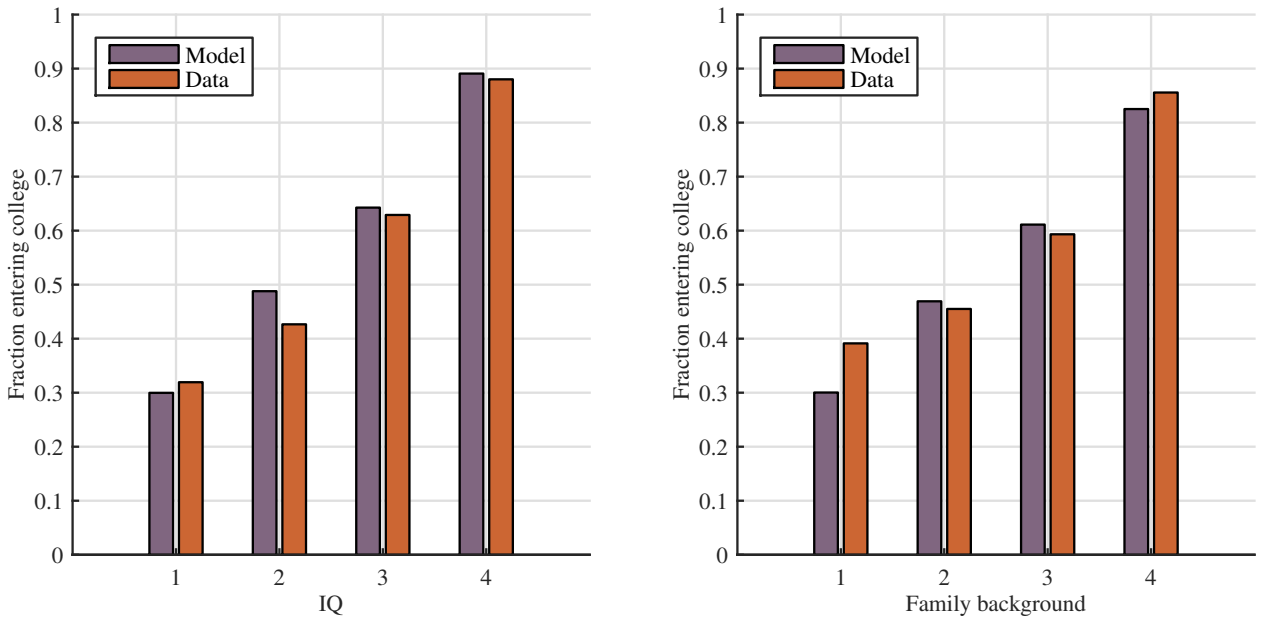
1 Main Results

Note: All results files used in this document are in PaperFigures.

