“Youth employment in Argentina: first effect of the pandemic” 2021

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Abstract

This paper explores the working youth (15 to 30 years) employment determinants for Argentina during the 2004-2020 period. Main individual attributes are combined with labour demand requirements in order to explain the labour income. After a description of the labor market for young population, its main challenges are contrasted during the current covid crisis in order to check how the pandemic get through the youth dimension. Young workers present the worst employability gradient (informality, temporary work, part time, low-skilled tasks) which firstly face the consequences of the pandemic crisis. As the lowest tail of the distribution is drawn off (overwhelmly represented by youngest women and low skilled workers), the average youth income rise, while a decline in labour participation was remarkable in the pandemic pick, in which only one between four young people decide to participate in the labor market. Based on nationally representative, this study utilizes a Heckman model regression in order to correct the selection bias probability of participating in the labor force and obtaining a job. It finds that such probability declines substantially as lower is the economic family background. For men it clearly enlarges with the child presence on household while for women is reduced or even decrease her probability due to the undertaking of care tasks.

Keywords: youth employment, labor market, income, pandemic effect.

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Introduction

The labour incomes determinants are subject to controversy and debate. A first approach, coming from neoclassical theory, asserts that wages equal the value of marginal productivity. Others, however, stress the role of labour demand. Thus, theoretical contributions broadly divide themselves in two camps: on the one hand, human capital theory emphasizes labor supply (and education as a determinant of productivity), and, on the other, theories of labor segmentation and structural heterogeneity see wages as related to attributes of labor demand, such as type of job and economic sector. Nonetheless, determinants of youth employment can be found midway and considering both approaches is necessary when dealing with such a particular labour market.

The issue of youth unemployment receives considerable attention in central countries. One of the main reasons has to do with demographic factors: an inverted pyramid coupled with problem poses a challenge to pension systems. Given that labour in both age cohorts are mutual substitutes, demand prioritizes applicants from the adult population, a problem itself exacerbated by rising retirement age (Bertranou & Casanova, 2015). There is also a “youth split” which sums up controversies surrounding job instability. Problems associated with first jobs and job rotation can define the willingness or unwillingness in labor transitions. (Jacinto, Wolf, Bessega, & Longo, 2005). Despite these flows are higher in early steps of life, a wide debate exists on the voluntary character of these transitions. When it comes to inflows to the job market, they are usually attributed to non-economic factors such as formal education. Similarly, the outlining of an uphill career is also suggested, seeking successive "better" jobs given the lack of knowledge of the availability of jobs and their characteristics. The youth period could correspond to the exploration of different occupations according to their attributes, in search of better matching by passing through different jobs, as stated by Topel and Ward (1992). The definition of "better" could not only be associated with remunerative characteristics but also with greater flexibility, autonomy and achievement, not minor attributes in the young segment

(Jacinto, et. Al; 2005). So far, the higher voluntary turnover is attributed to characteristics of the labour supply.

Other arguments point to the presence of involuntary mobility, explained both by the endowment of characteristics in young people and by the effect of occupational segregation processes. Among the individual attributes, the lower endowment of specific human capital stands out, accumulating less experience in the job and possibly lead to lasting negative effects on income. In this way, the cost of direct dismissal would be lower based on a compensation calculation proportional to the years in the firm. Regarding labour segmentation, the activities that mostly young people perform stand out for their low productivity, high turnover, and low accumulation of specific knowledge. Consequently, the performance of smaller peripheral tasks in the business organization chart complements the lower cost of direct dis-missal with a lower indirect cost derived from the ease of substitution of these functions (Osterman, 1980).

Thus, age looks as one of the main determinants of access to top positions, even above certain levels of schooling. (De Ibarrola, 2016). In this way, it could be questioned what deter-mines that a young person could be hired in a context of increasing competition, which are the reasons that explain the decisions to get in (or not) the labour market and which are the proper instrument to estimate the determinants of youth income if it is assumed that it differs from the rest of the employed population. The literature review suggests that individual attributes are the main income predictors, acquiring a central relevance in this approach compared to other attributes. However, the characteristics of the job position held by young people suggest that labor demand plays a leading role in determining labor income.

