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The Interplay between Women’s Earnings and Household Income: A Cross-National Analysis of High- and Middle-Income Countries

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Three overarching questions

- What share of the “household income package” is contributed by women household members (including both earnings and transfers)? Is cross-national variation in women’s shares shaped more by variation in employment rates or by variation in earnings levels?

- Do women’s earnings (and transfers) increase or mitigate inter-HH income inequality?

- To what extent do women’s earnings (and transfers) enable their HHs to escape income poverty and/or to attain middle-class income levels?
Data and methods

• **Data source**: Luxembourg Income Study (LIS) Database, a cross-national database containing repeated cross-sections of microdata – available at 3-5 year intervals – from approximately 50 high- and middle-income countries.

• **Datasets used**. Ten datasets centered on 2010 (wave VIII). Five Latin American countries (**Brazil, Chile, Colombia, Mexico, Peru**) and five Anglophone countries (**Australia, Canada, Ireland, the United Kingdom and the United States**).
### LIS’ original data sources

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>2011</td>
<td>National Household Sample Survey (PNAD)</td>
</tr>
<tr>
<td>Chile</td>
<td>2009</td>
<td>National Socio-Economic Characterization Survey (CASEN)</td>
</tr>
<tr>
<td>Colombia</td>
<td>2010</td>
<td>Great Integrated Household Survey (GEIH)</td>
</tr>
<tr>
<td>Mexico</td>
<td>2010</td>
<td>Household Income and Expenditure Survey (ENIGH)</td>
</tr>
<tr>
<td>Peru</td>
<td>2010</td>
<td>National Household Survey (ENAHO)</td>
</tr>
<tr>
<td>Australia</td>
<td>2010</td>
<td>Survey of Income and Housing (SIH) and Household Expenditure Survey (HES)</td>
</tr>
<tr>
<td>Canada</td>
<td>2010</td>
<td>Survey of Labour and Income Dynamics (SLID)</td>
</tr>
<tr>
<td>Ireland</td>
<td>2010</td>
<td>Survey on Income and Living Conditions (SILC)</td>
</tr>
<tr>
<td>UK</td>
<td>2010</td>
<td>Family Resources Survey (FRS)</td>
</tr>
</tbody>
</table>
Data and Methods (cont.)

- **Selected households.** Within-country samples limited to households headed by heterosexual married or cohabiting couples, with both “heads” aged 25-59 (inclusive). These households may also contain other persons of any age.

- **Income variables.** We include – for each of the two HH heads – individual-level earnings from wages and self-employment, and transfers that can be allocated to them as individuals. We then “fill out” household income by adding earnings contributed by other household members, and, for the HH as a whole, all capital income, and all transfers that cannot be assigned to the two heads. (We net out direct taxes paid by the HH to arrive at DHI).
• **Labor market variables.** We report (and compare) the frequency of earnings \( > 0 \) (during earnings reference period, typically a year, sometimes a period of months) and categorical employment rates (usually the week before the interview).

Categorical employment rates based on LIS variable: “current labor force status” (CLFS). Coded as “yes” for persons who “carried out any employment (any type or any extent), even if just one occasional hour of paid work or irregular unpaid family work, and even if absent from work.” This definition follows as closely as possible the ILO definition of "currently employed". (Note: Unpaid family work does not refer to domestic labor; it refers to uncompensated work – e.g., in a family business or in farming – that supports production for the market).
Data and Methods (cont.)

• **Adjusting for HH size and weighting.** All income values are adjusted for household size, using the standard “square root equivalence” scale. All results are weighted at the person level.

• **Main measures used.**

  * **Inequality:** Gini index (0-1), also the mean log deviation

  * **Poverty:** DHI income < 40%, 50%, 60% of median HH DHI

  * **Middle class:** DHI within 75-125%, 50-150%, 50-200% of median HH DHI

*Today, will report results only for 50% (poverty) and 50-150% (middle).
Results

• Household Income Packages
• Labor Market Outcomes
  • Inequality
  • Poverty (at 50%)
• Middle Class Attainment (at 50-150%)
Household Income Packages – 1

FIG 1A
Male and Female Heads' Contributions to Disposable Household Income:
Male Earnings and Transfers, Female Earnings and Transfers

