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Changes in Economic Mobility

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EXECUTIVE SUMMARY

Over years, income inequality has been one of the most continuously controversial topics. Most recent statistics show that, “from 1992 to 2007, the top 400 earners in the U.S. saw their income increase 392% and their average tax rate reduced by 37%. The share of total income in America going to the top 1% of American households (also after federal taxes and income transfers) increased from 11.3% in 1979 to 20.9% in 2007. Also in 2013, the Economic Policy Institute noted that even though corporate profits are at historic highs, the wage and benefit growth of the vast majority has stagnated.”[1]

The fruits of overall growth have accrued disproportionately to the top 1%. And the growing income and decreasing tax rate magnify the income inequality. The project studied how this income inequality occurred and changed over the years. Its main research question is whether does family background such as family income influences children’s income, and how it changes over the years. Specifically, I am studying the change of the relationship between high family income at age 16 and childrens’ later income.

I ran several multiple regressions using two combinations of data sets from General Social Survey. One data set combines the years 1984, 1985 and 1987; the other one combines 2008, 2010 and 2012. This allows me to compare previous years and recent years and to see how relationships change over the years.

This research found that in 1980s, high family income had a negative effect on your income. However, in recent years, the relationship between income and family income becomes positive and much stronger than previously. In other word, being born into rich families nowadays can have a positive effect on childrens’ later career. Moreover, the impact is large enough to cause a huge gap between the wealthy and poor.

The analysis also found interesting time trends in the impact of other explanatory variables on the income equation. First, the age that earn most, specifically the prime of your career has moved earlier over these decades. Young and energetic employees are now preferable to older and experienced workers, also, in recent years, people can earn even more if they work extra hours. Second, although currently sex discrimination still exists in that men can earn more than women, the relationship between gender and income has been gradually weakening over years. Finally, related to education, having a higher degree is always an advantage to get paid higher wages. However, over the years, the importance of a high degree becomes more and more being stressed.

From the above analysis, it is evident that income inequality has been an increasingly serious social problem. Not only is the income of your family increasingly important in determining yours, but also the problem of inequality

[1]"Income Inequality in the United States." *Wikipedia*. Wikimedia Foundation, 24 Nov. 2013. Web. 25 Nov. 2013.

increasingly related to youth, working time, gender and degree. Although eradicating income inequality completely seems impossible, there are many ways to alleviate the problem.

First, progressive taxation might be a useful way in the process of wealth redistribution. “Basically, progressive taxation is a way to reduce absolute income inequality through transferring the higher rates tax paid by higher-income individuals to social safety net spending.”[2] This would result in progressive government spending, and the government could spend more on the bottom half of the scale, for instance, by increasing funding for those anti-poverty programs such as Aid to Families with Dependent Children, and higher education subsidies.

Secondly, the government could also raise the minimum wage or set a wage ceiling. “Raising the minimum wage would help reverse the ongoing erosion of wages that has contributed significantly to growing income inequality.” [3] It will increase the standard living of the poorest, motivate employees to work harder, raise the average and etc. On the other hand, the government could also set a maximum wage, which is a legal limit on how much income an individual can earn. The maximum wage “would limit the amount of compensation an employer could receive to a specified multiple of the wage earned by his or her lowest paid employees.” [4]

Despite the fact that it is difficult to assert the perpetrator of income inequality, based on the analysis, the suggestions and recommendations above are all feasible proposals to mitigate the impact of this problem. And invested in time and effort, the economic inequality will decline to some extent.

[2] "Income Inequality in the United States." *Wikipedia*. Wikimedia Foundation, 24 Nov. 2013. Web. 25 Nov. 2013.
[3] "Minimum Wage." *Wikipedia*. Wikimedia Foundation, 25 Nov. 2013. Web. 24 Nov. 2013.
[4] "Maximum Wage." *Wikipedia*. Wikimedia Foundation, 19 Nov. 2013. Web. 25 Nov. 2013.

