**Writing May 2021: Parental Resources and Living Standards of Young Households in Shanghai and Urban China.**

**Summary**

My work in the past two weeks involved exploring available data and building generic models. Following the 2004 paper on Chile, I start modeling by targeting a set of common living standard outcomes for households, including husband’s education, income and property ownership. Considering the different geographical spans of the two available datasets (FYRST and CHARLS), initial results were presented in a way contrasting situations in Shanghai and urban countrywide in China. Between results from the two samples, there’s good consistency in education and income predictors but interesting divergency on property ownership and wealth holdings. Discussing the results may help point a few directions for next steps, including adding additional data sources, predictors, analytical framework, etc.

**Data**

One inspiring idea from Fishman’s AJS paper (you have mentioned this before too) was that similar models can be built on different data sets for validation/comparison. After a closer look, FYRST and CHARLS are used for modeling first for priority and convenience, but CHFS and CFPS will be checked further in the next step. See details and notes in the table below.

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| --- | --- | --- | --- | --- |
| Available? | CHARLS | FYRST | CHFS | CFPS |
| Respondent Parental SES (e.g., education) | √ | √ | √ | √ |
| Respondent Parental homeownership | √ | √ |  |  |
| Respondent Parental assets and net worth | √ |  |  |  |
| Spousal Parental SES (e.g., education) |  | √ | [[1]](#footnote-1) | √[[2]](#footnote-2) |
| Spousal Parental homeownership |  | √ |  |  |

At this stage of exploration, we are still on the fence about using one of or all the data sources. Therefore, I tried to not build overly complicated models and focus on common variables that both datasets share. More descriptive details comparing the two samples are shown in Table 1.

Most models are built upon married couples in households, except for models on education which include unmarried males. Therefore, the descriptive summary is based on married couples in the datasets.

* FYRST sampled households in Shanghai with age 24 to 33. Not surprisingly, compared with national average, Shanghai households have a higher level of education and proportion of urban hukou holders among husbands, as well as higher household income. The home ownership rate and total home asset is also remarkably higher than the national sample. Parental wealth in FYRST is proxied by home ownership of the parental household[[3]](#footnote-3).
* To benchmark the sample in FYRST, observations in CHARLS were filtered to people in the same age group 24 to 33[[4]](#footnote-4) , but residing in anywhere urban China. Because the sampling was conducted on parental household, one child from each parental household is randomly selected to ensure sample balance and observation independence. Parental wealth is measured by net worth[[5]](#footnote-5) of the parental household.

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| Table 1. Descriptive statistics for Husbands in married couples. Shanghai and urban nationwide China. | | |
|  | Shanghai | Urban Countrywide |
| N | 1264 | 934 |
| *Husband* |  |  |
| Age | 29.46 ± 3.39 | 30.12 ± 2.31 |
| Years of Schooling | 9.18 ± 3.17 | 11.75 ± 3.81 |
| Attending "Key Point" School | 37% |  |
| Urban Hukou (ref: Rural Hukou) | 60% | 30% |
| Party Member (ref: Not party member) | 9% | 14% |
| Public Sector Occupation (ref: Private) | 23% |  |
| *Household* |  |  |
| Household Income (in CNY 10k) | 12.41 ± 15.01 | 7.13 ± 7.34 |
| *Husband's Father* |  |  |
| Urban Hukou (ref: Rural Hukou) | 49% | 27% |
| Party Member (ref: Not party member) | 15% | 17% |
| Public Sector Occupation (ref: Private) | 25% |  |
| Years of Schooling | 8.82 ± 3.40 | 7.76 ± 3.69 |
| Home Ownership | 45% |  |
| Parental Household Net Worth |  | 65.82 ± 117.39 |
| *Wife's Father* |  |  |
| Years of Schooling | 8.61 ± 3.47 |  |
| *Living Standard Measures* |  |  |
| Vehicle Ownership | 43% |  |
| Second Home Ownership | 42% |  |
| Home Ownership | 75% | 51% |
| Total Home Asset (in CNY 10k) | 228.20 ± 738.99 | 65.59 ± 68.01 |
| Home Ownership | 45% |  |
| Data Source: FYRST2013 for Shanghai; CHARLS2018 for Urban Countrywide. | | |

Following the 2004 paper on Chile, I was able to model a set of outcomes for the child, including education, income and property ownership. Results on these for both Shanghai and nationwide urban China were shown in Table 2.