<table>
<thead>
<tr>
<th>Country</th>
<th>Male Earnings</th>
<th>Male Transfers</th>
<th>Female Earnings</th>
<th>Female Transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>63%</td>
<td>4%</td>
<td>2%</td>
<td>25%</td>
</tr>
<tr>
<td>Chile</td>
<td>59%</td>
<td>1%</td>
<td>1%</td>
<td>21%</td>
</tr>
<tr>
<td>Colombia</td>
<td>66%</td>
<td>3%</td>
<td>3%</td>
<td>23%</td>
</tr>
<tr>
<td>Mexico</td>
<td>57%</td>
<td>2%</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>Peru</td>
<td>58%</td>
<td>1%</td>
<td>20%</td>
<td>1%</td>
</tr>
<tr>
<td>Australia</td>
<td>67%</td>
<td>2%</td>
<td>30%</td>
<td>4%</td>
</tr>
<tr>
<td>Canada</td>
<td>69%</td>
<td>3%</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>Ireland</td>
<td>64%</td>
<td>9%</td>
<td>37%</td>
<td>5%</td>
</tr>
<tr>
<td>UK</td>
<td>71%</td>
<td>3%</td>
<td>36%</td>
<td>6%</td>
</tr>
<tr>
<td>US</td>
<td>73%</td>
<td>4%</td>
<td>36%</td>
<td>3%</td>
</tr>
</tbody>
</table>
FIG 1B
Male and Female Heads' Contributions to Total of Male Earnings + Male Transfers + Female Earnings + Female Transfers
Household Income Packages – 3

FIG 1C
Male and Female Heads' Contributions to Total of Male Earnings + Male Transfers + Female Earnings + Female Transfers
Restricted to Households In Which Female Heads' Earnings > 0

<table>
<thead>
<tr>
<th>Country</th>
<th>Male Earnings</th>
<th>Male Transfers</th>
<th>Female Earnings</th>
<th>Female Transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>54%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>56%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>56%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>57%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>57%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>56%</td>
<td></td>
<td></td>
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</tr>
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</table>
Labor Market Outcomes – 1

FIG 2A
Male Heads - Percent with Positive Earnings, and Employment Rates

<table>
<thead>
<tr>
<th>Country</th>
<th>Positive Earnings</th>
<th>Employment Rate</th>
</tr>
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<tbody>
<tr>
<td>Brazil</td>
<td>90% 92%</td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td>95% 94%</td>
<td></td>
</tr>
<tr>
<td>Colombia</td>
<td>93% 92%</td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>90% 94%</td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>91% 97%</td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td>89% 91%</td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td>93% 89%</td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td>87% 89%</td>
<td>77% 72%</td>
</tr>
<tr>
<td>UK</td>
<td>87% 89%</td>
<td>72% 72%</td>
</tr>
<tr>
<td>US</td>
<td>90% 85%</td>
<td></td>
</tr>
</tbody>
</table>
FIG 2C
Composition of Employed Male Heads

Brazil: 68% in paid employment, 30% self-employed, 2% unpaid family worker
Chile: 78% in paid employment, 22% self-employed, 0% unpaid family worker
Colombia: 47% in paid employment, 50% self-employed, 4% unpaid family worker
Mexico: 76% in paid employment, 4% self-employed, 4% unpaid family worker
Peru: 49% in paid employment, 40% self-employed, 11% unpaid family worker
Australia: 87% in paid employment, 0% self-employed, 0.0% unpaid family worker
Canada: 86% in paid employment, 0.3% self-employed, 0.3% unpaid family worker
Ireland: 78% in paid employment, 0.3% self-employed, 0.1% unpaid family worker
UK: 85% in paid employment, 0.1% self-employed, 0.1% unpaid family worker
US: 88% in paid employment, 0.0% self-employed, 0.0% unpaid family worker
Labor Market Outcomes – 4

FIG 2D
Composition of Employed Female Heads

- Brazil: 76%, in paid employment
- Chile: 80%, in paid employment
- Colombia: 47%, in paid employment
- Mexico: 69%, in paid employment
- Peru: 34%, in paid employment
- Australia: 92%, in paid employment
- Canada: 90%, in paid employment
- Ireland: 93%, in paid employment
- UK: 92%, in paid employment
- US: 93%, in paid employment

Legend:
- Green: in paid employment
- Light Green: self-employed
- White: unpaid family worker
Inequality – Men vs Women – 1

FIG 3A
Inequality (Ginis)
DHI, Male Heads' Earnings, Female Heads' Earnings
(Heads with Zero Earnings Included)

Brazil: 0.57, Chile: 0.57, Colombia: 0.76, Mexico: 0.80, Peru: 0.84
Australia: 0.57, Canada: 0.51, Ireland: 0.67, UK: 0.60, US: 0.61

- Green: total disposable HH income (DHI)
- Blue: male heads' earnings
- Yellow: female heads' earnings
Inequality – Men vs Women – 2