INTRODUCTION

Over years, income inequality has been one of the most continuously controversial topics. Most recent statistics show that, “from 1992 to 2007, the top 400 earners in the U.S. saw their income increase 392% and their average tax rate reduced by 37%. The share of total income in America going to the top 1% of American households (also after federal taxes and income transfers) increased from 11.3% in 1979 to 20.9% in 2007. Also in 2013, the Economic Policy Institute noted that even though corporate profits are at historic highs, the wage and benefit growth of the vast majority has stagnated.”[5]

The fruits of overall growth have accrued disproportionately to the top 1%. And the growing income and decreasing tax rate magnify the income inequality. The project studied how this income inequality occurred and changed over the years. Its main research question is whether does family background such as family income influences children’s income, and how it changes over the years.

DATA SETS

I ran several multiple regressions using two data sets from General Social Survey. One data set combines the years 1984, 1985 and 1987; the other one combines 2008, 2010 and 2012. This allows me to compare previous years and recent years and to see how relationships change over the years. I had approximately 3500 observations in each data set. The variables in the analysis are:

1. Dependent variable:
   conrinc: respondent income in constant dollars
2. Key explanatory variables:
   incom16: your family income when you were 16yrs old
   1) incom161: far below average (excluded)
   2) incom162: below average (excluded)
   3) incom163: average (excluded)
   4) incom164: above average (excluded)
   5) incom165: far above average
   6) incom16a: don’t know, no answer
3. Additional control variables:
   1) age: age of the respondent
   2) agesq: squared age of the respondent
   3) hrs1: number of hours you worked last week
   4) male: dummy variable equals to 1 if male
   5) white: dummy variable equals to 1 if white
   6) degree: the respondent’s highest degree
      i. degree0: less than high school

[5]"Income Inequality in the United States." *Wikipedia*. Wikimedia Foundation, 24 Nov. 2013. Web. 25 Nov. 2013.

ii. degree1: high school
iii. degree2: associate/ junior college (excluded category)
iv. degree3: bachelor
v. degree4: graduate
vi. degreedn: don't know, no answer (combined into excluded category)[6]

4. Interaction terms:
maleXincom165: male times incom165

My dependent variable is conrinc, the respondent's income in constant dollars (inflation-adjusted personal income, converted to 2000 dollars). The key explanatory variables are based on incom16, family income when the respondent was 16. Because the coefficients on some dummy variables made from incom16 were not significant different from each other, I combined incom161, incom162, incom163, and incom164 as the excluded category.

There are also many possibly confounding variables that can influence the respondent's income, including the age of the respondent, and the number of hours the respondent worked last week. Preliminarily analysis indicated that the relationship between age and income is nonlinear, so a quadratic term for age was created. Other control variables were made from categorical variables such as gender, race and the respondent's highest degree. You can find tables of descriptive statistics about all my variables in Appendix A& B.

ANALYSIS

Appendix C gives the results of two different multiple regressions for each data set of 1984, 1985, 1987 and the data set of 2008, 2010, 2012 with the second concluding the interaction term maleXincom165 to measure how the impact of family income differs with sex.

Regression 1

Looking first at the first regression for the earlier period, the relationship between respondents' income and family income is negative. In my hypothesis, the correlation between income and family income would be positive when holding control variables constant. However, the results show that respondents with high family income would earn even less than others. In recent years, the relationship between income and family income becomes positive, and the coefficient increase as time passed. Therefore, born in rich families nowadays could have a positive effect on income.

Comparing the t-stat of incom165 in two data sets, when holding all control variables constant, the t-stat of incom165 in recent years is more significant than in the earlier period. In other words, the relationship between children's income and high family income in recent years is much stronger than in previous years. Moreover,

[6] The coefficient on degreedn was not significantly different from the coefficient of degree2

the stronger positive relationship is going to have a great impact, which will cause the huge gap between the wealthy and poor.