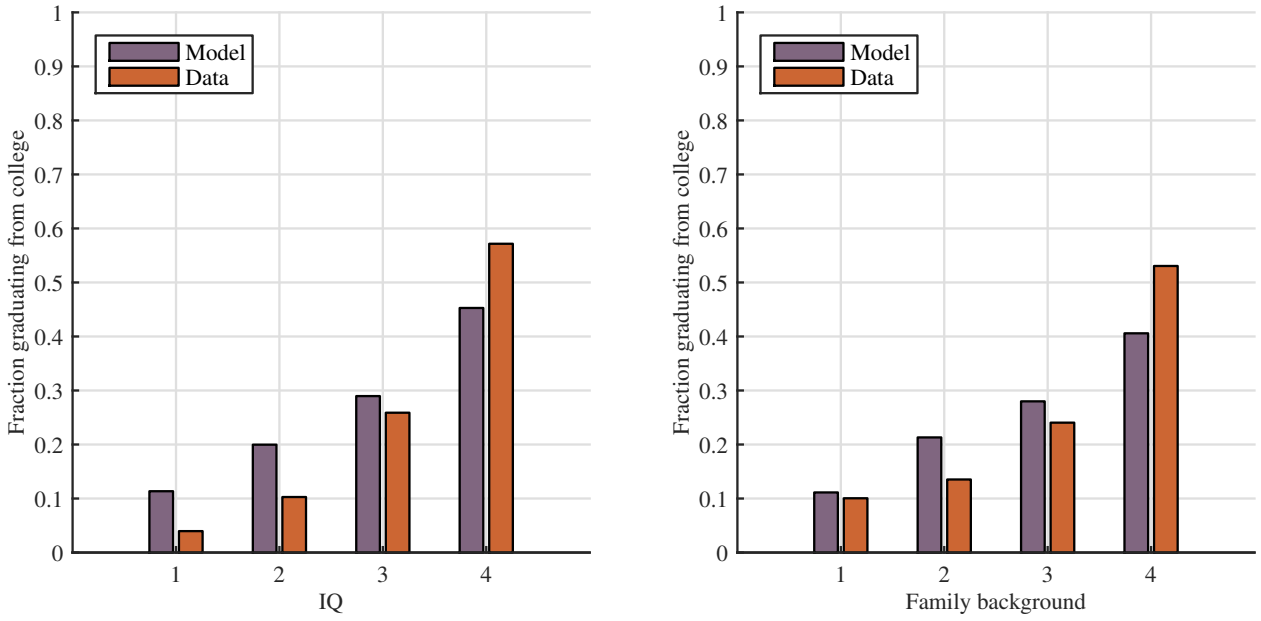
2 Baseline Cohort: NLSY79

2.1 Fit: Entry and Graduation Rates

We do a good job with college entry rates by [iq, yp]. These are conditional on HSG.



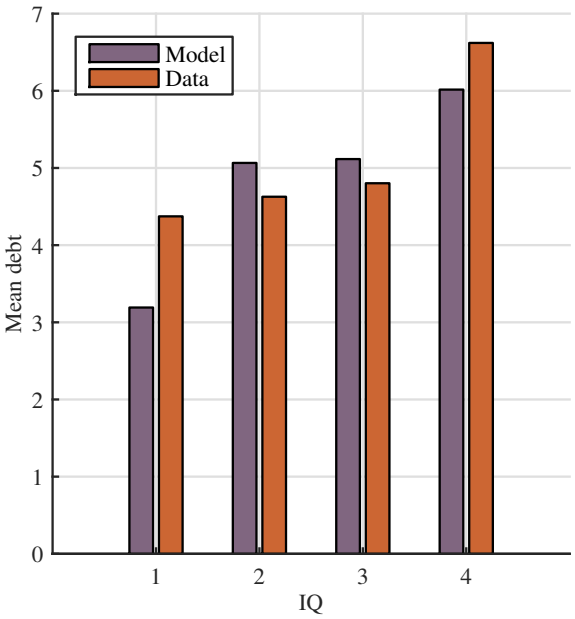
We are also good in terms of β_{IQ} and β_F.
College graduation rates (conditional on college entry) are too flat in [iq, yp]. I don't know why.

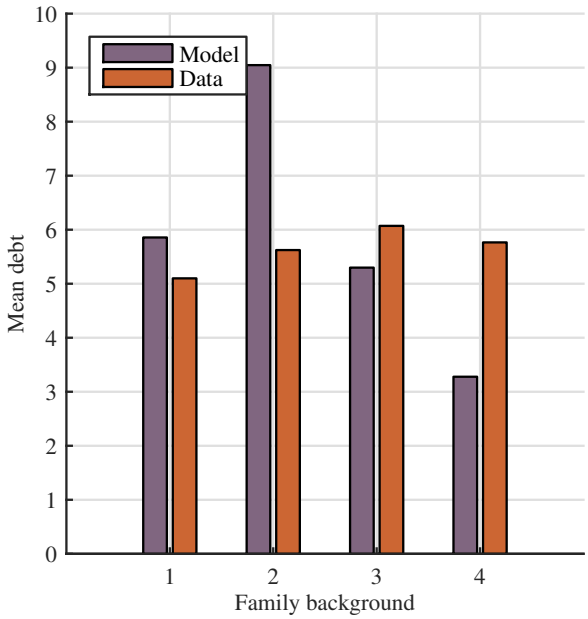


High school graduation rates are too flat in iq, and yp. One might think the model could match those mechanically. For some reason it does not. Not a major issue in my book.