Concerning the Argentine case, Beccaria, Maurizio & Vázquez (2015) point out that rising labor formalization after 2003 turned out weaker among the young, who were also the most affected by the labor quality issue. On the other hand, Bertranou & Casanova (2015) show a widening gap between young and adult informal workers

starting from 2009, reversing a parallel trend which could be tracked back even to the eighties.

Regarding the international experience, Bussolo et al. (2019) show important challenges for the younger cohorts in the European market. Greater segmentations, partial flexibilities, and a deepening of intergenerational inequality were some of the edges of this phenomenon. Add-ed to a labor polarization scenario, educational inequality also amplifies the distances of youth labour insertion. The segmentation process appears early through the differences in the educational quality received, relegating the number of years of formal education (Hanushek & Woessmann, 2009) In this line, Zimmerman (2018) exposes, for the case of Chile, the role of elite universities in the astounding increase of chances of arriving to the top 0.1% income and the management positions of the main companies, exclusively in case of coming from schools of equal status. He then points out how certain networking effects help to widen inequalities of origin, relegating merit as the main reason for promotion.

On the other hand, for a lower level of education, early school dropout inexorably leads to a hazardous job placement, and, in many cases, urgent. The intergenerational transmission of poverty can also be amplified by gender factors. Households with requirements for reproductive and care tasks, together with insufficient income to afford them, obligates to internalize it in the household. Usually, they are mainly faced by women and girls, adding a new difficulty in their possibilities of insertion (Pérez, 2018). Lastly, intermittent work is especially relevant to young people, while the decision to participate is affected by specific conditions. Some of these could be classified as voluntary reasons chosen by the individual. Training tasks or job search linked to the outlining of an upward career3 are the most prominent. There is also an-other group of involuntary reasons concerning to the labour demand, low productivity, high turnover, and low accumulation of specific knowledge. Although the enrollment in the youth segment has attracted the attention of the literature, the selection problem has not done the same in the income estimates. This work then aims to identify the conditions that influence the inflow to the labour market, to achieve a

better determination of income, and at the same time understand the causes that justify its intermittence in the job market.

The next section describes the morphology of young employment in Argentina's urban ag-glomerates along with the evolution of real hourly employment-related income in the 21st century. The relevance of this description is explained by the first impact of the COVID-19 pandemic on both job supply, working conditions and income, with results that may be paradoxical.

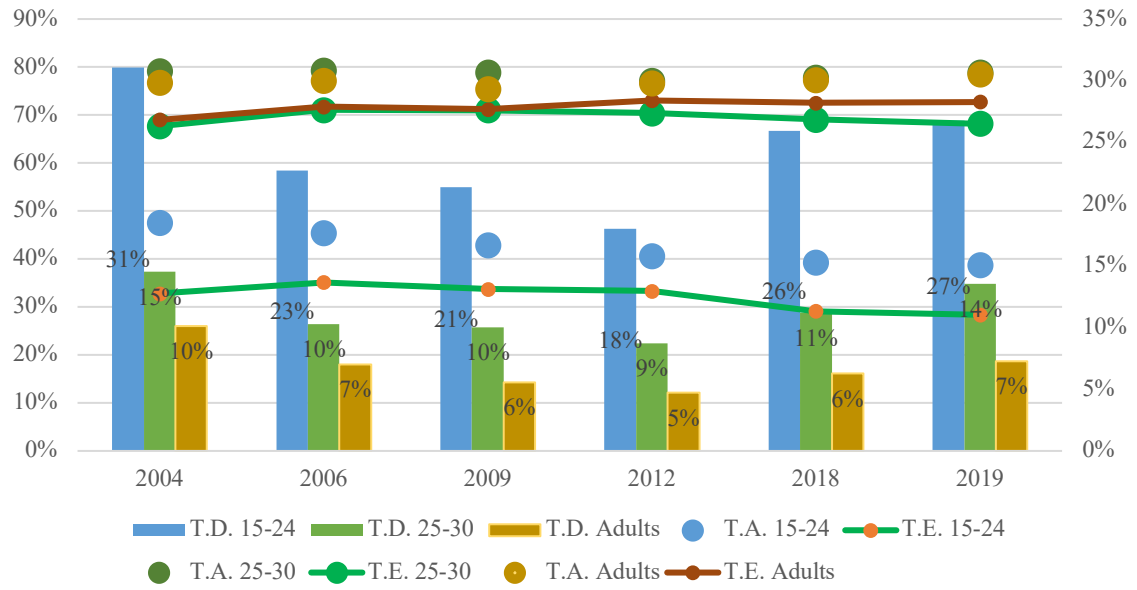
The third section explains the methodological decisions that underpin the use of a selection equation (Heckman, 1979) for the entry (or not) of the young population into the labour market. Both linear regression and corrected regression are then used to estimate the determinants of real hourly employment-related income in the young population. You also specify the sources of information used.