In terms of the other control variables, the results of two data sets are similar. First, the t-statistic of agesq indicates that the relationship between income and age is nonlinear. In the earlier period, the equation shows that below an age 54, income will increase as people get older, while after that age, it will go decrease. Second, every extra hour worked add $380 more to income. Holding all other variables constant, men earn $14676 more than women. Furthermore, the higher degree you have, the more income you earn, since the coefficients grow from low to higher level of degrees. Finally, the coefficient on race ran counter to my expectation that white people would certainly earn more than other races in foregoing years. In the earlier period, the regression shows that white earn $2528 less than others. However, in the recent years, the result meets to my expectation that white people earn more than other races.

Regression 2

Regression 2 concludes the interaction term maleXincom165 to measure how the impact of family income differs with sex. Gender is an important factor that might influence their income, because wage discrimination against female workers exists regardless of rich and poor. As the coefficient of male shows, when controlling other variables, men earn much more than women. Moreover, by comparing t-stats of male in two regressions, the relationship is not that strong in recent years than earlier years.

With the interaction term of gender and family income, the equation of the earlier period shows that when holding all other variables constant, being born in rich families, men would earn $20697 more than women. Furthermore, in recent years, sex discrimination in rich family becomes more severe that being born in a really rich family, men would earn $54436 much more than women.

The results show when controlling all other variables, a man who was in a very rich family will earn $20697 more than female in previous years. While in recent years, a man who was in a very rich family will earn $54436 more than female. In short, overall the income gap between male and female decreases over years in the whole society, but for respondents with high family income, it becomes much larger over the years.

CONCLUSION

This research found that in 1980s, high family income had a negative effect on your income. However, in recent years, the relationship between income and family income becomes positive and much stronger than previously. In other word, being born into rich families nowadays can have a positive effect on childrens' later career. Moreover, the impact is large enough to cause a huge gap between the wealthy and poor.

The analysis also found interesting time trends in the impact of other explanatory variables on the income equation. First, the age that earn most, specifically the prime of your career has moved earlier over these decades. Young and energetic employees are now preferable to older and experienced workers, also, in recent years, people can earn even more if they work extra hours. Second, although currently sex discrimination still exists in that men can earn more than women, the relationship between gender and income has been gradually weakening over years. Finally, related to education, having a higher degree is always an advantage to get paid higher wages. However, over the years, the importance of a high degree becomes more and more being stressed.

After a thorough analysis of the results, it is evident that income inequality has been an increasingly serious social problem. Not only is the income of your family increasingly important in determining yours, but also the problem of inequality increasingly related to youth, working time, gender and degree. Although eradicating income inequality completely seems impossible, there are many ways to alleviate the problem.

First, progressive taxation might be a useful way in the process of wealth redistribution. “Basically, progressive taxation is a way to reduce absolute income inequality through transferring the higher rates tax paid by higher-income individuals to social safety net spending.”[7] This would result in progressive government spending, and the government could spend more on the bottom half of the scale, for instance, by increasing funding for those anti-poverty programs such as Aid to Families with Dependent Children, and higher education subsidies.

Secondly, the government could also raise the minimum wage or set a wage ceiling. “Raising the minimum wage would help reverse the ongoing erosion of wages that has contributed significantly to growing income inequality.” [8] It will increase the standard living of the poorest, motivate employees to work harder, raise the average and etc. On the other hand, the government could also set a maximum wage, which is a legal limit on how much income an individual can earn. The maximum wage “would limit the amount of compensation an employer could receive to a specified multiple of the wage earned by his or her lowest paid employees.” [9]

Despite the fact that it is difficult to assert the perpetrator of income inequality, based on the analysis, the suggestions and recommendations above are all feasible proposals to mitigate the impact of this problem. And invested in time and effort, the economic inequality will decline to some extent.

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[7] "Income Inequality in the United States." *Wikipedia*. Wikimedia Foundation, 24 Nov. 2013. Web. 25 Nov. 2013.
[8] "Minimum Wage." *Wikipedia*. Wikimedia Foundation, 25 Nov. 2013. Web. 24 Nov. 2013.
[9] "Maximum Wage." *Wikipedia*. Wikimedia Foundation, 19 Nov. 2013. Web. 25 Nov. 2013.