**Results: Education**

For the generation being modeled, school systems in China has entered a period of privatization, most aggressively at tertiary level. Despite that public schools still take a dominant fraction, increasing tuition and other cost requires more parental investment to facilitate child’s education attainment.

Model 1 and 2 describe the impact on education from parental resources among male respondents. The result between Shanghai and nationwide look similar: aside from education level of the father, institutional status such as urban hukou and party membership seem important to child’s school years completed. Interestingly, parental wealth takes an effect in both models. In addition, model 3 focuses on Shanghai and models whether a child is able to attend “key point” (elite schools), where the impact from parental home ownership remains prevalent.

**Household Income**

Model 4 and 5 measures household income by a set of predictors on the husband as well as his father in a household (and wife’s father in the case of Shanghai data). Apart from the channel of human capital which is shown on the significance of husband’s years of schooling, it seems that parental resources don’t directly impact household income in any way. This result is also consistent between Shanghai/nationwide.

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| Table 2. Parental Resources and Living Standards in Shanghai and Urban Nationwide China. Age 24 - 33. | | | | | |
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|  | Years of Schooling | | "Key Point" School | Household Income (logged) | |
|  | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 |
|  | Shanghai | Urban Countrywide | Shanghai | Shanghai | Urban Countrywide |
| (Intercept) | 10.62 \*\*\* (0.75) | 11.43 \*\*\* (1.21) | -1.54 \* (0.60) | 9.23 \*\*\* (0.42) | 7.15 \*\*\* (0.66) |
| *Husband* |  |  |  |  |  |
| Age | 0.03 (0.02) | -0.09 \* (0.04) | -0.02 (0.02) | 0.02 (0.01) | 0.08 \*\*\* (0.02) |
| Years of Schooling |  |  |  | 0.08 \*\*\* (0.02) | 0.07 \*\*\* (0.01) |
| Urban Hukou (ref: Rural Hukou) |  |  |  | 0.01 (0.11) | 0.04 (0.11) |
| Party Member (ref: Not party member) |  |  |  | 0.13 (0.16) | 0.12 (0.15) |
| Public Sector Occupation (ref: Private) |  |  |  | -0.04 (0.11) |  |
| *Household* |  |  |  |  |  |
| Household Income (logged) |  |  |  |  |  |
| *Husband's Father* |  |  |  |  |  |
| Urban Hukou (ref: Rural Hukou) | 1.14 \*\*\* (0.20) | 1.01 \*\*\* (0.28) | 0.37 \* (0.16) |  |  |
| Party Member (ref: Not party member) | 0.67 \*\* (0.23) | 1.27 \*\*\* (0.31) | 0.35 (0.18) |  |  |
| Public Sector Occupation (ref: Private) | 0.49 \* (0.19) | 0.49 (0.33) | 0.16 (0.15) |  |  |
| Years of Schooling | 0.25 \*\*\* (0.03) | 0.21 \*\*\* (0.03) | 0.09 \*\*\* (0.03) | -0.03 (0.02) | -0.01 (0.01) |
| Home Ownership | 0.78 \*\*\* (0.16) |  | 0.46 \*\*\* (0.13) | 0.31 (0.20) | 0.02 (0.02) |
| Parental Household Net Worth |  | 0.07 \* (0.03) |  |  |  |
| *Wife's Father* |  |  |  |  |  |
| Years of Schooling |  |  |  | 0.05 \* (0.02) |  |
| Home Ownership |  |  |  | 0.07 (0.20) |  |
| N | 1089 | 1233 | 1089 | 1222 | 789 |
| R2 | 0.23 | 0.13 |  | 0.05 | 0.07 |
| Pseudo R2 |  |  | 0.09 |  |  |
| AIC |  |  | 1384.38 |  |  |
| BIC |  |  | 1419.33 |  |  |
| \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05. | | | | | |