The “Results” section describes and analyzes the results of Heckman's selection equation, such as the regressions used. The most important evidence regarding young people's job market entry selection bias is associated with gender, the presence of minors at home, and the socioeconomic level of the family. About the determinants of real hourly employment-related income in young people, the elements that weigh the most are the endowment of human capital and the quality of the job (status). Finally, points out that, the first effects of the pandemic on the determinants of young employment in Argentina, does not provide any elements to argue that both the selection equation and the results of the OLS are substantially modified.

Youth employment morphology in Argentina

As previously stated, youth and labor market relationship differ in several ways from the overall population. A notoriously lower labour participation, a lower human capital endowment and job training, the importance of reproductive and personal care tasks are some of the main angles in which the youth present it differences. Besides, the Argentine macroeconomic empirical evidence adds its own flavor to an already complex behavior.

Figure Nº 1. Labour force participation rate and employment rate (left axis) and unemployment rate (right axis) by age. Urban conglomerates, Argentina, 2004-2019



Note: T.A: labour force participation rate; T.D: unemployment rate y T.E: employment rate Source: authors calculations based on EPH-INDEC

After the local great depression of 2001-2002, the youth participation presented a high rate in the first years, surpassing even the longest-lived segment. This situation was reversed in the decade during the heat of the economic recovery which allowed better education opportunities for young people disregarding productive tasks.

The considerable drop in youth unemployment verified up to 2012, was mainly explained by the drop in the activity rate; job creation at the young age segment stood out due to its weak-ness. Indeed, part of these young population, instead of having turned to the labour market, did the same in the educational world1, also observing a fall in their contribution to the household budget. Not only have young people gradually left the labour market, but also those who remained did so with less intensity and relevance for the household.

Table Nº 1. Correspondence between credentials and occupational categories.

2009 – Total population – 21 to 30 years								
	No schooling	Incomplete elementary	Complete elementary	Incomplete high school	Complete high school	Incomplete higher ed.	Complete higher ed.	Total
Unskilled	54,5%	41,6%	43,8%	41,5%	32,0%	19,0%	4,1%	27,7%
Operative	41,7%	57,3%	50,9%	54,2%	57,7%	47,9%	32,9%	50,0%
Technical	3,8%	1,0%	4,1%	3,0%	9,1%	25,8%	36,7%	15,6%
Professional	0,0%	0,1%	1,2%	1,2%	1,2%	7,3%	26,4%	6,7%
Total	100%	100%	100%	100%	100%	100%	100%	100%
2019 - Total population – 21 to 30 years								
	No schooling	Incomplete elementary	Complete elementary	Incomplete high school	Complete high school	Incomplete higher ed.	Complete higher ed.	Total
Unskilled	67,9%	42,1%	42,9%	37,2%	30,0%	19,0%	5,0%	26,8%
Operative	32,1%	55,3%	55,0%	59,2%	59,2%	52,1%	34,9%	54,0%
Technical	0,0%	1,6%	2,1%	3,4%	9,7%	22,9%	40,6%	14,9%
Professional	0,0%	1,0%	0,0%	0,2%	1,1%	6,0%	19,5%	4,3%
Total	100%	100%	100%	100%	100%	100%	100%	100%

