physical, and Social Science</td>
</tr>
<tr>
<td></td>
<td>Community and Social Services</td>
</tr>
<tr>
<td></td>
<td>Legal</td>
</tr>
<tr>
<td></td>
<td>Arts, Design, Entertainment, Sports, and Media</td>
</tr>
<tr>
<td></td>
<td>Sales and Related</td>
</tr>
<tr>
<td></td>
<td>Office and Administrative</td>
</tr>
</tbody>
</table>

Occupations are inflexible if their inflexibility score is above the median and flexible otherwise. Occupations are high-contact if their contact intensity score is 4 or above, corresponding to a distance of less than 6 feet. Source: Author’s calculations based on O*NET.


