AN ANALYSIS OF US HOUSEHOLD SOCIOECONOMIC PROFILES BASED ON MARITAL STATUS AND GENDER

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ABSTRACT

Previous studies have reported that there are significant differences in income and wealth based on marital status and marital history (Wilmoth & Koso, 2002; Gustman & Juster, 1995; Seigel, 1993; Holden & Kuo, 1996). This paper first examines the separate effects of marital status and gender on the socioeconomic profiles of US households, and then explores the combined effect of the interaction of gender and marital status on those profiles. As expected, the results show that married head of household (HH) families are financially better off than single HH families. However, when gender is introduced, it seems to subtract from the gains of marriage. A married female HH is significantly worse off than married male HH, and is closer to single female HH in income. Furthermore, married female HH has less net worth than single male HH. Single female HH group has lowest income and wealth of all groups and this group constitutes about 22.5% of all households. Single female HH is also the 2nd largest group with children in the US, and due to their relatively low economic resources, these households often struggle with reduced quality of life and educational opportunities. This toxic combination increases the risks of continued inequality and inter-generational propagation of poverty. The most interesting findings are the results of the OLS regression models. They show that while demographic variables such as gender and marital status have significant correlation with wage income, household income and net worth, they are considerably less significant than age and education. Finally, all the demographic correlates (age, education, gender, marital status, etc.) pale in comparison to the influence of wage income and household income on net worth. So, if one is interested in policy prescriptions, substantive analysis should consider all these variables in a real world context, and imagine the scenarios where it would be more effective to enact policy measures for helping with opportunity and inequality.

INTRODUCTION AND SELECTED BACKGROUND LITERATURE

Wealth inequality in the US has been increasing in fits and starts since the 1930s and particularly since the 1980s (Wolff, 1992). Increasing wealth inequality in the United States is driven by the top tail of the distribution becoming increasingly wealthy, resulting in a long tail of those with low or negative wealth (Diaz-Gimenez, Glover & Rios-Rull, 2007). Americans desire less inequality than currently exists (Norton & Ariely, 2011). The social and political implications of wealth inequality extend beyond wealth accumulation (Neill Hoch & Mohan-Neill, 2013).

Wolff (1998) argues that "in a representative democracy, the distribution of power is often related to the distribution of wealth." Likewise, social and political factors that contribute to the unequal distribution of income and wealth are varied and interlocking. For these reasons, it is important to understand the demographic populations that currently show signs of difficulty in accumulating wealth.

Family structure has been shown to correlate with wealth. Married households, with or without children, are wealthier than single households (Diaz-Gimenez et al., 2007). Those married continuously are wealthier than those who have had a marriage dissolve, either by divorce or death (Wilmoth & Koso, 2002). Remarriage mitigates some of the losses accrued by marriage dissolution, but not all. Single individuals who have never married see less wealth accumulation than do those who have been married and reaped the benefits of pro-marriage policy for at least part of their lives. Cohabitation with a partner does not show similar benefits to marriage (Wilmoth & Koso, 2002). Cohabitating, non-married partners (also called Living with Partner or LWP) may share some expenses, but such sharing does not translate into increased wealth accumulation over time. Notably LWP cohabitation does not carry the same tax and policy advantages that marriage does. Women who have never been married see an 86% reduction in their overall wealth, pre-retirement, as compared to men who see a 61% reduction (Wilmoth & Koso, 2002), suggesting a gender bias in wealth accumulation.

Changes in family structure may contribute to increased inequality (Esping-Anderson, 2007; McLanahan, 2004). Single parent households have increased over time, from both never married individuals raising children and marriage dissolution. Single females with children may have increased the number of low income households (McCall & Percheski, 2010). Single females with children see the greatest intragroup income inequality of all family structures (Diaz-Gimenez, Glover & Rios-Rull, 2007). McCall and Percheski (2010) argue that there is "strong support for the hypothesis that increases in single mother families and decreases in married couple families have increased income inequality (p. 337). Wilmoth & Koso's (2002) findings that women, with or without children, see a significant reduction in wealth when they remain unmarried, supports the idea that marriage encourages wealth accumulation. Because LWP has not shown to produce similar benefits, it may be that policy benefits awarded to married couples that are not extended to cohabitating couples encourage wealth accumulation.

The wealthy are more educated (Diaz-Gimenez et al., 2007). However, education alone does not always translate to increased wealth. When considered with age, the young educated tend to have little wealth as they pay back debt acquired during schooling or establishing their households. Wealth being strongly correlated with education should not be taken as a magic bullet for addressing wealth inequality. While education increases earning potential, such education may not translate to financial literacy and increased saving behavior (Lusardi & Mitchell, 2007). In education, as in other variables, contribution to wealth accumulation interlocks with additional variables. There is no straight path to predicting wealth.