Source: authors calculations based on EPH-INDEC

Even so, those young people who decided to come into the job market faced greater challenges. Unemployment rates continued to be by far the highest and bear a notable presence in the sub-30 segment; the slowdown in the economy and its reduction in the number of hires had a full impact on new entrants. Although the decline affected both young people and adults, it is the former one who contribute with the largest number of entrants, and therefore those who are reached by the highest relative unemployment. In turn, real hourly employment-related income is affected by the role of low (or lack of) seniority and experience in the position and, therefore, less accumulated specific human capital.

Both, the increase in educational assistance for young people does not necessarily imply a voluntary decision to study and remain inactive. Poor hiring prospects can extend the educational path, masking an involuntary decision. Certainly, many young people, especially men, move directly from inactivity to employment, without going through a search process that leads to unemployment.

The analysis of the job qualifications helps to understand the requirements of the demanding sectors. In this sense, the gap observed between youth and adults for the highest grades is not fully explained by educational breadth. Although the lack of correspondence is not exclusive to the former, it is sizably larger among the youngest workers. The low demand for skilled labour is far from matching to an increasing supply, having expanded this phenomenon during the period analyzed.

At the same time, the educational endowment contributes much less to explain the distances in low grades, where young people have the same participation as the average in the lack of instruction, but they work more intensively in tasks with zero requirements. These workers presumably receive much less on-the-job training, sinking the indirect cost of firing as the directs one do.

Finally, the organizational structure itself adds an additional struggle. Youth participation in managerial and high-ranking activities place well below from adults, also presenting a de-creasing trend. This is confirmed even despite a higher participation

in occupations that operate with computerized systems and equipment, associated with greater added value in the company. In this way, the hypothesis of the adjustment variable for the employing firms is reinforced, not only due to a lower firing cost given their low seniority, but also to the marginal role in the company's tasks schedule (easier to substitute) and the lower investment in specific training done.

The first impact of the pandemic on youth employment

Argentina starts its lockdown as soon as the health crisis caused by COVID-19 began in March 2020 (second quarter 2020). In this sense, only essential jobs could perform face-to-face tasks, while the rest must virtually rearrange, causing that several jobs could not be adapted. Around the third quarter of 2020, certain activities were recovering at a slow pace operating under strict conditions.

At the time, this document is being wrote, economies are struggling to find solutions to the devastating impact of the covid 19 pandemic. Among other dimensions, it has overwhelmingly affected the world of work, expanding, and aggravating previous challenges and creating new ones. Particularly, young people face some of the main difficulties due to preceding working conditions, while they present new channels in which the crisis hit disturbs the labour market (Organización Internacional del Trabajo, 2020). After a general agreement in which young unemployment rates doubles o even triples the aggregate ratios, it should not surprise to observe the same proportion, even with alarming results that reach a 35% of unemployment rate for young workers. Nonetheless, the employment rate shrinking outstrips the unemployment result, concluding that another scheme is operating in order the young unemployment is not even larger. The decline in the young labour participation was remarkable in the second quarter of 2020 (the pandemic pick), in which only one between four young people decide to participate in the labor market. In other words, despite the inactivity rate increases in the population as an all, the “discouragement effect” due to the tough conditions to find a job, disproportionally hits the young residents.

The first impact of the pandemic in Argentina shows a drop in the activity rate, in agreement with the one the ECLAC-ILO (2020) finds for Latin American as a whole. The decrease in the activity rate by 19% in young people between the age of 25 and 30 is remarkable as labour market participation usually exceeded 77% in the period 2004-2019; by the second quarter of 2020 it does not reach 64%. It is also relevant that the recovery of the third quarter of 2020 barely passes 70% in the activity rate. As for the age range of 15 to 24 years where the activity rate is usually 40%, the decrease is proportionally higher, climbs to 26%. Although the drop affected both males and women in similar proportions, for the age group 25-30 years there was a disproportionally impact on women with a drop of more than 20%, compared to men's 15%.