FIG 3B
Inequality (Ginis)
DHI, Male Heads' Earnings, Female Heads' Earnings
(Heads with Zero Earnings Excluded)
Inequality Across HHs

FIG 3C
Inequality (Ginis)
Based on DHI, DHI minus Female Heads' Earnings, DHI minus Female Heads' Earnings and Transfers

Brazil 0.48 0.47 0.47
Chile 0.45 0.44 0.45
Colombia 0.48 0.47 0.47
Mexico 0.48 0.47 0.47
Peru 0.48 0.48 0.48
Australia 0.31 0.34 0.31
Canada 0.28 0.37 0.33
Ireland 0.28 0.37 0.34
UK 0.36 0.36 0.32
US 0.39 0.39 0.38

Legend:
- Blue: based on DHI
- Light Blue: DHI minus female heads' earnings
- White: DHI minus female heads' earnings and transfers
Poverty

FIG 4
Poverty Rates at 50% of Country Median:
Based on DHI, DHI minus Female Heads' Earnings, DHI minus Female Heads' Earnings and Transfers
The “Middle Class”

FIG 5
Percent of Individuals in the "Middle Class" (50-150% of Country Median):
Based on DHI, DHI minus Female Heads' Earnings, DHI minus Female Heads' Earnings and Transfers

<table>
<thead>
<tr>
<th>Country</th>
<th>Based on DHI</th>
<th>DHI minus female heads' earnings</th>
<th>DHI minus female heads' earnings and transfers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>52%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Chile</td>
<td>53%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Colombia</td>
<td>50%</td>
<td>51%</td>
<td>51%</td>
</tr>
<tr>
<td>Mexico</td>
<td>48%</td>
<td>47%</td>
<td>47%</td>
</tr>
<tr>
<td>Peru</td>
<td>45%</td>
<td>48%</td>
<td>48%</td>
</tr>
<tr>
<td>Australia</td>
<td>69%</td>
<td>73%</td>
<td>73%</td>
</tr>
<tr>
<td>Canada</td>
<td>69%</td>
<td>72%</td>
<td>72%</td>
</tr>
<tr>
<td>Ireland</td>
<td>68%</td>
<td>74%</td>
<td>74%</td>
</tr>
<tr>
<td>UK</td>
<td>67%</td>
<td>72%</td>
<td>72%</td>
</tr>
<tr>
<td>US</td>
<td>66%</td>
<td>64%</td>
<td>64%</td>
</tr>
</tbody>
</table>
Overall conclusions – re: women’s earnings in the two country clusters

In these Anglophone countries, women’s earnings – although significantly < those of their male partners’ – constitute a substantial share of the HH income package. Women’s earnings constitute:

- 30-37% of DHI
- 29-32% of heads’ combined earnings
- 37-43% of heads’ earnings, where women have earnings > zero

In these Latin American countries, women’s earnings constitute a smaller share, until we condition on positive earnings. Women’s earnings constitute:

- 16-25% of DHI
- 21-26% of heads’ combined earnings
- 37-41% of heads’ earnings, where women have earnings > zero
Overall conclusions – re: women’s earnings in the two country clusters

In these *Anglophone* countries, women’s employment rates and earnings are less than their male partners’, reported at:

- **Employment**: 58% (Ireland) to 77% (Canada, UK)
- **Positive earnings**: 62% (Ireland) to 83% (Canada)
- **% in paid employment**: 90% (Canada) to 93% (US)

And in the *Latin American* countries, they are substantially less:

- **Employment**: 43% (Mexico) to 77% (Peru)
- **Positive earnings**: 39% (Mexico) to 54% (Peru)
- **% in paid employment**: 34% (Peru) to 80% (Chile)
Overall conclusions – re: women’s earnings in the two country clusters

In these **Anglophone** countries, women’s earnings affect:

- **Inter-HH inequality**: women’s earnings are equalizing (3-5p)
- **Poverty**: women’s earnings reduce by 5-8 pp
- **Middle class size**: women’s earnings *reduce* by 4-5 pp
  
  1-2 HH’s “out” (up) for every one “in”

  (paradoxically, disequalizing at this point in the distribution)

In these **Latin American** countries, women’s earnings affect:

- **Inter-HH inequality**: women’s earnings have little to no effect
- **Poverty**: women’s earnings reduce by 2-3 pp
- **Middle class size**: women’s earnings *reduce* by 2-4 pp
  
  2-3 HH’s “out” (up) for every one “in”

  (disequalizing at this point in the distribution)
Thank You

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Director, US Office of LIS