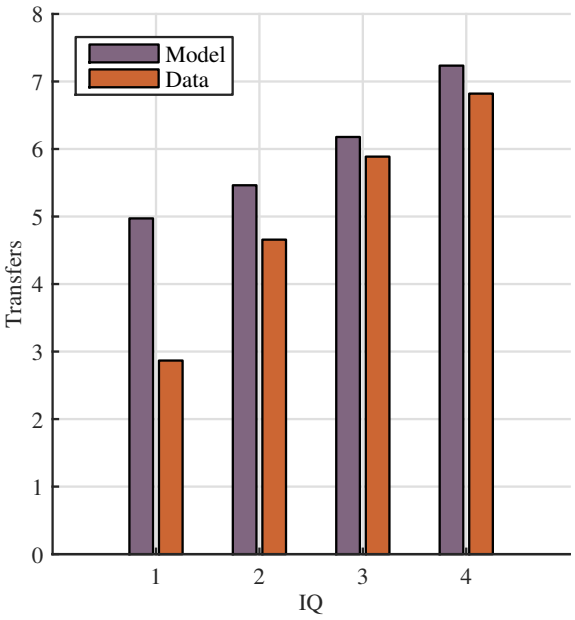
2.2 Fit: Financing

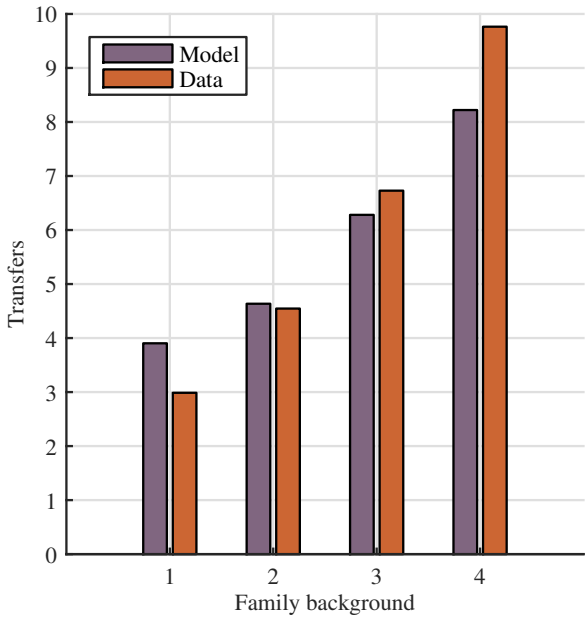
We are in the right ballpark in terms of debt. There is an odd peak for the 2nd yp quartile that I don't understand. Figures show mean debt of college grads at end of college (not conditional on having debt).





We do well in terms of earnings and hours. Although the lowest iq and yp kids work too much. Not a major issue. Transfers look ok to me, but one could argue.





2.3 Fit: Lifetime earnings

No issues here.

Table 1: Fit: Updegraff

Description	Model	Data	Dev
Fraction by schooling	0.33, 0.45, 0.08, 0.14	0.34, 0.46, 0.11, 0.10	0.80
Fraction entering college by IQ quartile	0.09, 0.20, 0.33, 0.54	0.17, 0.23, 0.29, 0.49	0.69
Fraction entering college by y quartile	0.06, 0.22, 0.27, 0.48	0.08, 0.12, 0.30, 0.55	0.88
Fraction graduating high school by y quartile	0.50, 0.60, 0.72, 0.84	0.43, 0.59, 0.79, 0.88	0.60
Fraction graduating high school by IQ quartile	0.42, 0.64, 0.72, 0.88	0.39, 0.61, 0.75, 0.86	0.17
Lifetime earnings CD	7.05	6.91	2.80
Lifetime earnings premiums	-0.34, -0.16, 0.00, 0.20	-0.34, -0.16, 0.00, 0.19	0.03
Mean of college cost	2.45	2.45	0.00
Mean earnings in college	4.34	3.16	2.82
Mean transfer	6.81	7.28	0.11

3 Time Series Calibration

3.1 Updegraff (exp 203)

3.1.1 Fit

Good fit:

- school fractions
- lifetime earnings premiums (oddly the model is off by 15 log points in levels for all s – why?)
- high school graduation rates

Not good:

- college earnings

See Table 1.

3.2 NLSY97 (exp 204)

3.2.1 Fit

Pretty good in most dimensions, I would say.

- The college premium is a bit low (47% versus 60%).
- There are some fit issues with debt, but nothing major

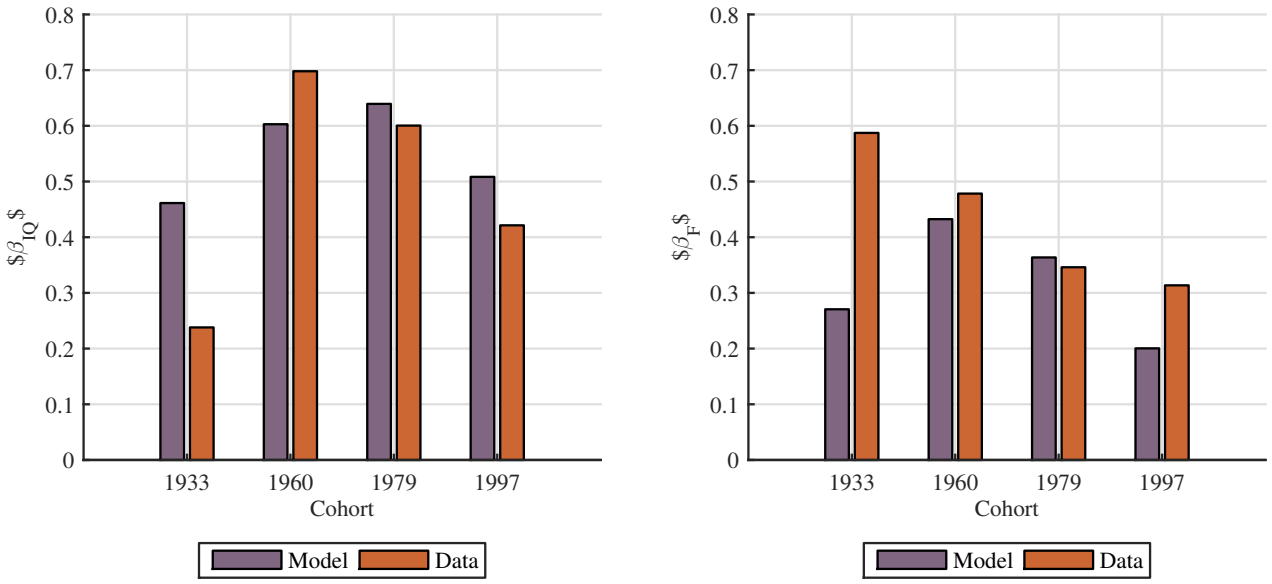
See Table 2.

