THIS CODE BEGINS WHERE THE PREVIOUS ONE ENDS. THE FILE THAT IS LOADED IN THE FIRST COMMAND IS THE ONE THAT WAS SAVED IN THE LAST COMMAND OF THE PREVIOUS PROGRAM. SO, MAKE SURE YOU ARE IN THE SAME DATA DIRECTORY YOU WERE WORKING IN WHILE DOING THE LAST LAB SESSION.

use profiles, clear

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Print graphs to files so they can be checked later (with an image viewing program so it is easy to scroll through the images), or change the code to show each graph one at a time. This is just for evaluation to see if the plots look reasonable.  Comment this out after initial checks.
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

local hhproduction clean laund cook hhmaint lawngar hhmgmt petcare purch chcarehh chcarenhh sechh secnhh elcarehh elcarenhh elcarev trav

foreach vvv in `hhproduction' {
 graph twoway (line `vvv' teage if tesex==1) (line `vvv' teage if tesex==2), xtitle("Age") ytitle("Avg Hrs Per Day") legend(label(1 "Male") label(2 "Female")) title (`vvv')

 graph export check`vvv'timesec.png, replace
}
graph twoway (line tothha teage if tesex==1) (line tothha teage if tesex==2) (line totwk teage if tesex==1) (line totwk teage if tesex==2), xtitle("Age") ytitle("Avg Hrs Per Day") legend(label(1 "Male HHA") label(2 "Female HHA") label(3 "Male WK&REL") label(4 "Female WK&REL") ) title (Total Hours 1)
graph export checktottimesec.png, replace

graph twoway (line tothha teage if tesex==1) (line tothha teage if tesex==2) (line paid teage if tesex==1) (line paid teage if tesex==2), xtitle("Age") ytitle("Avg Hrs Per Day") legend(label(1 "Male HHA") label(2 "Female HHA") label(3 "Male WK") label(4 "Female WK")) title (Total Hours 2)
graph export checktottime2sec.png, replace \*/

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Reshape so that each variable is a different activity and sex.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

reshape wide totwt-totwk,i(teage) j(tesex)
rename teage age
sort age
save profiles, replace
capture rm tudata.csv

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*
Apply imputed wages to calculate annual dollar amounts. (Imputed wages come from labor force survey.) Also want to change time variables into hours per week, so multiply by 7 first.

Code also applies adjustments for quality (some variables are multiplied by .75) and for supplements to wages and income. In the US in 2009, the ratio of [supplements to wages and salaries/ wages and salaries] was .244, so multiplying by 1.244 increases the wages by the amount they would receive as supplements if work was paid for in the market. (The amounts for supplements and wages and salaries come from national accounts.)
\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/
foreach sex in 1 2 {
 foreach vvv in `hhproduction' {
   replace `vvv'`sex'=`vvv'`sex'\*7
 }
 gen clean`sex'\_dol=clean`sex'\*52\*11.33\*.75\*1.244
 gen laund`sex'\_dol=laund`sex'\*52\*10.43\*.75\*1.244
 gen cook`sex'\_dol=cook`sex'\*52\*10.04\*.75\*1.244
 gen hhmaint`sex'\_dol=hhmaint`sex'\*52\*17.08\*.75\*1.244
 gen lawngar`sex'\_dol=lawngar`sex'\*52\*13.15\*.75\*1.244
 gen hhmgmt`sex'\_dol=hhmgmt`sex'\*52\*24.59\*1.244
 gen petcare`sex'\_dol=petcare`sex'\*52\*10.50\*1.244
 gen purch`sex'\_dol=purch`sex'\*52\*11.87\*1.244
 gen chcarehh`sex'\_dol=chcarehh`sex'\*52\*13.42\*1.244
 gen chcarenhh`sex'\_dol=chcarenhh`sex'\*52\*13.42\*1.244
 gen sechh`sex'\_dol=chcarehh`sex'\*52\*13.42\*1.244
 gen secnhh`sex'\_dol=chcarenhh`sex'\*52\*13.42\*1.244
 gen elcarehh`sex'\_dol=elcarehh`sex'\*52\*17.85\*1.244
 gen elcarenhh`sex'\_dol=elcarenhh`sex'\*52\*17.85\*1.244
 gen elcarev`sex'\_dol=elcarev`sex'\*52\*17.85\*1.244
 gen trav`sex'\_dol=trav`sex'\*52\*11.51\*1.244
 egen tothha`sex'\_dol=rowtotal(clean`sex'\_dol laund`sex'\_dol cook`sex'\_dol hhmaint`sex'\_dol lawngar`sex'\_dol hhmgmt`sex'\_dol petcare`sex'\_dol purch`sex'\_dol chcarehh`sex'\_dol chcarenhh`sex'\_dol sechh`sex'\_dol secnhh`sex'\_dol elcarehh`sex'\_dol elcarenhh`sex'\_dol elcarev`sex'\_dol trav`sex'\_dol)
}
save profiles, replace

graph twoway (line tothha1\_dol age) (line tothha2\_dol age), xtitle("Age") ytitle("Avg $ Per Year") legend(label(1 Male) label(2 Female)) title (Total Ann'l HH Activities)
graph export smoothcheck\_tothh\_dolsec.png, replace
gen tottime1=(tothha1+paid1)\*7
gen tottime2=(tothha2+paid2)\*7
graph twoway (line tottime1 age) (line tottime2 age), xtitle("Age") ytitle("Hrs per Week") legend(label(1 Male) label(2 Female)) title (Total Paid and HH Activities)