In a like manner, the hard outcomes are expressed in the recovery too. In the third quarter, as some re-strictions were abandoned, young activity rate barely passes 70%. As for the age range of 15 to 24 years where the activity rate is usually 40%, the decrease is proportionally higher, climbs to 26%. Although the drop affected both males and women in similar proportions, for the age group 25-30 years there was a disproportionally impact on women with a drop of more than 20%, compared to men's 15%.

Not only many young people return to the labour market, but also the unemployment rate presents a decline as job creation overtake both variables. Regarding the employment rate, there is a fall both in the total population (16%) and in young people. In the age segment between 25 and 30 years the employment rate stood at around 69% in the 2004-2019 period, but in the second quarter of 2020 it fell to just over 53%, representing a 20% drop. Meanly, the age range of 15 to 24 years stood at 17% during stricter restrictive measures, implying a 40% reduction from previous years. The fall in the employment rate hit equally both males and women, but it is worth noting that in the case of the 15-24 years age group women were found themselves affected with a fall of just over 45% of employment, while for males the de-

crease was 28%. In the third quarter, the recovery in the employment rate is significant, but it fails to compensate the fall in the second quarter; for 15- to 24-year-olds it is around 21% and for the age range 25 to 30 it fails to exceed 61%.

As a result, the increase in the unemployment rate was significant in both the adult population where it increased by 33% and in young people. In the 25–30-year group, the unemployment rate annually increased by 19% in the second quarter of 2020, implying a gap close to 16%.. More dramatically, for the age range of 15 to 24, unemployment climbed from 27% to 34%, a proportional increase of 28%. It is worth clarifying that, as ILO (2020) states, young people were already facing growing difficulties in labour markets, both in obtaining a job and in terms of income. The period 2004-2019 was not particularly virtuous for the Argentine youth employment, with the unemployment minimum in 2012, overlapping with the last peak in Argentina's economic cycle. Thus, its macroeconomic elasticity determines the 2020 as one of further losses for young people.

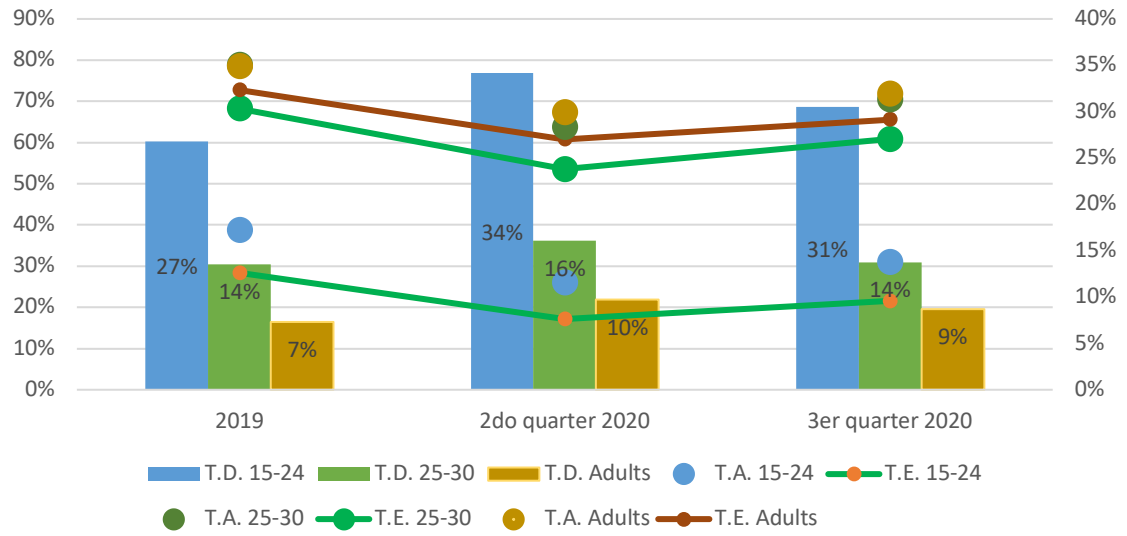
Disaggregating the evolution of unemployment by sex, a dissimilar impact on males and women according to age groups is observed: while in the 15-to-24 cohort unemployment grew by 18% in males compared to 40% in females, in the population of 25 to 30 years the unemployment rate in females increased by 11% and in males by 26%. It should be noted that de-spite unemployment having affected males more than women in the adult population, the rate of unemployment of women remains higher than in males in all age groups, reflecting persistent gender asymmetries.