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| Table 2 (cont’d). Parental Resources and Living Standards in Shanghai and Urban Nationwide China. Age 24 - 33. | | | | | | |
|  | Vehicle Ownership | Home Ownership | | Total Home Asset (logged) | | Second Home Ownership |
|  | Model 6 | Model 7 | Model 8 | Model 9 | Model 10 | Model 11 |
|  | Shanghai | Shanghai | Urban Countrywide | Shanghai | Urban Countrywide | Shanghai |
| (Intercept) | -5.16 \*\*\* (0.76) | -1.58 \* (0.69) | -6.12 \*\*\* (1.20) | 0.91 \* (0.41) | -0.67 (0.79) | -0.62 (0.80) |
| *Husband* |  |  |  |  |  |  |
| Age | 0.02 (0.01) | 0.02 (0.01) | 0.11 \*\* (0.03) | 0.02 \* (0.01) | 0.00 (0.02) | -0.01 (0.02) |
| Years of Schooling | 0.11 \*\*\* (0.02) | 0.10 \*\*\* (0.03) | 0.05 \* (0.02) | 0.09 \*\*\* (0.02) | 0.09 \*\*\* (0.01) | -0.04 (0.03) |
| Urban Hukou (ref: Rural Hukou) | -0.38 \*\* (0.14) | 0.59 \*\*\* (0.16) | 0.07 (0.18) | 0.31 \*\*\* (0.09) | 0.15 (0.11) | -0.21 (0.16) |
| Party Member (ref: Not party member) | 0.12 (0.20) | -0.10 (0.26) | 0.23 (0.23) | 0.00 (0.12) | -0.01 (0.13) | 0.18 (0.23) |
| Public Sector Occupation (ref: Private) | 0.19 (0.14) | 0.65 \*\*\* (0.18) |  | 0.17 (0.09) |  | 0.02 (0.16) |
| *Household* |  |  |  |  |  |  |
| Household Income (logged) | 0.23 \*\*\* (0.05) | 0.05 (0.04) | 0.29 \*\*\* (0.07) | 0.13 \*\*\* (0.02) | 0.21 \*\*\* (0.04) | 0.12 \*\* (0.05) |
| *Husband's Father* |  |  |  |  |  |  |
| Years of Schooling | -0.02 (0.03) | 0.00 (0.04) | -0.01 (0.02) | 0.01 (0.02) | 0.01 (0.01) | 0.09 \* (0.04) |
| Home Ownership | 0.14 (0.25) | 0.18 (0.31) |  | 0.24 (0.16) |  | 0.83 \*\* (0.30) |
| Parental Household Net Worth |  |  | -0.06 \* (0.02) |  | 0.07 \*\*\* (0.01) |  |
| *Wife's Father* |  |  |  |  |  |  |
| Years of Schooling | 0.04 (0.03) | -0.04 (0.03) |  | 0.01 (0.02) |  | -0.09 \* (0.04) |
| Home Ownership | 0.09 (0.25) | -0.06 (0.30) |  | 0.02 (0.16) |  | 0.11 (0.30) |
| N | 1222 | 1222 | 789 | 916 | 382 | 916 |
| R2 |  |  |  | 0.19 | 0.30 |  |
| Pseudo R2 | 0.10 | 0.10 | 0.09 |  |  | 0.09 |
| AIC | 1604.79 | 1314.55 | 1052.12 |  |  | 1217.58 |
| BIC | 1660.98 | 1370.74 | 1089.49 |  |  | 1270.60 |
| \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05. | | | | | | |
| Data Source: FYRST2013 for Shanghai; CHARLS2018 for Urban Countrywide.  Years of Schooling and "Key Point" School Attendance were measured on males, married or unmarried. Other Targets were measured on husbands in married couples. Total Home Asset and Second Home Ownership were modeled on homeowners only.  Numeric outcomes were modeled with OLS regressions; home, second home and vehicle ownership were modeled with logistic regressions. | | | | | | |
|  | | | | | | |

**Assets**

*Vehicle ownership (Shanghai Only)*

Model 6 describes vehicle ownership for households in Shanghai, where the husband’s education and household income appear to be strong predictors, while parental resources have no significance. This may suggest the acquisition of vehicle falls onto the son’s own shoulders.