Table 2: Fit: NLSY97

Description	Model	Data	Dev
Fraction by schooling	0.18, 0.36, 0.19, 0.26	0.18, 0.36, 0.20, 0.27	0.04
School fractions by [s,q]			0.07
School fractions by [s,y]			0.04
Mass HSG+ by [iq, yp]			0.01
Frac enter by [iq, yp]			1.29
Lifetime earnings CD	7.08	7.00	0.88
Lifetime earnings premiums	-0.41, -0.15, 0.00, 0.24	-0.41, -0.15, 0.00, 0.24	0.00
Mean of college cost	2.48	2.48	0.00
Mean earnings in college	4.54	3.16	3.87
Mean transfer	6.41	7.28	0.39

3.3 Changes relative to NLSY79

3.3.1 β_{IQ}, β_F



We account for broad trend in β_{IQ}, but only for a fraction of the rise early / decline later.

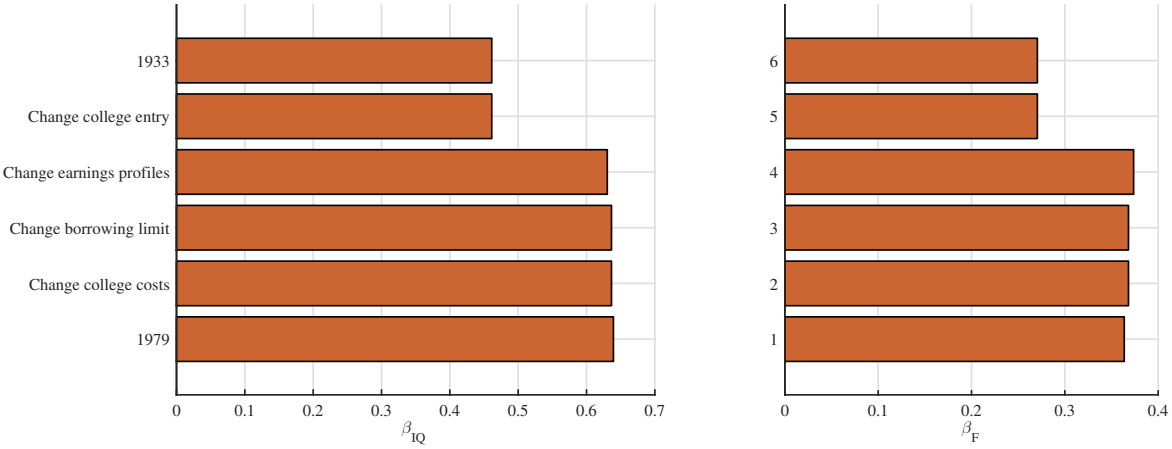
For β_F we really don't have much success.

We can ask why the β change.

To do so, we decompose the changes for each cohort into the contributions of financials and schooling levels.

- We start from NLSY79. Then we change, cumulatively, borrowing constraints, college costs, etc to the levels of the comparison cohort.
- We keep schooling constant by adjusting high school graduation rates and $\bar{\eta}$ (the preference parameter). [Chris suggests to change that. We should do so as an additional experiment]
- We find: financials don't do anything.
- Then we change schooling levels (by setting high school graduation rates and $\bar{\eta}$ to the values calibrated for the comparison cohort). This causes essentially all the changes.

Here is Updegraff as an example:


1933
Change college entry
Change earnings profiles
Change borrowing limit
Change college costs
1979
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
β_{IQ}
6
5
4
3
2
1
0
0.1
0.2
0.3
0.4
β_F

4 eof