In the third quarter of 2020, the unemployment rate declined for the adult population by 20% above the second quarter of 2019. Meanwhile, for young people between the age of 15 and 24, it is 30%, four percentage points lower than in the second quarter. For the age range 25-30 years the recovery is steeper, and the unemployment rate returns to the previous levels of the second quarter of 2019.

However, new entrants intensify the usual challenges. At first, the hourly intensity not only could not return to previous measures, but also continue its decline (partially

due to part-time scheme). A drop in average working hours between 2019 and the second quarter of 2020 is found in the adult population (8%), as well as in young people. The drop in the 15-to-24 cohort affects females (13%) more than males (9%). Young males of 25 to 30 show a stronger reduction (13%) than females (7%). However, by the third quarter of 2020, the population over the age of 30 recovers slightly without reaching 2019 levels, while the recovery of young people between the age of 25 and 30 is stronger, attaining pre-pandemic figures. A different story can be told of the age group between 15 and 24 years, whose average working hours continue to fall.

Figure Nº 2. Labour force participation rate and employment rate (left axis) and unemployment rate (right axis) by age. Urban conglomerates. 2019-2020



Note: T.A: labour force participation rate; T.D: unemployment rate y T.E: employment rate

Source: authors calculations based on EPH-INDEC

Unsurprisingly, in the context of widespread job losses, the first to suffer the effects are employees not registered on social security. Likewise, the young informality rates

range almost 65% requiring an extensive review to find such ratios (post crisis period). Thus, the rate of in-formal workers for the adult population decreases by 33% between 2019 and the second quarter of 2020, falling to an absolute minimum in the 21st century. In the age range of young people from 15 to 24 years the decline is milder (14%), but for the age range of 25 to 30 years the fall is no less than 21%. This result is even more shocking after the non-registration dwindling in the pandemic crisis pick, evidently not due a formalization process but also for job destruction. Moreover, it is specially amplified for young women whose unemployment rate increasing was the largest during pandemic as the informal workers were those who initially were removed from their jobs.

Concerning real hourly employment-related income, the 57% increase in the adult population between the end of 2019 and the second quarter of 2020 is surprising, both because of the drop-in working hours and the decline in employment of informal employees who tend to earn lower working incomes given their non-registration status in social security. In the case of young people, the situation is similar, but levels differ in the 15 to 24 years age group the increase in actual working income between 2019 and the second quarter of 2020 is 35% (24% in males and 54% in females). Then in the third quarter of 2020, income fell again coinciding with the re-entry of unregistered employees. The age range 25-30 shows an increase between the fourth quarter of 2019 and the second quarter of 2020 of 60%, higher than the adult population. The situation was more beneficial for males (74%) than females (37%). By the third quarter of 2020, with the re-entry of employees not registered with social security and the increase in working hours, the actual working income of the hours fell by 20% com-pared to the second quarter but remaining above 2019 levels.

The difference in outcome on real hourly employment-related income by age and education level is also noteworthy. In the group of 15 to 24 years the largest increase is verified in the incomplete tertiary/university and incomplete secondary strata. Gender disaggregation shows that the effect is more pronounced on women in the incomplete and complete secondary tertiary or university strata, more than doubling

the hourly labor income of 2019. While in the 25 to 30 age range, the largest increase is at the incomplete tertiary or university level. The effect is verified for both females and males.