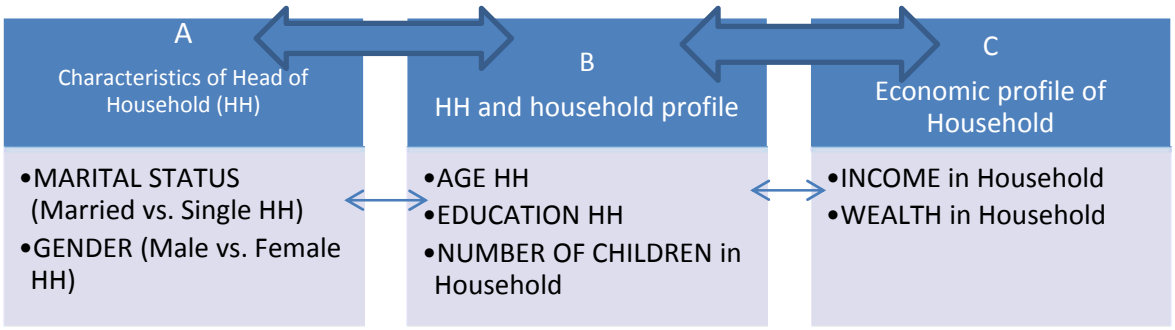
A recent Pew Research study has explored changes in household economics (between 1970 and 2007) as it relates to gender and marital status (Fry & Cohn, 2010). This paper utilizes more current (2010) Federal Reserve's Survey of Consumer Finances (SCF) data to evaluate the profiles of households based on marital status and gender differences. In particular, it will examine the

correlation of those variables with age, education and number of children, income (wage and household), and wealth (net worth).

DATA AND MEDTHODOLOGY

Figure 1 illustrates the variables and relationships which will be analyze and tested in this paper. *Marital status* and gender of head of household (*gender HH*) are the two variables which will be used to compare differences in profiles of US households.

Figure 1. Relationships Analyzed in Model



Research Questions

This paper will address the following specific research questions concerning the demographic and economic status of US households in 2010:

1. What is the impact of *marital status* on household socioeconomic profiles? Using *marital status* as an independent classification variable, it will compare the differences in profiles of *single head of household (HH)* versus *married HH*, with respect to age, education, number of children, income and wealth. It will also test whether the differences in profile variables (e.g., age, education, number of children, HH income, and net worth) of *single HH* versus *married/LWP* households are statistically significant.
2. What is the impact of *gender* on household socioeconomic profiles? Using *gender of HH* as an independent classification variable, it will compare the differences in profiles of *male (HH)* versus *female HH* families, with respect to age, education, number of children, HH income and net worth. It will also test whether the differences in profile variables (e.g., age, education, number of children, HH income, and net worth) of *male HH* versus *female HH* households are statistically significant.
3. What is the impact of *marital status* and *gender* simultaneously on household socioeconomic profiles? It will examine the combined effect of *marital status* and *gender* and compare the differences in profiles of households with respect to age, education, number of children, income and wealth.

4. What are the societal and personal implications, with respect to the current state and trajectory of US household socioeconomic stratification?

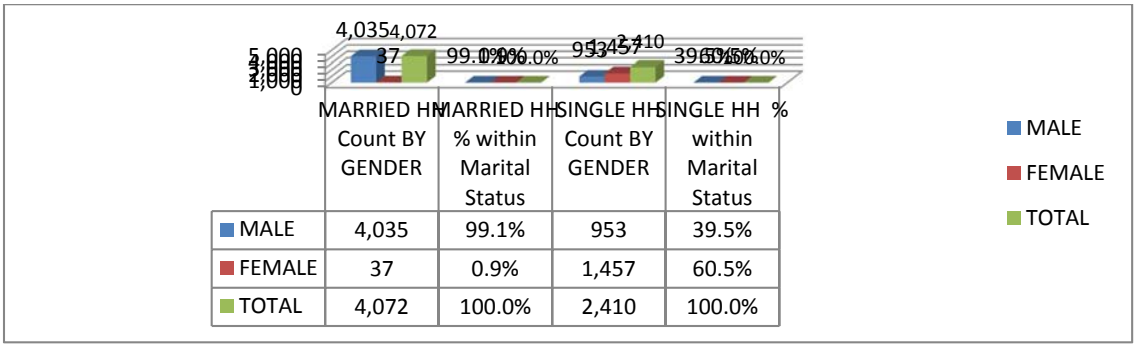
Data and Sample

The data source is the Survey of Consumer Finances (SCF) 2010, which was collected on behalf of the Federal Reserve (http://www.federalreserve.gov/econresdata/scf/scfindex.htm). The SCF survey is conducted every three years (2010 is the latest available dataset).

The sample is comprised of 6,482 households; a little less than two-thirds (62.8%) of SCF sample is classified as "*married HH"*. So, more than one-third of sample US households are classified as "*single HH"* (37.2%). Approximately 23% of all households are headed by a *female HH,* and 77% have a *male HH*. This paper will examine the impact of *marital status* and *gender* separately and then explore the magnitude of their combined effects on household socioeconomic profile and prospects.

