Who Is a Top Earner And For How Long?  
Top Income Mobility in Switzerland  

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Preliminary, please do not cite!  

September 1, 2017  

Abstract  
Many countries have witnessed an increase in income shares going to the top 1%, yet little is known about the prevalence of these households at the top. This paper aims at addressing this question in the case of Switzerland, where previous research by Föllmi and Martínez (2016) has found that top income shares have been rising since the mid-1990s, and have become more volatile. Using full-population social security data, I document labor income mobility patterns within the top decile and the rest of the distribution over the period 1981-2010. In addition, I shed light on gender inequality at the top, and the share of foreign-born and self-employed among top earners in Switzerland. I find that persistence has been slightly decreasing. With a share of only 5%, women are strongly under-represented among the top 0.1% of earners. The share of foreign-born among the top 0.1% rose from 20% to 40% in the 2000–2010 period.  

JEL-Classification:  
Key words: income mobility; income inequality; top incomes; administrative data  

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1 Introduction

There is now a well developed literature on top income inequality across developed and emerging economies (many of them collected in Atkinson et al., 2011; Atkinson and Piketty, 2007, 2010, and accessible on the World Wealth and Income Database (Alvaredo et al., 2017)). Many countries have witnessed an increase in income shares going to the top 1%, which has led to concern among both, scholars and policy makers (see for example the newly launched OECD series on inequality: OECD, 2008, 2012, 2015). These inequality measures, however, remain cross-sectional snapshots and say little about the persistence of top earners at the top or changes in life-time inequality. If at the same time that we observe cross-sectional inequality rising also income mobility over the life-cycle has increased, life-time income inequality may not have increased. Yet so far, still little is known about the prevalence of top earners at the top.

This paper addresses this question in the case of Switzerland. Previous research by Föllmi and Martínez (2016) has found that top income shares in Switzerland have been rising since the mid-1990s, and that top income shares have become more volatile over the past decades. These two facts observed at the macro level may have different implications at the individual level. It could be that the extended use of incentive-compatible, variable compensation schemes has lead to fluctuations in incomes of top earners observed in the aggregate over the business cycle, as well as to increased earnings risk of the best-paid workers in the economy. Such practices could therefore have led to an increase in income mobility at the individual level. Alternatively, aggregate top income fluctuations may have increased, but top earners keep their ranks for a long time and are like sailors in rough sea, rolling up and down in the waves. In the latter case, the recent increase in top income shares would not have been counteracted by increased income mobility, therefore implying an increase in life-time inequality. Using full-population social security data, I document labor income mobility patterns within the top decile and the rest of the distribution over the period 1981-2010. This is one of the still few studies on top income mobility and the first using Swiss data.

In addition, I shed light on gender inequality at the top as well as the share of foreign-born and self-employed among top earners in Switzerland. These aspects have rarely been discussed in earlier research on top earners. They are, however, informative to understand how well different subgroups are represented at the top of the labor income distribution and hence characterize the labor market itself.

I find that mobility has increased over the period 1981–2010, yet the increase took
place during the 1980s and therefore before the observed surge in inequality. After 3 years, about 40% of those formerly in the top 1% are not in this group anymore, after 10 years about 60% of top earners have left the top. These figures were about 10 percentage points higher in 1981. Mobility has increased over the whole income distribution and especially in the middle. This was nevertheless not enough to counteract the increase in inequality. Both the Gini index and top percentile-to-median ratios of permanent income averaged over 5 years have been increasing since the mid 1990s.

Women are highly underrepresented among top groups. Their share at the top is 4 times lower than in the total labor force. At the same time they exhibit higher mobility rates than the total labor force, implying that women are less likely to remain at the top over an extended period of time than for men. Foreigners, on the other hand, were represented only slightly below their total share in the labor force within all fractiles of the top decile until the late 1990s. Since the 2000s their share has been increasing, especially at the very top. In 2010 (the last year of data availability) 40% of those in the top 0.1% of the labor income distribution were foreign-born, compared to 27% in the total labor force. The timing of the increase coincides with the introduction of the agreement on free movement of persons between Switzerland and the European Union, suggesting that the policy change increased the share of well-paid, highly mobile international professionals in the Swiss labor market. The share of self-employed among top earners, although still high, has been decreasing since the mid-1990s, especially among the top 1% and top 0.1%.

