
Comment

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The paper by Guvenen, Kaplan, and Song provides many useful insights into the evolution of top earners' earnings and the dynamics of the gender gap at the top of the earning distribution. The authors have access to a representative sample of 10% of individual earnings from the Social Security Administration between 1981 and 2012. The panel structure of the data allows them to follow individuals over time shedding light on the persistence of top earners and addressing some of the shortcomings of the literature that uses cross-sectional data.

They find several interesting results. First, in 2012 the share of women among the top 0.1 percent of earners is only 11% and among the top 1% only 18%. This gap was even larger earlier in the sample, suggesting a slow positive trend toward the reduction of the gender gap, with the majority of the gain concentrated in the 1980s and the 1990s. Second, the paper unveils a very large turnover over the lifecycle among top earners, for both men and women, and highlights that gender improvements coincides with a larger persistence over time of women at the top of the income distribution. While in the 80s women were twice as likely as men to drop out from the top earners, in recent years the probability of men and women of dropping out has become similar. Third, industry and age variations provide further insights on the dynamics of the gender gap. The authors do not find any obvious relationship between the evolution of income across industries and the mitigation of the gender gap over time, while the distribution of age among top earners shows significant changes, with new cohorts of women making inroads into the top 1 percent earlier in their lifetime than previous cohorts (this results does not hold for the top 0.1 percent earners).

Overall, the evidence shows very slow progress of women among top earners and, while the paper remains descriptive, it has the merit to suggest several possible avenues of future research to study the causes of the persistence in the gender gap and its dynamics.

I. Excluded income

The paper uses the best data available to make meaningful observations about the lifecycle evolution of top incomes. However, the Social Security Administration data has also some drawbacks. The most relevant limitation for this exercise is that the data studied in this paper contain only the information reported on Box 1 of the W-2 form. This information includes wages and salaries, bonuses, and exercised stock options for employees but does not contain several other measures of compensation such as interest, dividends, and rents. More importantly, unlike the IRS data, it excludes all income that is reported on Schedule E which include compensation from partnerships and S-corporations, as well capital gains. Because compensation of top employees in certain industries (e.g. finance) has increasingly moved toward compensations of partnership contribution and carry (capital gains) and income from entrepreneurship has increased among top earners, it is possible that the SSA data overestimate the gains made by women, if women are less likely to hold non-salaried jobs with very high compensations. An example of this trend is the evolution of the top jobs within the finance industry where finance professionals increasingly receive non salaried compensation (Kaplan and Rauh, 2013). Elite jobs in finance, real estate, and law firms are compensated with partnership compensation that does not appear in the SSA data. Using data from the IRS which contains information on income earned by pass-through businesses and capital gains, Bakija et al. (2012) show that, from 1979 to 2005, among taxpayers in the top 0.1 percent of the distribution of income, finance professionals increased from 11.2% to 17.7% and real estate professionals increased from 2.3% to 5.4%. Also, lawyers were 7.7% in 2005, an increase of 2.8% from 1979. While within these groups, there are several salaried employees, much of the growth over time has been concentrated in segments of these industries where employees are compensated with a percentage of the firm's profit and/or carried interests. These differences explain the discrepancies in the industry results between Bakija et al (2012) and Guvenen et al. (2020). The increase of total compensation of top earners in these industries is due to both the increase in the number of individuals compensated with non-salaried income and the growth in compensation in these categories. Kaplan and Rauh (2013) compare the average pay of the top 25 highest paid hedge fund managers, every two years, from 2002 to 2012. They report that the average compensation for hedge fund managers was 537 million in 2012, up from 133.7 million in 2002. More importantly, several hedge fund managers ranked lower than 25 earned much higher compensation than in the previous decade and much higher than the total compensation of top corporate executives reported in the W-2. Bakija et al. (2012) show that the pay of closely held executives has also risen substantially as a share of the top 0.1 percent from 9 percent in 1979 to 22 percent in 2005. The exclusion of these incomes generates an important difference between the data of top earners from IRS and those from the SSA. Guvenen and Kaplan (2017) reports that the divergence between the IRS and SSA data increases over time starting in the 80s, even without

