# Domestic migration: FOR money or for love? 

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- Just under $5 \%$ of the U.S. population moves over 80 km every year-a major life transition. How many see relative income gains?
- Data: the U.S. formal economy, 2001-2015
-1.75 billion observations, with 82.7 million moves $>80 \mathrm{~km}$
- Any 1040, W-2, 1099, informational return about unemployment insurance, retirement, Social Security and other retirement income, mortgage, school tuition.
- This paper is part of a larger project to improve analysis for tax administration.
- ~ Half of movers see worse income shortly after moving, relative to staying.
- School leavers do very well. Young movers do well.
- Single parent movers do badly. Older movers (even non-retired) do badly.
- A call for models: papers asserting or demonstrating that households move to rationally maximize income are orthodoxy. Fewer models address the other half of the population of movers.


## Generate cells with matched households

Put every household in the same cell who has identical. . .

- Income (AGI)
- Age (via Social Security database)
- Count of dependents $<18$
- Marital status
- Unemployment income
- Retirement income
- Local tax payments
- Federal tax payments
- Mortgage status
- Sex
- School status: $\left\{\right.$ not, $\frac{1}{2}$ time, undergrad, grad\}
- ZIP code characteristics, 2011 data:
- density
- unemployment rate
- Cost of living (housing costs as \% of income)

Now, for each cell, construct the counterfactual change in income given staying.

$$
\begin{aligned}
\Delta \equiv & \text { (overall \% change in income for movers) } \\
& - \text { (overall \% change in income for stayers) }
\end{aligned}
$$

Positive $\Delta \equiv$ movers in this cell see better incomes than the counterfactual of staying, constructed by looking at stayers matched on all 14 dimensions.

- $X$ axis: $\Delta$
- $Y$ axis: density of movers
- Darker $=R+2$, to lighter $=R+$ 10
- Medians shown below main plot.
For all movers, density of $\Delta$ has a broad distribution and is largely symmetric, steeply peaked at zero, with some upward lean.

For subpopulations, however, distributions may show distinctive, asymmetric patterns. Here, outcomes for movers leaving school lean positive.



Displaying $\Delta$ distributions for dozens of subgroups is awkward, but here are some tables with:

- \% of the subpopulation moving
- \% with positive $\Delta$ (i.e., where movers do better than stayers), two years after the pre-move year (the reference year, $R$ )
- Median $\Delta$ two years after $R$
- \% with positive $\Delta$ ten years after $R$
- Median $\Delta$ ten years after $R$

[^0]| All, no drop in cost of living |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Excluding cells w/a cost of living drop $\Rightarrow$ little qualitative change. |  |  |  |  |  |
|  |  | $R+2$ |  | $R+10$ |  |
| Subgroup | \% of movers | \%pos | median | \%pos | median |
| All | $100 \%$ | 55.81\% | 0.01 | 63.53\% | 0.06 |
| All, no cost-of-living drop | 71.05\% | 54.17\% | 0.01 | 62.55\% | 0.06 |

## Leaving school: exceptionally large $\Delta$ s

|  |  | $R+2$ |  |  | $R+10$ |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | :---: | :---: |
| Subgroup | \% of movers | \%pos |  | median |  | \%pos |  | median |
| All | $100 \%$ | $55.81 \%$ | 0.01 |  | $63.53 \%$ | 0.06 |  |  |
| Leaving school, all | $6.74 \%$ | $78.51 \%$ | 0.23 |  | $72.02 \%$ | 0.24 |  |  |
| All others | $93.26 \%$ | $53.05 \%$ | 0.00 |  | $61.92 \%$ | 0.05 |  |  |

School leavers seem to be an exceptional population. Exclude them from the rest of the analysis below.

## Retiring or retired: $\Delta$ leans negative

| Subgroup \% of movers |  | $R+2$ |  | $R+10$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \%pos | median | \%pos | median |
| All | 100\% | 55.81\% | 0.01 | 63.53\% | 0.06 |
| Retiring | 0.65\% | 32.48\% | -0.08 | 34.75\% | -0.06 |
| Retired | 1.48\% | 40.23\% | -0.03 | 45.04\% | -0.02 |

After this point, also exclude those retired post-move.

## By age: $\Delta$ peaks at movers aged 25-35.

| Subgroup | \% of movers | $R+2$ |  | $R+10$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \%pos | median | \%pos | median |
| All | $100 \%$ | 55.81\% | 0.01 | 63.53\% | 0.06 |
| $19 \leq$ age $<25$ | 20.14\% | 55.18\% | 0.02 | 69.28\% | 0.12 |
| $25 \leq$ age < $<35$ | 24.63\% | 61.51\% | 0.03 | 73.50\% | 0.14 |
| $35 \leq$ age $<45$ | 15.00\% | 56.09\% | 0.01 | 63.22\% | 0.05 |
| $45 \leq$ age < 55 | 11.69 \% | 44.52\% | -0.01 | 53.18\% | 0.01 |
| $55 \leq$ age < 65 | 8.77\% | 36.60\% | -0.03 | 43.08\% | -0.02 |
| $65 \leq$ age | 10.90\% | 54.82\% | 0.00 | 46.69\% | -0.00 |

After this point, also exclude $>45$ s.

By income: $\Delta$ falls given initial income.

| Subgroup | \% of movers | $R+2$ |  | $R+10$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \%pos | median | \%pos | median |
| All | 100\% | 55.81\% | 0.01 | 63.53\% | 0.06 |
| \$0 $<$ AGI $<\$ 22,500$ | 17.56\% | 58.67\% | 0.02 | 71.72\% | 0.12 |
| \$22,500 $\leq$ AGI $<\$ 50 \mathrm{k}$ | 13.61\% | 53.89\% | 0.01 | 73.50\% | 0.12 |
| \$50k $\leq$ AGI $<\$ 100 \mathrm{k}$ | 8.49\% | $54.80 \%$ | 0.01 | 70.54\% | 0.09 |
| \$100k $\leq$ AGI | 3.03\% | 39.51\% | -0.02 | 57.98\% | 0.03 |
| this point, also exclude $>$ | $>\$ 100 \mathrm{ks}$. |  |  |  |  |

By household composition: $\Delta$ lower for singles w/dependents

| Subgroup | \% of movers | $R+2$ |  | $R+10$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \%pos | median | \%pos | median |
| All | $100 \%$ | 55.81\% | 0.01 | 63.53\% | 0.06 |
| Single men, no children | 18.90\% | 62.87\% | 0.04 | 75.07\% | 0.13 |
| Single women, no children | 13.27\% | 60.63\% | 0.03 | 71.72\% | 0.13 |
| Single men, 1+ children | 3.18\% | 51.59\% | 0.00 | 55.43\% | 0.03 |
| Single women, 1+ children | 4.85\% | 44.88\% | -0.01 | 56.74\% | 0.03 |
| Married, no children | 5.55\% | 63.60\% | 0.04 | 74.02\% | 0.15 |
| Married, 1+ children | 9.90\% | 61.72\% | 0.03 | 72.25\% | 0.12 |


[^0]:    See working paper for references and details: https://dx.doi.org/10.2139/ssrn. 3501886 This poster is intended to inform discussion of the analysis of tax policy. Views are not necessarily those of the U.S. Treasury