This paper contributes to the large, recent literature on top incomes by going beyond the annual cross-sectional view on inequality. My results show that inequality in Switzerland has been on the rise in recent years and that this was not compensated by increasing mobility in and out of top income groups. My results highlight the importance of taking on a more dynamic view to gain a better understanding of processes driving income inequality. Much has been discussed about the importance of capital incomes of the very rich who can also claim large parts of national wealth their own. This study’s focus lies on labor incomes, which allows to understand recent dynamics in the Swiss labor market. Given that most individuals generate their income in the labor market, understanding labor income inequality is of particular interest. By further shedding light on gender differences and the role of foreigners in the labor market, I add another, new and seldom studied aspect to the analysis of top incomes.

The remainder of the paper is organized as follows. The next two sections give a brief overview of the literature on top income inequality and mobility and the different ways mobility is measured in the literature. Section 4 describes the data. Results on
income mobility at the top and the importance of different subgroups among top earners are reported in 5. Section 6 gives first conclusions and maps out future research of this ongoing project.

2 Previous Research on Income Mobility at the Top

Reflecting the large literature on top income shares that emerged over the past two decades, several studies have measured persistence of top earners within top groups, especially for the U.S. Auten et al. (2013); Auten and Gee (2009) present estimates based on tax data covering years 1987 and 1997 (1996) through 2007 (2005). They find that there is mobility at the top, however 42% of the top 1% in 1996 are still in the same group in 2005. 82% of them remained in the top 10% (Auten and Gee, 2009). Kopczuk et al. (2010) use Social Security Administration longitudinal earnings micro data on male earners in the U.S. covering the period 1937–2004. They find that “virtually all of the increase in the variance in annual (log) earnings since 1970 is due to increase in the variance of permanent earnings (as opposed to transitory earnings).” More importantly, mobility at the top of the earnings distribution has not mitigated the dramatic increase in annual earnings concentration since the 1970s. Similarly, Landais (2008) finds for France that mobility is low at the top of the income distribution as well as among top wage earners, and that it has remained stable in a context of increasing income concentration. The paper uses a sample of income taxpayers over the period 1990–2007. The estimates are in a range similar to those found for Canada, where the likelihood of remaining in the top 1% is around 60%, 50% and 40% after 1, 2, or 3 years respectively (Saez and Veall, 2005). Jenderny (2016) finds for the 2001–2006 period top income mobility in Germany to be low and stable. Mobility at the very top is even lower than among the less rich tax units. All of these studies find very stable patterns in income mobility, suggesting that mobility may be uncorrelated to (top) income inequality and changes in therein. A notable exception are the findings for Norway in (Aaberge et al., 2013), where (despite being low) top income mobility has increased at the same time as the income shares of the top income receivers started to increase around 1990. More recent studies on top income mobility include Moffitt and Gottschalk (2002); Guvenen et al. (2012); Grubel (2015); Carroll (2010); Larrimore et al. (2015).

For Switzerland, there exists only one study on income mobility. Based on tax data from the canton on Zurich, Moser (2013) analyzes transition probabilities between 2001 and 2010 and persistence at the top. He finds that after 10 years 47% can be found
again within that same group. However, 25% of them form part of the top 1% in each of the 10 years. Among these, retirees are strongly overrepresented. Due to the strong fiscal federalism in Switzerland, tax registers do not allow to follow individuals across cantons. Therefore, the sample in Moser (2013) includes only individuals living in the canton of Zurich. If income mobility is positively correlated with geographical mobility, his estimates underestimate true income mobility in Switzerland. On the other hand, income mobility in the economically thriving, dynamic area of Zurich may be larger than in other areas. Finally, estimates based on cantonal tax data may further be biased due to the well-documented phenomenon of income sorting of rich households into low-tax cantons (Roller and Schmidheiny, 2016; Liebig et al., 2007; Schaltegger et al., 2011, see for example). As I show in Section 5.5, Figure 12, there is substantial variation in total income mobility when measured within cantons.

3 Measuring Income Mobility

There are different ways to measure mobility at the top of the income distribution, and conclusions may differ depending on the measure used. Jenderny (2016); Aaberge et al. (2013); Auten and Gee (2009), among others, discuss the implications of using different mobility measures and provide different approaches to measuring income mobility.