*Home ownership*

Difference between Shanghai and urban nationwide starts to emerge in model 7 and 8 targeting home ownership. For Shanghai households, husband’s hukou locality and public sector job seem detrimental, suggesting a strong favor on households with local and public status. Nevertheless, for households sampled from urban nationwide, these seem to play a smaller role, while income seems to be the most important factor. Parental resources appear to be significant in neither model.

*Total home asset value*

If home ownership matters to living standard in the way that homeowners don’t have to pay a rent, total home asset value measures more to the side of asset as a storage of monetary value, which includes primary residence as well as additional homes for some.

In model 9, household income flips to be significant for Shanghai households, different from model 7 on home ownership. Parental home ownership remains insignificant in Shanghai, but the results for urban nationwide in model 10 shows that parental net worth turns to be significant.

*Second home ownership*

In model 11, very interestingly, apart from higher household income, home ownership of the husband’s father is also associated with a higher likelihood of a second home ownership. This suggest that the chance of direct ownership transfer may be more prevalent for second-home owners in Shanghai.

Consolidating findings from the models, parental resources seem to facilitate the life chance of children through human capital and direct transfer of ownership or asset, as opposed to contributing income. In Chinese society where home ownership rate is relatively high, parental asset doesn’t seem particularly influential on helping children acquire a home (same for vehicle). However, children with more wealthy parents are in Shanghai seem to have a higher chance of owning a second home, and parental net worth is also related to child’s home asset in dollar amount for households countrywide. As a speculation, the phenomena of wealth transfer may be more prevalent among middle- and upper-class households, who are seeking to not only own a home, but own a better or second one.

**Next steps**

A few thoughts on what can be done next:

* Discuss which/all datasets to use.
  + Both FYRST and CHARLS have data processing issues to tackle as elaborated previously.
  + CHFS and CFPS needs further exploration. One of them may be added as a “validating” dataset for nationwide sample.
  + If to use multiple datasets, how to align the sample comparability?
* Take advantage of unique variables and construct additional fields.
  + From FYRST, an additional variable measuring the time gap between the time of marriage and the acquisition of property can be constructed and modeled (probably using some survival modeling). Besides, FYRST has variables available for husband’s father/mother and wife’s father/mother, which may be consolidated in a better way than present.
  + CHARLS data was collected at parental level, where many additional predictors are available, such as sibship measures, relationship/transfer between parent/child, different components of parental net worth.
  + Detailed categories can be constructed from variables such as sibship and hukou, then be modeled in a way like how the Fishman’s AJS paper models ethnicity.
* Improve the modeling design. The current modeling specifications are rough with potential better ways (e.g. censored regression to model home value).
* Look for other more detailed research questions.
  + When I think about the alternative question you raised on the impact from government, I found myself largely standing in a tons of literature on hukou. The housing poverty issue in China lies largely among rural migrants as they have been excluded from owning urban housing before the market reform. Even after reform, migrants are not eligible for most housing benefits such as housing provident funds because of hukou status. This was named “categorical inequality” and one way of studying this is to further leverage hukou-related details available in the datasets and maybe model them in a way like Fishman’s paper. A few papers have done similar things.

1. After checking the data, CHFS only provides parental information on the respondent, not the spouse. However, a published paper seems to be able to extract information on the transfer from respondent’s parents to the household in three types: no transfer, down payment, and ownership transfer. I’ve emailed the author to ask for details and he plans to send his Stata codes next week, until when we can see more details on that. [↑](#footnote-ref-1)
2. Need further check into data. The survey investigator put up a notice about missing data on parental fields.

   Update May 16: CFPS2010 has demographics and SES (education, occupation, hukou, party membership) available for all parents in the family. [↑](#footnote-ref-2)
3. This is hopefully not too arbitrary, as home asset takes up over 70% of net worth in a typical Chinese household. [↑](#footnote-ref-3)
4. This operation greatly reduced the sample size, and can be debated. Besides, FYRST was surveyed in 2013, while CHARLS in 2018. So, even though the age group is controlled from a life-course perspective between the two samples, there is still a 5-year time lapse. A more optimistic news is that CHARLS has a wave in 2013 where ideally all variables in 2018 wave is available, which can be leveraged to mitigate this issue. [↑](#footnote-ref-4)
5. Aggregating home, financial, land and fixed assets from 100+ items in questionnaire. [↑](#footnote-ref-5)