To sum up, the employment shocks implications in the average income must be prudently understood. The upsurge in the “pandemic pick” remuneration must not be assumed as a re-version from the 2018-2019 collapse. On the contrary, workers with the worst employability gradient (informality, temporary work, part time, low-skilled) are taken away from the income distribution as they are those who firstly face the consequences of the pandemic crisis. That is to say, the lowest tail of the distribution is drawn off, overwhelmingly represented by youngest women and low skilled workers), so the average income rise. Consequently, the third quarter (slow) recovery states a decline for all individual attribute, as precarious employment which had been took off from the market, starts to be promoted. Still, the hourly real income stands below the pre pandemic target concluding that the crisis extent is far from being outdone.

Data base and methodology

Undoubtedly, entering the labour market constitutes a milestone in people's lives as well as their transition to formal education. In this way, any estimation and weighting effort must first assume the effect of education on employment, which does not take away from considering the wide range of variables involved (individual attributes, the task performed, the productive sector, the job quality, hourly intensity and, of course, its pay.

Complexity in identifying both individual education and the aggregate schooling range of a specific population correlates with real hourly employment-related income for a wide number of reasons, but does not necessarily infer causality (Morduchowicz, 2004). For the most part, the different studies use instrumental variables for a more precise conclusion. Some of the best known is the use of the birth quarter as an instrument of individual education (Angrist & Krueger; 1991), or the compulsory

schooling laws and minimum age for entering the labour market (Acemoglu & Angrist; 1999).

Studies taking gender into account are noteworthy for correcting female earnings given the enrollment that women have in the labour market. Those with the highest educational endowment tend to present the highest activity rate and therefore their educational returns are usually overestimated in the total sample (or discrimination is underestimated). Although different studies incorporate Heckman's methodology for the gender variable, they do not do so specifically for youth employment. Recent research makes an approach in this field; for in-stance, for young women in Malawi, the bias in the income estimation is corrected against men (Kim, 2020). However, once again the focus is on gender issues and not on the youth segment of the age distribution. Given the gap observed in the literature, especially for Argentina, this work proposes to use Heckman's methodology to estimate the determinants of real hourly income from the main occupation for the young age group.

Data from the argentine statistical households living conditions (EPH for its Spanish name) is the microdata used to retrieve individual and job characteristics such as schooling level, activity status and economic activity worker skills, employment-related income and hours worked, among other variables relevant to the proposed models. Thus, according to the different economic cycles for the period 2004-2020, the real hourly employment-related income of the main occupation will be estimated, deflated by the basic food basket index used in the income poverty measurements.

Heckman correction

For the estimation of the determinants of the real hourly employment-related income of the main occupation for the young age group, two models are proposed. The first uses a linear regression by ordinary least squares (OLS), while the second model incorporates a Heckman correction for the inactive population. In this way, the functional form of the models is presented:

$$OLS: lnw_i = \beta_0 + \beta_1 NivEd_i + \beta_2 CatOc_i + \gamma_0 T_i + \gamma_1 x_i + u_i$$

$$Heckman(firststage): Inactive_i = \phi_0 + \phi_1 PosHog_i + \phi_2 PresNi_i + v_i$$

$$Heckman(secondstage): lnw_i = \beta_0 + \beta_1 NivEd_i + \beta_2 CatOc_i + \gamma_0 T_i + \gamma_1 x_i + \delta_0 \lambda_i + e_i$$

Where ln w is the logarithm of the real hourly wage, NivEd is the Educational Level (incomplete high school, complete high school, incomplete higher education y complete higher education), CatOc is occupational category (private-sector formal worker, private-sector informal worker, public-sector formal worker, public-sector informal worker, self-employed and employer). T corresponds to time dummies. As well, the model has control (x_i) variables like region of Argentina, age, and sectorial categories.

Additionally, the Heckman equation includes the variable lambda (λ), corresponding to the Mills inverse to control for possible selection bias from non-randomly selected samples or otherwise incidentally truncated dependent variables (Heckman, 1979). Finally, u_i, v_i and e_i correspond to shocks or residuals from their respective models.

The Heckman model has two stages, which are joined for a result. The first one includes the selection equation, which will determine the probability of entering or not in the labour market, and therefore a reweighting of the sample. Meanwhile, the second exposes a multivariate regression that controls the influence on income of sociodemographic characteristics and labour insertion.