Decile and percentile rank changes

As research on top incomes has developed focusing on top income percentiles, such as the top 10% or top percentile of the income distribution, a straightforward measure of income mobility is how households move in and out of these top groups. Such movements are measured by the correlation of ranks over time. This approach is not limited to top income earners, therefore allowing comparisons of mobility for groups at the bottom and the middle of the income distribution. Several studies have applied this measure, including Auten and Gee (2009) (Auten et al., 2013) Moser (2013) Jenderny (2016).

Absolute income changes: Top Mobility Curve and Income growth

Ultimately, concerns about income inequality are not about differences in ranks but differences in incomes. Even with a very egalitarian income distribution, some ranking will arise, but only when differences between ranks in absolute terms of income are large equality concerns will typically arise. Aaberge et al. (2013) (based on Aaberge and Mogstad, 2013) develop a measure which takes into account absolute changes in income when measuring income mobility at the top. Similarly, Auten and Gee (2009) analyze the distribution of growth in real income by quintile and top percentile groups. For the
period 1996–2005 they find income growth to be largest for those in the bottom quintile, and smallest for the top 1%.

**Permanent vs. transitory income** Since annual income measures may be inadequate measures of life-time income, many studies compare inequality measured with annual vs. permanent income. Permanent income is usually measured as average income over a time frame of 3–5 years. Changes in inequality are then attributed to income mobility over time. Aaberge *et al.* (2013) base their mobility curve measure on 3-year averages. Jenderny (2016) recomputes top income shares for Germany averaging incomes over 6 years. Kopczuk *et al.* (2010) compare top earnings shares and Gini indexes based on annual vs. permanent income averaged over 5 years.

**Correlation between incomes in one year and another** Correlation measures and elasticity estimates are conventionally used in studies on intergenerational income mobility, but their application to intragenerational mobility is straightforward (e.g., in Kopczuk *et al.*, 2010, who use annual rank correlations). In the context of intergenerational mobility, however, Nybom and Stuhler (2017) show that these measures are biased when there is measurement error in parental and offspring incomes due to life-cycle bias. Using German data they show that the bias is less problematic in case of the Spearman rank correlation than in the case of the linear Person correlation and that it is most severe for the elasticity estimates. Transition probabilities, on the other hand, are hardly affected at all.

**Income variance over time** Closely related to measures of income mobility are variance in earnings estimates and decompositions into permanent and transitory incomes. Kopczuk *et al.* (2010), for instance, estimate the variance of (log) annual earnings, the variance of (log) 5-year average earnings (permanent variance), and the transitory variance, which is defined as the variance of the difference between (log) annual earnings and (log) 5-year average earnings.

## 4 Data

### 4.1 Matched Social Security - Census Data

The main data set merges the register-based 2010 population census of Switzerland with longitudinal social security annual earnings records (Old Age and Survivor Insurance - OASI) covering the period 1981–2010. Both data sets cover the full population. In the OASI data, employed or self-employed individuals generate one record per job per year that details the starting and ending month of an employment relationship along with the
total earnings over that time period. Matching OASI data to the census further allows to obtain geographical and marital information.

Because virtually everybody generates a record at some point in their life, this matched data set contains 99% of the resident population aged 20–64 in 2010. Naturally, moving back in time, the sample coverage of persons aged 20–64 gets slightly smaller in earlier years because certain individuals that lived in Switzerland in these earlier years died or emigrated and are hence not in the 2010 census. Figure A1 in appendix shows that the matched raw data contain 80% of all individuals aged 20–64 living in Switzerland in 1990.

This issue of potential non-random selection is a risk mobility studies may generally face, since only individuals who can be observed over long time spans can be included in the analysis. Similar issues arise for instance in Auten et al. (2013), who match tax data from 1987 with social security data from 2007.

The matched data set has some drawbacks that should be noted. First, the earnings records in 1998 are incomplete. The share of wage earners for whom records are missing is about 5–6% due recording errors at some of the local social security offices. The missing records have to be taken into account when estimating mobility patterns over time. In the analysis, I accordingly drop affected years from the analysis. Second, the register-based census 2010 does not contain information on some variables of interest normally available in census data such as schooling/education, occupation, or number of children. Third, family characteristics of individuals are only observed as of 2010. Characteristics that can change over time, especially an individual’s place of residence, marital status or citizenship will therefore be prone to errors. The census provides information on how these characteristics changed in the past, allowing to reconstruct the information for years prior to 2010. Accuracy of these variables will nevertheless decrease the further back one goes in time.