Figure 2 illustrates the frequency distributions of household when *marital status* and *gender* are classification variables. The majority of *married HH* are headed by *male HH* (99.1%) and less than 1% is *female HH*. There are more *female HH* in *single HH* (about 60%) compared to about 40% *male HH* in the *single HH marital status* category.

Figure 2. Frequency Distribution of Households by *Marital Status* and *Gender*



The following variables are examined in this study:

1. *Marital status*: (a) Single, not married nor LW P (living with partner, (b) Married, married or LWP (living with partner).
2. *Gender* (Head of household): (a)Male, (b) Female
3. *Age* (HH): reported in years and also in age categories
4. *Education* (HH): reported in years and also in categories
5. *Number children inclusive in household.*
6. *Income:* (last 12 months household income in dollars) which is the total amount of wages (i.e. wage income), investments, transfers etc.
7. *Wage Income* (HH in dollars): included in *Income* (6)
8. *Net worth* (wealth in dollars): All assets minus all debts

Both mean and median values of central tendency will be reported in this paper. However, due to the large variance in some economic variables, median values are the preferred measure to

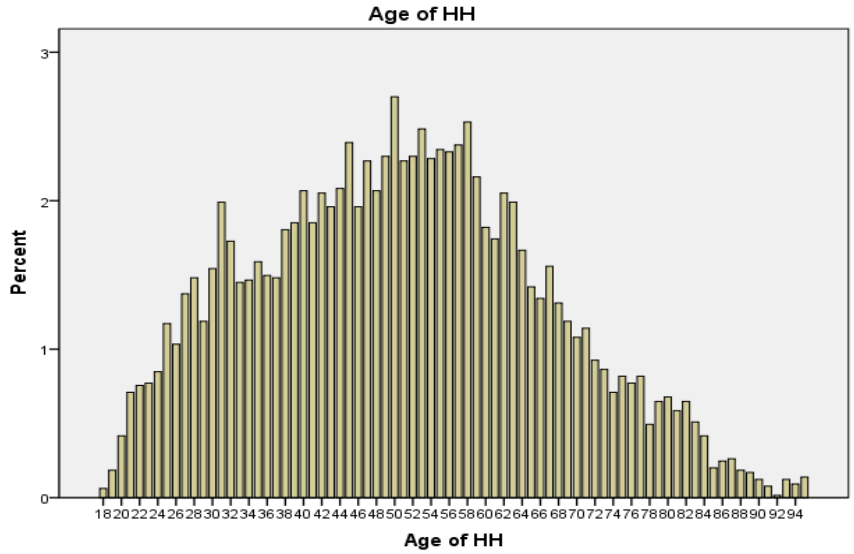
reflect the central tendency of groups. For example, the very large variance in variables such as income and wealth within the same categories highlight the great differences (i.e. inequality) in measures such as income and wealth. Median values are used to characterize the profile of different groups in the overall discussion. However, the mean values of all variables are also given in tables to illustrate that while the mean and median values are similar in some measures such as education, the differences in income and wealth between those groups are sometimes quite large due to variance in those economic measures.

EMPIRICAL RESULTS

Descriptive Statistics

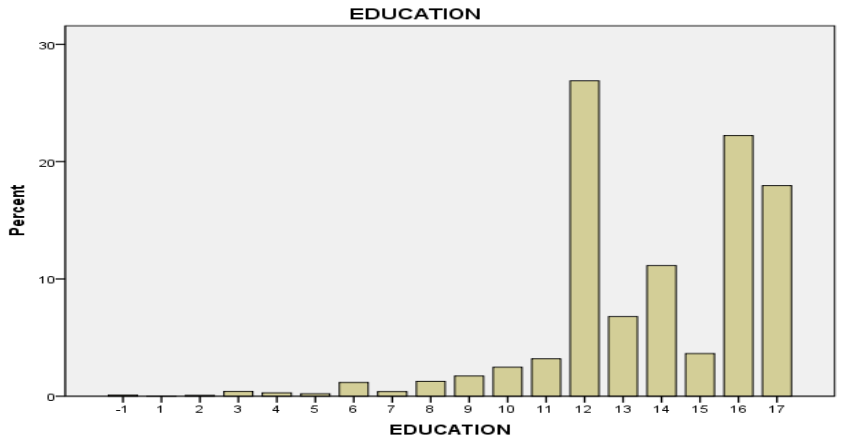
Distributions of age, education, income and net worth will be illustrated in Figures 3, 4, 5 and 6.

