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Background

- Traditional ways to look at low-income populations: Poverty rate, income inequality, etc.
- We offer an alternative: income risk.
- We ask: Are risks rising for low-income populations? How do trends in risk to low-income families compare to trends in to families with higher incomes.
Approach

- Income risk has become a frequent subject of political debate.
- Anecdotally, income risk appears to be on the rise.
- Previous research shows an increase in the *volatility* of family income, but volatility and risk are not the same.
- Little research on income risk.
  - Burkhauser and Duncan (1989).
Goals

- Assess trends in income volatility
  - Are trends robust to measurement error?
  - Do trends vary across age, education, and (especially) income subgroups?
  - Explore relationship between volatility and real risk
  - Are increases in volatility the result of voluntary movement in and out of the labor force?
  - Does income risk associated with destabilizing life events show a similar increase?
Findings

- Family income became substantially more volatile between the 1970s and the early 2000s.
- Increases in volatility and risk have been especially pronounced among low-income families.
- Over the same period, people dealing with destabilizing life events became more likely to experience large income drops.
Data and Methods

- **Data**
  - All weighted data.
  - Individuals 25-64 years old with at least $10 in family income (2007 dollars).

- **Volatility Methods**
  - We focus on total family income less out-transfers.
  - For a given individual, we define volatility in year $t$ as the variance of age-adjusted income over years $t$, $t+2$, $t+4$, and $t+6$.
  - We use the average and percentiles of the distribution of individual volatilities as measures of volatility in the population as a whole.
  - This follows Gottschalk and Moffitt (1994).

- **Life Events/Income Drops Methods**
  - Different trim: top and bottom 2% of distribution of changes.
  - Chances of 50% income drops.
  - Chances of experiencing a destabilizing event.
  - Fraction of destabilizing events associated with 50% income drops.
Trends in Income Volatility

Transitory Variance of Family Income

- Mean
- Median
- 75th Percentile
- 25th Percentile


Variance Values: 0.0, 0.05, 0.1, 0.15, 0.2, 0.25, 0.3
Volatility by Income Quintile

Transitory Variance of Family Income by Quintile

- First Quintile
- Second Quintile
- Third Quintile
- Fourth Quintile
- Fifth Quintile

Data points for each quintile are plotted over the years 1970 to 1995.
Volatility by Educational Attainment

Transitory Variance by Education Level

- <HS
- HS
- Some College
- College
Volatility by Earner Pattern

Transitory Variance of Family Income by Earner Pattern

Two Earners
Single Earner
Switch to One Earner
Switch to Two Earners
Back and Forth
Robustness across datasets

Transitory Variance of Family Income in the PSID and the SIPP

- PSID
- SIPP
# Chances of Large Income Drops

## Probability of Income Drops of Various Sizes over Two Years

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Age Group</th>
<th>Income at least 25%</th>
<th>Income at least 50%</th>
<th>Income/Needs at least 25%</th>
<th>Income/Needs at least 50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-1983</td>
<td>25-65 years old</td>
<td>17.13%</td>
<td>4.60%</td>
<td>15.05%</td>
<td>3.63%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>15.96%</td>
<td>3.95%</td>
<td>12.50%</td>
<td>2.79%</td>
</tr>
<tr>
<td>1984-1993</td>
<td>25-65 years old</td>
<td>16.94%</td>
<td>5.71%</td>
<td>15.36%</td>
<td>4.73%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>15.77%</td>
<td>5.12%</td>
<td>13.38%</td>
<td>4.05%</td>
</tr>
<tr>
<td>1994-2003</td>
<td>25-65 years old</td>
<td>19.31%</td>
<td>7.75%</td>
<td>18.49%</td>
<td>6.99%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>18.07%</td>
<td>7.24%</td>
<td>17.06%</td>
<td>6.61%</td>
</tr>
</tbody>
</table>
## Chances of Destabilizing Life Events