Sample selection

The analysis is based on those individuals who are above age 19 and are active in the labor market. This includes registered unemployed and working individuals, but excludes those with no entry in the OASI data in a given year. The interest lies in understanding how individuals move up and down the labor income distribution conditional on participating in the labor market. Including the non-working population as having zero income may lead to a misleading picture of labor income mobility. These may be individuals who for instance retired early, live off their capital incomes, (women) who live together with a
working spouse, or workers who work abroad for some time and are not in the Swiss data. Mobility is therefore measured at the intensive margin. Reductions in labor earnings due to human capital decisions will typically be captured in the data, since even those with very small incomes from, e.g., a student summer job or an occasional part-time job, are included.

The way the data set is constructed, one concern is that the sample becomes less representative of the total population the further one goes back in time. The sample is selected conditional on being present in 2010, hence groups with higher mortality or higher likelihood to emigrate are not present in the sample. As a consequence, in earlier years one would expect the average age in the sample to be lower. This may affect the comparability of mobility measures over time due to life-cycle effects, as well as the computation percentiles. Figure ?? shows that the age distribution is stable over time. It is further possible that the construction of the sample affects the income distribution. In Figure A3 I show the top percentile cutoffs for the top 1% and top 10%, respectively, together with the same cutoffs for the complete population in each year. These cutoffs were calculated on the full data by the social security administration (Zentrale Ausgleichsstelle ZAS). The graphs show that the cutoffs are extremely close and that my sample is representative of the full population.

4.2 Cantonal Income Tax Data

In addition to the earnings data, for the period 1989 to 2010 it is possible to use cantonal tax data made available by the Federal Tax Administration in Bern.\(^1\) The panel structure of this data, varies over time and across cantons and has not been exploited so far. Since tax ids are set at the cantonal level, it is unfortunately not possible to follow taxpayers over time once they move to another canton. Furthermore, data collection changed at different points in time. However, for 17 out of the 26 cantons, data is available for the full period 2001–2010. For another 11 cantons data runs (additionally) from 1989 to 1999, and for 7 cantons the panel structure runs through from 1989 to 2010. Besides net and taxable income, these data contain information on occupation type (employee, self-employed, retiree, others), marital status (married, single parents, others), number of dependent children, double earner deductions, and some information about special types of taxation, especially expenditure-based taxation.

\(^1\)These data are made accessible within the SNSF Sinergia Project No. 130648 “The Swiss Confederation: A Natural Laboratory for Research on Fiscal and Political Decentralization”.

7
5 Results

5.1 Rising top inequality in Switzerland

![Figure 1: Top 1% labor and total income shares](image)

*Note: Source: Föllmi and Martínez (2016)*

![Figure 2: Percentile-to-median ratios](image)

*Note: Log-scale. 5-year average earnings centered around year t.*

5.2 Share of different subgroups among top earners

An advantage of using individual earnings data over tax data is the possibility to look at different subgroups among the top income percentiles. Figures 3–5 show the share of women, foreign-born and self-employed, respectively, among different top groups and
in the total population. It becomes apparent how strongly women are underrepresented among top earners. Even if they have seen their shares rising, in 2010 still only 14.4% among the top 10% were women—while they made up 46% of the total labor force. The situation becomes worse further at the top: among the top 0.1%, the 4300 best earning individuals, only 4.2% are women.

The opposite is true for foreign-born workers (Fig 4). While they have always been well represented among top-earners compared to their total share in the labor force, their share has been rising strongly especially at the very top since the early 2000s. This coincides with the introduction of free movement of persons between Switzerland and the European Union in 2002. It becomes evident that foreigners are overrepresented at the very top in the Swiss labor market. While their total share in the Swiss labor force in 2010 was 25.9%, they made up 40% of the top 0.1%.\(^2\)

The increasing share of foreigners at the very top coincides with an increase in workers aged in the late 1990s and early 2000s (Figure 6). Due to the way the sample was constructed, one would expect the top 1% to grow older over time (and indeed, those aged 65 years and more enter the group only starting in the early 1990s). This increase in younger cohorts among the top 1% is likely due to the immigration of mobile high-skilled workers who found well-paying employment opportunities in Switzerland. In addition it may reflect an increase in the skill premium paid to high-skill professionals.