Figure 3. Distribution of Age (Years)



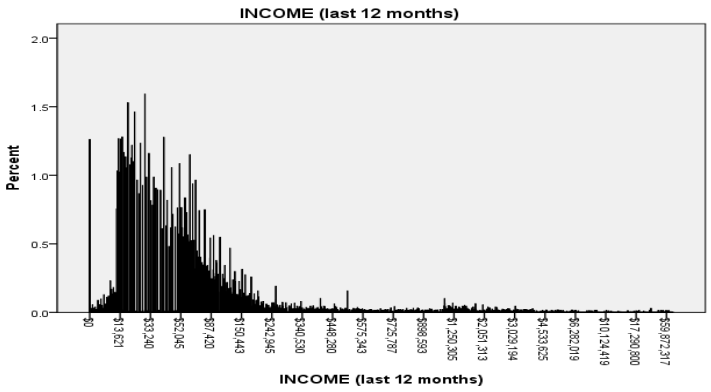
Mean		50.69
Median		50
Mode		50
Std. Dev.		15.88
Skewness		0.197
Kurtosis		-0.54
Range		77
Minimum		18
Maximum		95
Percentiles	20	36
	40	46
	60	55
	80	64

Figure 4. Distribution of Education (Years)



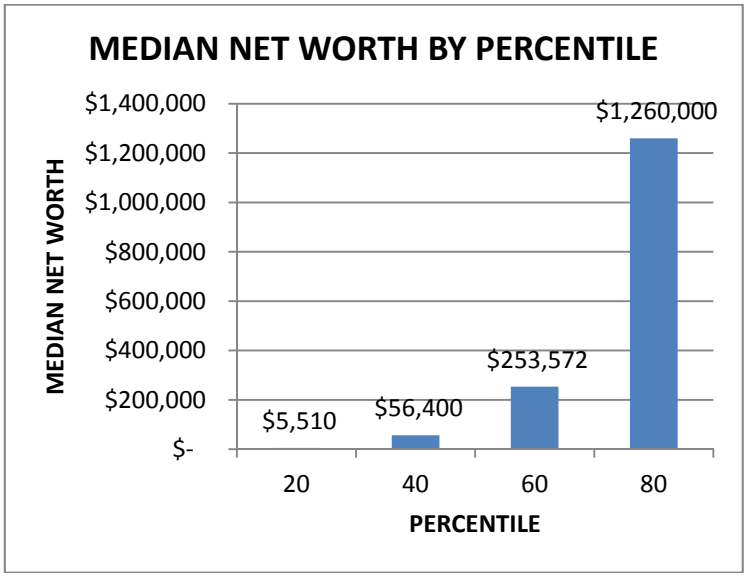
Mean		13.81
Median		14
Mode		12
Std. Dev.		2.739
Skewness		-1.03
Kurtosis		1.881
Minimum		-1
Maximum		17
Percentiles	20	12
	40	13
	60	16
	80	16

Figure 5. Distribution of Income ($)



Mean		$ 612,774	
Median		$ 55,908	
Mode		$ 30,495	
Std. Dev.		$ 6,075,000	
Skewness		$ 35	
Kurtosis		$ 1,646	
Range		$361,368,571	
Minimum		$ -	
Maximum		$361,368,571	
Percentiles	20	$ 22,363	
	40	$ 41,677	
	60	$ 71,156	
	80	$ 158,575	

Figure 6. Distribution of Net Worth ($)



NETWORTH

Mean		$ 7,340,000
Median		$ 124,355
Mode		$ -
Std. Deviation		$ 43,150,000
Skewness		$ 12
Kurtosis		$ 183
Range		$1,000,000,000
Minimum		$ (6,932,400)
Maximum		$1,000,000,000
Percentiles	20	$5,510
	40	$56,400
	60	$253,572
	80	$1,260,000

Differences Based On *Marital Status* of HH in US Households

Table 1. Household Socioeconomic Profiles based on Marital Status of HH
(Comparison of Married versus Single HH)

MARITAL STATUS		Age (years)	No of Children)	EDUCATION (years)	INCOME (last 12 months)	NET WORTH
MARRIED=Married	Mean	50.96	1.10	14.03	$826,238	$10,500,000
Or LWP (62.8%)	Median	50.89	.83	14.56	$81,227	$268,700
SINGLE=Unmarried	Mean	50.24	.52	13.44	$252,099	$2,000,000
Nor LWP (37.2%)	Median	49.71	.34	13.28	$29,454	$30,020
Total	Mean	50.69	.89	13.81	$612,774	$7,340,000
(100%)	Median	50.51	.61	13.93	$55,754	$124,355

Summary of findings based on Differences in HH Marital Status

Based on the results reported in Table 1, the following comparisons highlight the differences based on *marital status* of HH. Table 2 summarizes the test for statistical significance for differences in median and mean values.

1. Age: *single HH* are younger (median age=49.7 vs. 50.9 years) than *married HH* by 2.2 years.
2. Education: *single HH* are less educated (median education=13.3 vs. 14.6 years) than *married HH* by 1.3 years.
3. Number of children: *single HH* have fewer children (mean=0.52 vs. 1.10) *than married HH,* or about 50% less children or a 1:2 ratio.
4. Income: *single HH* have less income (median=$29,400 vs. $ 81,200) than *married HH*, So, *single HH* median income is approximately 36% of *married HH* median income
5. Net worth or wealth: *single HH* have less *net worth* or wealth (median=$30,000 vs. $268,700) for *married HH*, So, *single HH wealth* is approximately 11% of *married HH wealth* or net worth.

