Online appendix for "Student Debt Incidence: Recent Data and Conceptual Issues"*

Thomas Phelan†

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This document provides a guide to the replication materials for "Student Debt Incidence: Recent Data and Conceptual Issues". All code is written in Python 3.6.5 and is located at https://github.com/tphelanECON/student_debt_SCF. If you have questions please email Thomas Phelan at tom.phelan@clev.frb.org.

1 Figures

There are four scripts: main, scf_data_clean, scf_figures, and scf_lifetime_wealth. The scripts produce 24 figures. Figures in the *Commentary* and the files upon which they draw:

- Figure 1: BvsNBincome and BvsNBnetworth;
- Figure 2: SDquintileincome and SDquintilenetworth;
- Figure 3: networthmmAGE and incomemmAGE;
- Figure 4: SDquintilelifetime_wealth04.
- Figure 5: cancelincomequintile10000, cancelnetworthquintile10000, cancelincomequintile50000 and cancelnetworthquintile50000.
- Figure 6: cancellifetime_wealthquintile1000004 and cancellifetime_wealthquintile5000004.
- Figure 7: percap_income_debt_count and lifetime_wealth_debt_count04.

*The views stated herein are those of the authors and are not necessarily those of the Federal Reserve Bank of Cleveland or the Board of Governors of the Federal Reserve System.

†Federal Reserve Bank of Cleveland.

In addition to the above 15 figures we have the following 9 supplementary ones:

- distribution of student debt by lifetime wealth for higher interest rates (analogues of Figure 4): SDquintilelifetime_wealth07 and SDquintilelifetime_wealth010.
- distribution of cancellation benefits by lifetime wealth for higher interest rates (analogues of Figure 6): cancellifetime_wealthquintile1000007, cancellifetime_wealthquintile5000007, cancellifetime_wealthquintile10000010 and cancellifetime_wealthquintile50000010.
- debtor counts (analogues of Figure 7 for higher interest rates): lifetime_wealth_debt_count07 and lifetime_wealth_debt_count010, as well as the figure for net worth, percap_networth_debt_count.

2 Code description

The scripts perform the following tasks:

1. main: runs scf_data_clean, scf_figures and scf_lifetime_wealth and creates a figures folder if one does not exist.
2. scf_data_clean:
    - downloads both full public dataset and summary dataset for the 2019 SCF from the Board of Governors website www.federalreserve.gov, keeps variables relevant for student debt and creates dataframes for those with and without student debt.
    - calculates the loans held by each household as well as deciles and quintiles for networth and income for whole population and by age.
    - computes benefits of cancellation for each household.
3. scf_figures: produces the majority of the figures in the *Commentary* (all except the lifetime wealth ones, which have their own script).
4. scf_lifetime_wealth: calculates the quantities relevant for the lifetime wealth calculates and produces the analogous figures.

3 Supplementary figures

Figure 4 in the *Commentary* depicted the average student debt by lifetime wealth, for the benchmark choice of interest rate $r = 4\%$. We claimed in the main text that the qualitative features of the plot was unchanged for higher discount rates. Figure 1 depicts the analogous figures for $r = 7\%$ and $r = 10\%$, and shows that average debt levels are not concentrated in the lowest quintile.

Figure 1: Student Debt by Lifetime Wealth. Source: 2019 SCF and authors' calculations.