Figure 5 finally shows how the share of self-employed within top groups has been declining since the mid 1990s. While their overall share has remained remarkably stable around 10% of the labor force, they used to be strongly overrepresented at the top. While self-employed still fare well within top groups, their share among the top 0.1% was cut in half, from over 50% in the 1980s to mere 27% in 2010. One possible explanation for this decline is that very successful entrepreneurs have become more likely to change the legal status of their business or that their business is bought by a large firm, hence they become employees.

\(^2\)Note that these are not the infamous foreigners who reside in Switzerland based on a preferential tax treatment. These taxpayers benefit from expenditure-based taxation, but they are not allowed to work or engage directly in any economic activity in Switzerland and are therefore not included in the OASI data.
Figure 3: Share of women in top income groups and in the total labor force

Figure 4: Share of foreign-born in top income groups and in the total labor force
Figure 5: Share of self-employed in top income groups and in the total labor force

5.3 Top income mobility

The two panels in Figure 7 show the persistence of top 1% and top 10% earners, in their respective group after time spans of 1–15 years. While there clearly is movement in-and out of the top 1% group over time, after 10 years still around 40% of the members are found in that group again (unconditional on being at the top throughout the whole time span though). After 15 years, a third of a working life, more than 20% still make it into
that group.

During the 1980s mobility was increasing, yet it has remained stable since the 1990s, the period when observed top income inequality has increased. This is confirmed by Figure 10, which plots the persistence across income deciles after 10 years (i.e., the diagonal of a mobility matrix). During the three observed decades, mobility was lowest in the 1980s and highest in the 1990s. Between 2001 and 2010, mobility seems to have decreased again. Figure 11 confirms this image. The correlation in permanent income ranks decreased slightly during the 1980s, but started increasing again in the early 2000s.

When looking at mobility in different subgroups (Figure 8), two things become apparent. First, throughout the period, women have a higher earnings mobility at the top. This is likely due to gender-specific career patterns, where women have more often interrupted labor careers as they take up family responsibilities. It is also possible that women select into different types of high-paying jobs, e.g., jobs with a determined contract. Related to this, it is further possible that women are less likely to be part of large networks, sometimes dubbed as “old boys’ clubs”. These social and business connections are sometimes claimed to play an important role in access to prestigious, well-paid positions and the observed underrepresentation of women (Marini and Fan, 1997). Second, overall mobility and mobility among foreign-born and self-employed has increased, approaching the level of mobility of women at the top. Despite the different representation of these groups at the top, it suggests that once someone has reached the top, the chances to remain or drop out again are similar for workers with different backgrounds.
5.4 Mobility over the total income distribution

Income mobility not only affects inequality at the top but over the whole distribution. To assess the effect of annual variations in income on overall inequality, I compare the
Gini index of annual vs. permanent incomes. I measure permanent income as 3- and 5-year averages, respectively, of annual income. Figure 9 shows how overall inequality is substantially reduced when measured by permanent rather than annual income. Yet mobility has not been large enough to counteract the observed trend in increasing labor income inequality. Rank correlations of incomes averaged over 5 years depicted in Figure 11 indicate that long-term mobility in permanent income has increased slightly during the 1990s. Similarly, Figure 10 shows how overall mobility did increase somewhat despite rising inequality. Especially in the middle of the distribution mobility over 10 years has increased since the 1980s. Mobility in and out of the top decile did increase as well, however to a smaller extent than mobility in lower parts of the distribution. What raises some concern is the fact that persistence in the bottom decile has increased. This suggests that these individuals are captured in a low-income trap—at least when looking at labor incomes only.

![Figure 9: Gini index in annual and permanent income](image-url)
Figure 10: Share of taxpayers in the same decile as 10 years earlier

Figure 11: Percentile Rank Correlation

Note: Correlation in percentile ranks of income averaged over 5 years.
5.5 Results Based on Cantonal Income Tax Data

![Graph showing percentage of taxpayers in different deciles over time.]

Figure 12: Regional heterogeneity in income mobility at the cantonal level

Note: Share of taxpayers in the same decile in 2010 as they were in 2001. Sample includes 17 cantons (LU, SZ, UR, OW, GL, ZG, FR, SO, BS, SH, AR, AI, SG, GR, AG, TG, GE). See text and Table A1 for details on data availability. Source: canton-level federal income tax data, own calculations.

The sample of top 10% tax payers only.