Table 2 summarizes the results of non-parametric testing of differences between median values based on *marital status,* and also the differences in mean values (t-tests). For hypothesized differences, the results reveal statistical significance for 1) age of HH, 2) education, 3) number of children, 4) income, 5) wage income, and 6) net worth.

Table 2. Results of non-parametric test of median differences and mean differences (t-test) based on *Marital Status*				
VARIABLE	MEDIAN COMPARISON RESULTS	SIG.	MEAN COMPARISON RESULTS	SIG.
1. AGE	Single < Married	Yes	Single < Married	Yes
2. EDUCATION	Single < Married	Yes	Single < Married	Yes
3. NUMBER OF CHILDREN	Single < Married	Yes	Single < Married	Yes
4. INCOME	Single < Married	Yes	Single < Married	Yes
5. WAGE INCOME	Single < Married	Yes	Single < Married	Yes
6. NET WORTH	Single < Married	Yes	Single < Married	Yes

Differences in Socioeconomic Profiles of US Households based on Gender of *HH*

Table 3.Comparison of Household Profiles based on *Gender* (Male vs. Female HH)							
Gender of HH (Head of Household)			HH Age (years)	No. Children (inclusive)	Years HH EDUCATION	INCOME (last 12 months)	NET WORTH
	Male 77%	Mean	50.4	.93	14.0	$ 779,759	$ 9,373,940
		Median	**50.4**	**.65**	**14.4**	**$ 69,534**	**$ 196,280**
	Female 23%	Mean	51.5	.73	13.3	$ 55,263	$ 558,410
		Median	**50.8**	**.50**	**13.1**	**$ 26,853**	**$ 23,250**
	Total 100%	Mean	50.7	.89	13.8	$ 612,774	$ 7,342,098
		Median	50.5	.61	13.9	$ 55,755	$ 124,355

Summary of Findings based on Differences in HH Gender

Based on the results reported in Table 3, the following comparisons highlight the differences based on *Gender of HH*. Table 4 summarizes the test for statistical significance for differences in median values.

1. Age: *female HH* are slightly older (median age=50.8 vs. 50.4 years) than *male HH* and the difference is statistically insignificant (Table 3).
2. Education: *female HH* are less educated (median education=13.1 vs. 14.4 years) than *male HH* by 1.3 years.
3. Number of children: *female HH* have fewer children (median=0.5 vs. 0.65) compared to *male HH*.
4. Income: *female HH* have less income (median=$26,900 vs. $ 69,500) than *male HH*, So, female *HH* median income is approximately 39% of *male HH* median income.
5. Net worth or wealth: *female HH* have less *net worth* or wealth (median=$23,300 vs. $196,300) for *male HH*, So, *female HH wealth* less than 12% of *male HH wealth* or net worth.

Table 4. Results of non-parametric test of median differences and mean differences (t-test) based on *Gender*				
VARIABLE	MEDIAN COMPARISON RESULTS	**SIG.**	MEAN COMPARISON RESULTS	**SIG.**
1. AGE	No sig. difference	**No**	Female < Male	**Yes**
2. EDUCATION	Female < Male	**Yes**	Female < Male	**Yes**
3. NUMBER OF CHILDREN	Female < Male	**Yes**	Female < Male	**Yes**
4. INCOME	Female < Male	**Yes**	Female < Male	**Yes**
5. WAGE INCOME	Female < Male	**Yes**	Female < Male	**Yes**
6. NET WORTH	Female < Male	**Yes**	Female < Male	**Yes**

THE COMBINED INFLUENCE OF MARITAL STATUS AND GENDER

Table 5 illustrates the differences when *gender of HH* is introduced as second classification variable. Based on Figure 2 less than 1% of *married HH* has a *female HH*. In some instances, the magnitude of differences is quite stark.