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Age Group</th>
<th>Divorce/Sep</th>
<th>Death of Spouse</th>
<th>New Child</th>
<th>Head's retirement or disability</th>
<th>Head's Major Unemployment</th>
<th>Work loss of Head due to illness</th>
<th>Fall in work Hours of Wife</th>
<th>Any of the seven events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1973-1983</strong></td>
<td>25-65 years old</td>
<td>2.87%</td>
<td>0.92%</td>
<td>6.12%</td>
<td>3.49%</td>
<td>6.94%</td>
<td>3.11%</td>
<td>13.97%</td>
<td>30.30%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>2.18%</td>
<td>0.80%</td>
<td>1.32%</td>
<td>2.19%</td>
<td>7.03%</td>
<td>3.29%</td>
<td>13.01%</td>
<td>25.56%</td>
</tr>
<tr>
<td><strong>1983-1993</strong></td>
<td>25-65 years old</td>
<td>3.22%</td>
<td>0.86%</td>
<td>6.59%</td>
<td>3.64%</td>
<td>6.94%</td>
<td>2.39%</td>
<td>15.70%</td>
<td>31.43%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>3.10%</td>
<td>0.69%</td>
<td>1.92%</td>
<td>2.11%</td>
<td>6.30%</td>
<td>2.69%</td>
<td>14.70%</td>
<td>26.05%</td>
</tr>
<tr>
<td><strong>1993-2003</strong></td>
<td>25-65 years old</td>
<td>3.11%</td>
<td>0.73%</td>
<td>6.13%</td>
<td>2.78%</td>
<td>5.06%</td>
<td>2.08%</td>
<td>16.41%</td>
<td>28.91%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>3.02%</td>
<td>0.69%</td>
<td>2.33%</td>
<td>1.95%</td>
<td>5.12%</td>
<td>2.07%</td>
<td>14.90%</td>
<td>24.91%</td>
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</tbody>
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## Percentage of Destabilizing Events Associated with 50% Income Drops

<table>
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</tr>
</thead>
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<tr>
<td>1973-1983</td>
<td>25-65 years old</td>
<td>29.57%</td>
<td>25.09%</td>
<td>7.24%</td>
<td>25.19%</td>
<td>17.27%</td>
<td>14.91%</td>
<td>8.47%</td>
<td>14.25%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>31.72%</td>
<td>22.56%</td>
<td>6.44%</td>
<td>28.81%</td>
<td>16.04%</td>
<td>14.90%</td>
<td>7.13%</td>
<td>14.15%</td>
</tr>
<tr>
<td>1983-1993</td>
<td>25-65 years old</td>
<td>29.32%</td>
<td>30.01%</td>
<td>8.07%</td>
<td>30.94%</td>
<td>21.79%</td>
<td>16.39%</td>
<td>9.30%</td>
<td>16.86%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>32.59%</td>
<td>32.04%</td>
<td>10.10%</td>
<td>29.26%</td>
<td>21.90%</td>
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<td>1993-2003</td>
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<td>39.56%</td>
<td>9.53%</td>
<td>34.91%</td>
<td>25.53%</td>
<td>19.29%</td>
<td>12.21%</td>
<td>20.15%</td>
</tr>
<tr>
<td></td>
<td>35-55 years old</td>
<td>35.88%</td>
<td>36.54%</td>
<td>7.18%</td>
<td>33.19%</td>
<td>24.67%</td>
<td>19.86%</td>
<td>11.43%</td>
<td>20.23%</td>
</tr>
</tbody>
</table>
Summary

- Income volatility has increased since the early 1970s.
  - This trend persists across age, education, and (especially) income subgroups.
  - It cannot be fully explained by data error or decisions about work labor force participation.

- Destabilizing life events were more often accompanied by large income drops in the 1990s and early 2000s than in the 1970s and 1980s.

- These trends are especially pronounced amongst low-income families, but are certainly not limited to that group.
Conclusions

- Along with other recent research, our work confirms a general increase in the volatility of family income.
- This increase cannot easily be written off as the product of voluntary decisions about labor force participation.
- More direct measures of risk also seem to have risen.
- The evidence so far suggests that worries about income risk may be justified.
  - But it is possible that increasing access to credit allows people to smooth consumption over low-income years
- Destabilizing forces that affect low-income families also affect higher-income families. Might this impact prospects for upward mobility?