Restricting the sample to taxpayers who were in the top 10% at least once in a given time period, gives a picture of even less mobility. Figure 14 presents two mobility matrices, which show the percentage of taxpayers according to their position in the start year (y-axis) and their end year (x-axis). The diagonal of this matrix indicates the percentage of taxpayers who had the same rank at the beginning and the end of the time period considered.

In addition, the position “0” indicates all those taxpayers who moved into- or dropped out of the top 10%. The top left entry of Panel a) of Figure 14 indicates that 39.1% of taxpayers, who had entered the top 10% group at some point after 2001, were no longer there in 2010. The first column of the matrix indicates quite large fractions of taxpayers who were in the top 10 decile in 2001, but dropped out by 2010. Unsurprisingly, this risk was by far smallest for the top 1%. Only 14.8% of those in the top 1% had dropped out of the top group 10 years later. More than half of the top 1% claimed this position again in 2010. Unsurprisingly, these percentages are higher in the two-decade
window (Panel b) Figure14). Even among the top 1%, around one third did not survive at the top. Accordingly, only 28.7% were still at the very top after 20 years.

The first row of the matrix indicates how many percent made it to the top after having started somewhere below the top. In 10 years, 2% of taxpayers made it to the top 1% from somewhere below the top 10 group. In the window from 1989-2010 this percentage doubles to 4%.

These figures must not be confused with the chances of moving from somewhere below the top 10 to the top 1% for the whole population, since the sample only consists of taxpayers who belonged to the top 10% group at some point in the time span considered. The interpretation is what chances are to move to the top 1% conditional on being in the top 10% group at least once at any point time up to (and including) 2010.

Figure 13: Percentage of taxpayers in the same top percentile after a decade, overall and by canton

Note: Lines represent the diagonal of the corresponding mobility matrix. Sample includes 17 cantons (LU, SZ, UR, OW, GL, ZG, FR, SO, BS, SH, AR, AI, SG, GR, AG, TG, GE). See text and Table A1 for details on data availability.
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<th>40%</th>
<th>90%</th>
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Figure 14: Percentage of taxpayers in the same top percentile after 10 or 20 years

Note: Sample 2001-2010 includes 17 cantons (LU, SZ, UR, OW, GL, ZG, FR, SO, SH, AR, AI, SG, GR, AG, TG, GE). See text and Table A1 for details on data availability.

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<th>Relative row frequencies.</th>
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Figure 15: Percentage of taxpayers in the same top percentile after 10 or 20 years

6 Conclusion

In this paper I shed light on the composition of top earners in Switzerland and how long top earners remain at the top. I find that women are strongly underrepresented among top earners and that they exhibit higher mobility. Women are therefore less likely to reach the top, and once they are there, they are more likely to move down the income distribution than men. Foreigners on the other hand are overrepresented at the top. This suggests that Swiss firms have been successful in the past decade in attracting high-skilled foreigners.

Even though overall mobility as well as top income mobility have increased, this was not enough to counteract the rise in income inequality observed in Switzerland over the past two decades. This study is based on full-population social security earnings data, hence the results imply that it has become harder to move to the top of the income distribution through work. Since also wealth is highly concentrated in Switzerland (see Föllmi and Martínez, 2016), this means that both, labor and capital incomes become more concentrated in the hands of a small elite.

The present work is still in progress. The mobility measures presented so far do not yet take into account life-cycle effects. I will present estimates on income mobility fixing cohorts. In the future I will further include top labor income shares of 5-year average incomes and compare them to annual top income shares. This will indicate to what extent this popular snapshot measure of inequality overestimates top income inequality and whether an increased variability in top incomes has driven top income shares. Furthermore I would like to include income elasticity estimates controlling for gender and age. An interesting extension would also be to look further into regional differences in income mobility and how they correspond with top marginal tax rates in the different areas.
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Appendix A  Data

Notes: This figure displays the total resident population of Switzerland aged 20-64 and the total population captured by our sample aged 20-64 (which are all individuals with a social security record in any year 1990-2010 and resident in Switzerland in 2010 so that they can be matched to the Census 2010). The numbers show the fraction of individuals in our sample vs. the full population. Coverage is closer to one in recent years (due to deaths and migration).

Figure A1: Sample coverage of matched OASI-Census data

Figure A2: Age distribution in the raw data
Figure A3: Cutoffs to belong to different top groups
Table A1: Availability of Panel Income Tax Data in Different Cantons

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Appendix B Additional Tables and Figures

B.1 Additional Tables

B.2 Additional Figures

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