Table 5. The Simultaneous Influence of *Marital Status* and *Gender of HH*						
HH GROUP% OF N		AGE of HH	# of Children	EDUCATION	INCOME	NET WORTH
MARRIED Male (62.2 %)	Mean	51.0	1.11	14.0	$ 832,954	$ 10,595,386
	Median	51.0	.83	14.6	$ 81,441	$ 271,244
MARRIED Female (0.6%)	Mean	44.2	.73	13.6	$ 93,867	$ 826,731
	Median	44.0	.52	14.2	$ 35,324	$ 15,570
MARRIED TOTAL (62.8%)	Mean	51.0	1.10	14.0	$ 826,238	$ 10,506,623
	Median	50.9	.83	14.6	$ 81,228	$ 268,700
SINGLE Male (14.7%)	Mean	48.0	.20	13.7	$ 554,532	$ 4,202,340
	Median	48.1	.14	13.7	$ 34,476	$ 42,600
SINGLE Female (22.5%)	Mean	51.7	.73	13.3	$ 54,283	$ 551,596
	Median	51.1	.50	13.0	$ 26,739	$ 23,475
SINGLE TOTAL (37.2%)	Mean	50.2	.52	13.4	$ 252,099	$ 1,995,231
	Median	49.7	.34	13.3	$ 29,454	$ 30,020
Male TOTAL 76.9%	Mean	50.4	.93	14.0	$ 779,759	$ 9,373,940
	Median	50.4	.65	14.4	$ 69,534	$ 196,280
Female TOTAL 23.1%	Mean	51.5	.73	13.3	$ 55,263	$ 558,410
	Median	50.8	.50	13.1	$ 26,853	$ 23,250
Total SAMPLE	Mean	50.7	.89	13.8	$ 612,774	$ 7,342,098
100%	Median	50.5	.61	13.9	$ 55,755	$ 124,355

In *married HH* households the following comparisons are observed based on *gender of HH*:

1. Age: *married-female HH* are younger (median age= 44.0 vs. 51.0 years) than *married-male HH* by 7 years, which is about 14% younger.
2. Education: *married-female HH* have less education (median education=14.2 vs. 14.6 years) compared to *male-married HH* by 0.4 years or about a 3% difference.
3. Number of children: *married-female HH* have fewer children (mean=0.73 vs. 1.10) than *married-male HH*, so an approximately 2:3 ratio of children, which is about 33% less.

4. Income: married-female *HH* have less income (median=$35,300 vs. $81,400) than *married-male HH*. So, *married-female HH* median income is approximately 43% of *married male-HH* median income.
5. Net worth of wealth: *married-female HH* have less *net worth* or wealth (median=$15,600 vs. $271,200) than *married-male HH*, So*, married-female HH* median *net worth* or wealth is less than 6.0% of married-male HH median net worth or wealth.

In *single HH* households the following comparisons are observed based on *gender of HH*:

1. Age: *single-female HH* are older (median age= 51.1 vs. 48.1 years) than *single-male HH*, or 6% older.
2. Education: *single-female HH* have less education (median education=13.1 vs. 13.7 years) compared to *single-male HH* by 0.6 years. This is about 4% less education.
3. Number of children: *single-female HH* have more children (mean=0.73 vs. 0.20) than *single-male HH*. So, *single-female HH* have approximately 3.7:1 ratio of children, or almost 4 times the number of children for *single-male HH*.
4. Income: *single-female HH* have less income (median=$26.700 vs. $34,500) than *single-male HH*. *Single-female HH* median income is approximately 77% of single-male HH median income.
5. Net worth or wealth: *single-female HH* have less *net worth* or wealth (median=$23,500 vs. $42,600) than *single-male HH*. So, *single-female HH* median net worth or wealth is approximately 55% of *single-male HH* median *net worth* or wealth.

Figure 7. Comparative Summary of Socioeconomic Profiles of Four HH Groups Based on Marital Status and Gender

GROUP 1=MM **MARRIED Male** *(62.2% of sample)*	**GROUP 2=MF** **MARRIED Female** *(0.6% 0f sample)*	**GROUP 3=SM** **SINGLE Male** *(14.7% of sample)*	**GROUP 4=SF** **SINGLE Female** *(22.5% of sample)*
Age = 51.0 years Children= 1,11 (mean) Education= 14.6 years Income= $ 81,400 Net Worth= $ 271,200	Age = 44.0 years Children= 0.73 (mean) Education= 14.2 years Income= $ 35,300 Net Worth= $ 15,600	Age = 48.1 years Children= 0.20 (mean) Education= 13.7 years Income= $ 34,500 Net Worth= $ 42,600	Age = 51.1 years Children= 0.73 (mean) Education= 13.0 years Income= $ 26,700 Net Worth= $ 23,500
Highest income Highest wealth Most educated Highest number of children 2nd oldest group ***** Most Favorable Economic profile of 4 groups.**	Much less income than MM; close to SM Much less wealth than MM Less wealth than even SM 2nd highest Education Children 2nd and tied with SF	SM Single Male HH is better off than Single Female and close to or better off than Married Female HH. Least children	Worst economic profile Single has lowest income and wealth. Also is the oldest group 2nd highest group with child; tied with MF Lowest education ***Worst Economic Profile of 4 groups

SUMMARY OF OLS REGRESSION MODELS

Table 6 summarizes the OLS regression models for *wage income* (Model 1) and *income* HH (Model 2).