accounting for capital gains in the IRS data (Figure 1). While wages between the two sources coincide, the exclusion of the other sources of income may deliver a substantially different picture regarding the evolution of the gender gap, especially among the very rich. The Institutional Investor's Alpha Magazine publishes a "rich list" that contains the names and compensation of the top 50 hedge managers by compensation. In 2016, for the first time, a woman made into the list and was ranked 44th. Anecdotally, the industries and sub-fields in finance where Kaplan and Rauh (2013) identify the largest increase in non-wage compensation are also generally those where the proportion of women is the lowest. For example, in 2018 only 5.2% of women held seats representing PE firms in portfolio companies (typically board seats are reserved to partners in the PE funds), suggesting that this segment of the finance industry has potentially a much higher gender gap than the industry that pays wages and bonuses. Thus, the reduction in the gender gap highlighted in the paper should be interpreted for the subset of salaried individuals, which over time contains fewer top earners, given the evolution of pay in the US. This exclusion is likely to affect the interpretation of the results, especially for the 0.1 percent of top earners, as more top earners have moved toward non-salaried income. It may also affect the interpretation of the paper floor. Evidence shows that successful entrepreneurs found companies later in life (Azoulay et al., 2020) and that there are fewer women among the most successful entrepreneurs. Similarly, many non-salaried jobs in finance are the results of job transitions later in life. To study the evolution of income, Guvenen et al. (2020) require that each individual in the sample has a minimum annual earning every year. An interesting alternative exercise would be to study the transitions from salaried to non-salaried high income categories. If men leaving a top salaried category are more likely than women to join into an higher income category excluded from the SSA data, the effect of turnover is different for men and women, but it is hard to study with SSA data.

The Top versus the Very Top

Even with the caveat that the results are confined to study the trends among salaried individuals, one may worry about the interpretation of some of the results at the very top of this distribution. The literature has highlighted the fact that, in the past decades, the largest fraction of income increase has been concentrated at the very top of the distribution (Guvenen and Kaplan, 2013). Guvenen et al. (2020) study the 0.1 top percent after winsorizing the observations above 99.999th percentiles. While this choice may stem from the fact that the excluded incomes may be suspiciously high, the maximum of 25.4 million in their data is quite low when compared with the data provided by Kaplan and Rauh (2013), especially if considering that the demand for top talents is likely to affect salaried income at the very top. Given the objective of the paper, one could argue that it is important to show the unwinsorized results to study the gender gap evolution at the very top.

Using data from Execucomp which contains information on salary, bonuses, and exercised options for top executives (mostly CEOs and CFOs) of publicly listed firms, I estimate the change overtime for the average executive and for those with a compensation above the 99th and 99.9th percentile of the income distribution from 1992 to 2012. To calculate the top percentiles, I use the thresholds from the revised Piketty and Saez (2003)'s IRS data, likely higher than the cutoffs used in Guvenen et al. (2020) because it includes incomes from pass-through entities.¹ The good news is that, after accounting for the fact that data for executives of publicly listed companies move much closer with the stock market, the trends in income over time in the Execucomp data look remarkably similar to Figure 1 in Guvenen et al. (2020). The income levels, however, are very different in this subset of highly paid individuals. In Execucomp data, between 1992 and 2012, there are 1,114 executives with a compensation above the global maximum of 25.4 million in Guvenen et al (2020) data, 1,094 (98.2%) are men and only 20 (1.8%) are women. One possibility for this large discrepancy could be due to potentially different ways of accounting for the exercised stock options in the two datasets. Yet, taking the most conservative approach and setting equal to zero the option values in the Execucomp data, the number of executives with a compensation above 25.8 million, drops to 32 and none of them is a woman. Given the large numbers of executives at the very top who exceed the maximum in the sample, it is certainly worth investigating the gender gap dynamics in this selected group. In Figure 2, using the Piketty and Saez cutoffs for the top percentiles (0.1 and 1 percent) and Execucomp data on salaries, bonuses and stock options for executives, I plot the fraction of female executives, who receive compensation above 0.1% and 1%. While the trends are in line with Guvenen et al. (2020), the fraction of women at the very top are substantially lower every year in Execucomp data. In 2012, there are 9% of women in the sample of executives, and the fraction of those above 0.1% and 1% are respectively 4.5% and 7.5%, 60% lower than the fraction obtained using the SSA sample.² Executives are not a representative sample of top earners, but these differences raise the question of how well the paper estimates the fraction of women at the very top.