APPENDIX A

Summary of all variables in Data Set of 1984, 1985 and 1987

```
. sum conrinc age agesq hrs1 male white degree0 degree1 degree3 degree4 incom165 incom16a
>  maleXincom165
```

Variable	Obs	Mean	Std. Dev.	Min	Max
conrinc	4015	28372.73	24046.59	750	113902
age	6268	44.68539	17.81424	18	89
agesq	6268	2314.08	1776.767	324	7921
hrs1	3792	40.82753	14.33666	0	89
male	6299	.4226068	.4940132	0	1
white	6299	.1963804	.3972911	0	1
degree0	6299	.2678203	.4428586	0	1
degree1	6299	.5170662	.4997483	0	1
degree3	6299	.1211303	.3263046	0	1
degree4	6299	.052548	.2231471	0	1
incom165	6299	.014288	.1186848	0	1
incom16a	6299	.0112716	.1055763	0	1
maleXinc~165	6299	.0088903	.0938758	0	1

APPENDIX B

Summary of all variables in Data Set of 2008, 2010 and 2012

```
. sum conrinc age agesq hrs1 male white degree0 degree1 degree3 degree4 incom165 incom16a
>  maleXincom165
```

Variable	Obs	Mean	Std. Dev.	Min	Max
conrinc	4722	38025.19	58429.8	383	434612.4
age	8036	47.89298	17.515	18	89
agesq	8036	2600.475	1800.701	324	7921
hrs1	4744	41.19498	14.93523	1	89
male	8064	.4510169	.4976257	0	1
white	8064	.7620288	.4258678	0	1
degree0	8064	.1471974	.3543246	0	1
degree1	8064	.4939236	.4999941	0	1
degree3	8064	.1784474	.3829127	0	1
degree4	8064	.1005704	.3007777	0	1
incom165	8064	.0230655	.1501208	0	1
incom16a	8064	.0187252	.1355612	0	1
maleXinc~165	8064	.0122768	.1101252	0	1

APPENDIX C

Table of All Multiple Regressions

	Regression 1		Regression 2	
	84, 85, 87	08, 10, 12	84, 85, 87	08, 10, 12
Variables				
age	2034.78	2903.22	2034.02	2903.29
	13.69	**7.30**	**13.68**	**7.31**
agesq	-18.61	-27.49	-18.60	-27.39
	-10.95	**-6.33**	**-10.94**	**-6.31**
hrs1	379.96	586.42	379.63	587.52
	16.00	**9.22**	**15.98**	**9.25**
male	14675.81	18614.98	14598.12	17907.40
	22.22	**10.10**	**21.97**	**9.63**
white	-2527.66	2252.39	-2526.17	2266.87
	-3.04	**1.05**	**-3.04**	**1.06**
degree0	-12698.17	-16791.56	-12690.88	-16808.72
	-7.60	**-4.01**	**-7.59**	**-4.02**
degree1	-3760.07	-5512.75	-3755.90	-5553.90
	-2.52	**-1.66**	**-2.52**	**-1.68**
degree3	7343.91	18932.21	7389.96	18788.04
	4.48	**5.21**	**4.51**	**5.18**
degree4	16392.09	46220.83	16388.46	46271.26
	8.85	**11.61**	**8.84**	**11.63**
incom165	-3566.78	14765.95	-7879.08	-8892.94
	-1.38	**2.36**	**-1.66**	**-0.85**
incom16a	7755.06	-10781.25	7754.97	-10896.07
	1.96	**-1.23**	**1.96**	**-1.25**
maleXincom165			6099.14	36529.20
			1.08	**2.80**
_cons	-39066.92	-69080.79	-39007.47	-68925.00
	-11.65	**-7.54**	**-11.63**	**-7.53**
# Observations	**3497**	**3948**	**3497**	**3948**
Adj R-squared	**0.3917**	**0.1784**	**0.3917**	**0.1798**
SE	**18869**	**56144**	**18869**	**56095**