Table 6. OLS Regression Model Results for Wage Income and Income

Y= WAGE INCOME (1) Y=INCOME (2)	WAGE INCOME (MODEL 1)		INCOME (MODEL 2)	
X_i	t	Sig	t	sig
X_1 EDUCATION	10.8	0.000	13.9	0.000
X_2 AGE	3.3	0.001	7.3	0.000
X_3 GENDER	-2.5	0.011	-4.4	0.000
X_4 MARITAL STATUS	-2.5	0.012	-1.8	0.071
Adjusted R^2	**0.006**		**0.01**	
F statistic	**47.1**	**0.000**	**85.6**	**0.000**

Influences on Wage Income (Model 1)

$$Y_{\text{(Wage Income)}} = a + bX_{1\text{ (Education)}} + cX_{2\text{(Age)}} + dX_{3\text{(Gender)}} + eX_{4\text{(Marital Status)}}$$

The OLS regression model for *wage income* (Model 1; Table 6) evaluates the influence of education, age, gender and marital status of HH. All four demographic variables have a significant influence or correlation with *wage income*. The relative influence is as follows: education has the strongest positive (t=10.8), and age is 2nd (t=3.3); both gender (t= -2.5) and marital status (t= -2.5) have significant, but negative influences on *wage income*. So, more educated and older HH are correlated to higher *wage income*, but female and single HH are correlated to lower *wage income*.

Influences on HH Income (Model 2)

$$Y_{\text{(Income)}} = a + bX_{1\text{ (Education)}} + cX_{2\text{(Age)}} + dX_{3\text{(Gender)}} + eX_{4\text{(Marital Status)}}$$

The OLS regression model for HH *income* (Model 2; Table 6) evaluates the influence of education, age, gender and marital status of HH. Three out of four demographic variables have a significant influence or correlation with HH *income*. The relative influence is as follows: education has the strongest positive (t=13.9), and age is 2nd (t=7.3); gender has a negative and significant influence on HH *income* (t= -4.4). Marital status also has a negative correlation with *income* but it is not significant (t= -1.8). So, more educated and older HH are correlated to higher HH *income*, but female HH is correlated to lower *income*. The insignificant influence of marital status may be due to the high correlation between gender and marital status. Less than 1% of married households have a female HH, and more than 60% of single households have a female HH (Figure 2).

Table 7 summarizes the OLS regression models for *Net Worth* (Model 3, 4, & 5) using different configurations of explanatory variables.

Influences on Net Worth (Model 3)

$$Y_{(\text{Net Worth})} = a + bX_{1\,(\text{Education})} + cX_{2(\text{Age})} + dX_{3(\text{Gender})} + eX_{4(\text{Marital Status})}$$

Table 7. OLS Regression Model Results for Net Worth

Y (NET WORTH) = f (X_i + …..	**MODEL 3 Net Worth = f (Demographics)**	**MODEL 4 Net Worth = f (Demographics + Wage Income)**	**MODEL 5 Net Worth = f (Demographics + Income)**
X_i	t	t	T
X_1 EDUCATION	22.7 ***	20.6 ***	18.1 ***
X_2 AGE	21.2 ***	21.1 ***	20.4 ***
X_3 GENDER	**-5.4 ****	**-4.9 ****	**-3.6 ****
X_4 MARITAL STATUS	**-7 ****	**-6.6 ****	**-7.1 ****
X_5 INCOME	***omit***	***omit***	109.4 ***
X_6 WAGE INC	***omit***	48.2 ***	***omit***
Adjusted R^2	**0.04**	**0.10**	**0.30**
F statistic	**333**	**625**	**2,758**

Model 3 evaluates the influence of education, age, gender and marital status of HH. All four demographic variables have a significant influence or correlation with *net worth*. The relative influence of the demographic variables on *net worth* is as follows: both education and age have a positive influence, but education (t=22.7) is more significant that age (t=21.2). Marital status and gender are both significant and negative, but marital status (t= -7.0) is more significant than gender (t= -5.4). The adjusted $R^{2\,\text{for}}$ Model 3 is 0.04 (4 % explanation of model and F-statistic of 333), so the demographic variables account for about 4% explanation of *net worth* is still significant, although the amount of explanation is small (4%).

Influences on Net Worth (Model 4)

$$Y_{(\text{Net Worth})} = a + bX_{1\,(\text{Education})} + cX_{2(\text{Age})} + dX_{3(\text{Gender})} + eX_{4(\text{Marital Status})} + f\mathbf{X_{5(\text{WAGE INCOME})}}$$

Model 4 evaluates the influence of education, age, gender and marital status of HH in addition to *wage income*. *Wage income* has the strongest positive influence on *net worth* (t= 48.2). All four demographic variables have a significant influence or correlation with *net worth*. The relative influence of the demographic variables is as follows: both education and age have a positive influence, but age (t=21.1) is more significant that education (t=20.6). Marital status and

gender are both significant and negative, but marital status (t= -6.6) is more significant than gender (t= -4.9).

The adjusted R^2 for Model 4 is 0.10 (10 % explanation of model and F-statistic of 625), so the model's explanation of *net worth* is more significant than Model 3. By introducing *wage income* to Model 4, the explanation is increased by 6% compared to Model 3.