Conclusions

Guvenen et al. (2020) have written an extremely helpful paper to study gender inequality at the very top. Their descriptive analysis does not make claims regarding the reasons of why women lagged behind but the dynamics point us

¹ The thresholds for Guvenen et al. (2020) are not available in the paper, but given the differences in income data in the two datasets it is likely that Piketty and Saez data have higher thresholds.

² This numbers are calculated by setting the option values in the executive compensations equal to zero. When considering total compensation in Execucomp (salary, bonus, and exercised options), the fraction of women exceeding the 0.1% and 1% thresholds of income is respectively 6.2% and 7.7%.

toward many interesting directions that are worth investigating further. They suggest that one reason for the relative gains of women in recent years is the “mending the paper floor” phenomenon, as female turnover out of the top earners categories has decreased dramatically over time. This is a very interesting direction that is worth investigating further. They also highlight that the age when men and women first obtain a top earning position is correlated with the reduction in gender gap. Both aspects of the analysis point to the importance of investigating this phenomenon with panel data, but further analysis of career interruptions and income trends would require studying income life progression combining information from IRS and SSA data. The integration of these data would allow not only to study the transitions from certain types of compensation to others, but it will enrich the analysis with the addition of various individual characteristics and economic and life decisions. For future research, data on the composition of the family, fertility choices, spousal income, as well as family of origin background and resources, will be essential to make sense of the existence and persistency of the gender gap, not just at the top of the distribution but in every income bracket.

Endnote

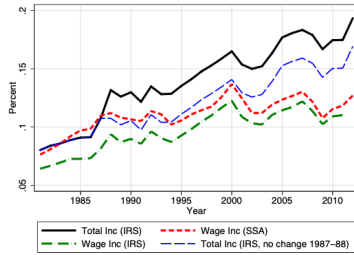
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Top income shares: Total income versus wage income

(a) Top 1 percent



(b) Top 0.1 percent

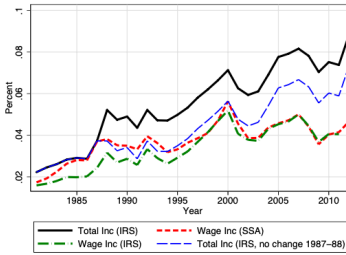


Fig. 1. Source Guvenen and Kaplan (2017). IRS data are for total income excluding capital gains from Saez (2012). SSA data are from Guvenen, Kaplan, and Song (2014). The dashed red line is wage and salary income from W-2 forms. The dash-dot green line is wage and salary income from IRS. The solid black line is total income excluding capital gains from IRS.

Execucomp: Salary and Bonus



Execucomp: Total compensation

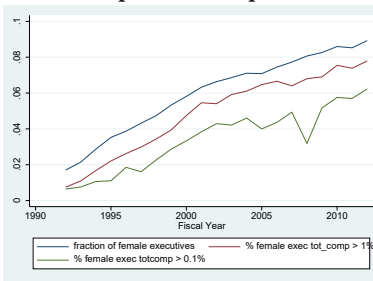


Fig. 2. Calculation of the authors. Source Execucomp data and Piketty and Saez (2003) data revised in 2018. The blue line is the proportion of women among executives. The red line is the fraction of women in the executive data who exceed the 1% percent income threshold, and the green line is the fraction of women in the executive data who exceed the 0.1% percent income threshold. The left figure sets option values equal to zero, while the right figure uses the option value as calculated in Execucomp.