Influences on Net Worth (Model 5)

$$Y_{(\text{Net Worth})} = a + bX_{1\,(\text{Education})} + cX_{2(\text{Age})} + dX_{3(\text{Gender})} + eX_{4(\text{Marital Status})} + iX_{6(\text{INCOME})}$$

Model 5 evaluates the influence of education, age, gender and marital status of HH in addition to Income (during last 12 months, which includes Wage Income). HH income has the strongest positive influence on *net worth* (t= 109.4). Wage income is deleted from this model, so it doesn't confound the effect of HH income. All four demographic variables have a significant influence or correlation with *net worth*. The relative influence of the demographic variables is as follows: both education and age have a positive influence, but age (t=20.4) is more significant that education (t=18.1). Marital status and gender are both significant and negative, but marital status (t= -7.1) is more significant than gender (t= -3.6).

The adjusted $R^{2\,\text{for}}$ Model 4 is 0.30 (30 % explanation of model and F-statistic of 2,758), so the model's explanation of *net worth* is very significant. So, the introduction of Income increases by 26% compared to Model 3 and 20% compared to Model 4.

SUMMARY CONCLUSIONS AND IMPLICATIONS

Based on the regression models, it is obvious that while demographics such as education, age, gender and marital status have significant correlations with wage income, HH income and net worth, they may not be the most significant explanatory variables for understanding income and wealth inequalities. Also, the correlation between explanatory (independent) variables can distort the regression results.

However, the objective of the regression models was to give an overview of the relative importance or influence of explanatory variables.

Model 1-Wage Income: Education and age have positive correlations with wage income; so more educated and older HH have higher wage income. Gender and marital status have negative correlations with wage income (female and single HH are correlated to lower wage income). So, the relative order of correlation is as follows:

WAGE INCOME: (+) Education > (+) Age > (-) Gender, (-) Marital Status

Model 2 –Income : Education and age have positive correlations with Income; so more educated and older HH have higher income. Gender and marital status have negative correlations with income, but only gender is significant (female HH is correlated to lower income). So, the relative order of correlation is as follows:

INCOME: (+) Education > (+) Age > (-) Gender (-) Marital Status but n.s.

Model 3-Net Worth: Education and age have positive correlations with net worth; so more educated and older HH have higher net worth. Gender and marital status have negative correlations with net worth (female and single HH are correlated to lower net worth). Marital status has a greater negative effect than gender with respect to net worth. So, the relative order of correlation is as follows:

NET WORTH: (+) Education > (+) Age > (-) Marital Status > (-) Gender

Model 4-Net Worth: Wage income is included in Model 3. Wage income is the dominant explanatory variable, compared to similar demographics (Model 3).

NET WORTH: (+) Wage income > (+) Age > (+) Education > (-) Marital Status> (-) Gender

Model 5-Net Worth: Income is included in Model 3. Income is the dominant explanatory variable, compared to similar demographics (Model 3), and also Model 4.

NET WORTH: (+) Income > (+) Age >(+) Education > (-) Marital Status > (-) Gender

While the regression models are helpful in understanding relative effects of a number of variables simultaneously on wealth and income, they may also be confounded by multicollinearity effects in the models. The combination of models used was an attempt to separate out and compared relative overall effects. The conclusion is that gender and marital status are correlated to wealth and income variables, but they may be more important as proxies for other societal and socioeconomic structural issues.

The results of the comparison between the four groups (based on gender and marital status) provide a simple, but important starting point for understanding the differences in socioeconomic groups. Overall, *married HH* families have significantly higher incomes and wealth than *single HH* families. However, when gender of HH is introduced the results change dramatically. For example, *married male HH* (Group 1) still have significantly higher incomes (about $81,000) and wealth (about $270,000), but there are significantly lower median values for *married female HH (Group 2)* income (about $35,000) and wealth (only about $16,000). Furthermore, *married female HH* (Group 2) income is closer to *single male HH* (Group 3) ($35,000) and has less wealth than Group 3's $42,000 median value. The lowest income profile is *single female HH* (Group 4) (income= about $28,000) and median wealth is around $24,000. The lowest wealth group overall is the *married female HH* (median wealth=$16,000).

Both groups headed by women have the 2nd highest number children (0.73) compared to the highest *married male HH* (1.11) and lowest *single male HH* (0.20). What are the implications for the *female HH* groups where income are lower, but the presence of children is significant? It may be particularly distressing *single female HH*, which constitute 22.5% of all households, show a mean of 0.73 children and a median income of less than $28,000. What are the implications for lack of resources for educating and raising children and circumventing inter-generational propagation of poverty?

Continued research can add more depth to our understanding of the structural and fundamental issues which may be more significant. It is also important to explore how the

combined interaction of variables influences differences. After all, households do not live in a vacuum, where single variables have well-defined and uncontaminated effects.

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