In the first stage of the Heckman model, the variable returned for the “Inactive” column takes the value “1” if the individual is employed, while otherwise it takes the value “0” if is inactive (persons outside the labour force). In this case, the selection bias comes from not observing those young people who decide, for voluntary reasons, frequently associated with education, or involuntary (demotivation), to postpone their entrance into the labour market. Note that the sample on which the regression is applied will consider the characteristics of those who enter the market vis a vis those who, for one reason or another, do not. Thus, a sample reweighting will be necessary to correct the bias of considering exclusively those who declare income from the subpopulation who work.

Consequently, a central request is to establish the variables that make up the selection equation that seeks to correct the selection bias course. The benchmark was not easy, and it is certainly plausible to criticism. To overcome the situation, a detailed descriptive analysis of the labour market and the income dynamics of the young age group was carried out. Likewise, the abundant bibliography was considered in search of a certain consensus and recurring phenomena.

One of the main variables that conditions labour market entrance is the individual gender. Given its importance, this work carries out the regressions, in its two stages, separately for men and women. Thus, the weights of the determinants of real hourly employment-related income for each gender and age range can be appreciated.

Accordingly, the occupational gaps for young female workers compared to their adult peers are significant. In addition, a significant share still lives in the family home: they are neither heads of household nor wives but “daughters” (Bertranou & Casanova, 2015). Given the apparent not need to absorb productive tasks, it is understood that many women assume, almost exclusively, domestic work or reproductive tasks. Holzer & LaLonde (1998) conclude that the main source of instability for young women is linked to marital status and the presence of children, based on the high rates of voluntary transition (resignation instead of dismissal) to inactivity for those who drop out of high school. Considering that most of young people who neither study nor work are women, care tasks should have a relevant explanatory power in the Argentine youth insertion.

Another determinant of entry to the labour market by young people is the socioeconomic position of the household (PosHog) from the same household survey. It is possible to think that households with larger resources can outsource or contract private services to perform reproductive tasks, avoiding having to internalize them in their own young members. Meanwhile, low-income households spend a large part of their members' time on domestic tasks, limiting their ability to enter the labour market.

Furthermore, its inclusion in interaction with the gender variable is of special interest. From a classical perspective, the rational choice of women would lead to a lower workload, or not insertion, making employment compatible with caregiving and reproductive functions. These tasks fall almost without exception to the female sex, and especially to households without resources to afford it in the private market. It could then be thought that the family “chooses” which members take charge of these tasks and which of the productive tasks (maximization of joint utility, instead of individual leisure-work maximization). Along these lines, Trombetta et. al (2019) show an income effect for the upper quintiles, considerably reducing the gender gap in unpaid care tasks. This is mainly explained by the decrease in the time that women from wealthier households dedicate to unpaid household tasks. While high-income households can contract private services to carry out these tasks, low-income households devote a significant part of their members' time to domestic tasks, a task that women perform almost without exception, thus limiting their possibilities. of insertion in the labour market.

Likewise, an interaction is observed between the socioeconomic level and the minors care, therefore, the second variable in the selection equation is the presence of minors in the household (PresNi), given that households with higher resources spend more time caring for their children than their lower quintile peers. This phenomenon is also repeated in developed countries; "time with children" is presented as a luxurious good. Guryan, Hurst & Kearney (2008) find for a group of developed countries that those parents with higher income and educational level spend a considerably higher time share with their children than those in the lower distribution tail. The authors verify this phenomenon even despite being the former who also presents a higher labor intensity outside the home. In this way, an income elasticity would be observed not only positive but also higher than one. Greater household resources are correlated with more time spent on parenting, contrary to what would lead to a higher opportunity cost.

Income distribution for quintile is thus included as a per capita family variable controlling for the socioeconomic position of the household. This not only contemplates movements based on monetary perception but also for demographic reasons, as the number of members in the household is considered. At the same time, the presence of children is added as a control variable, disentangling their care with the rest of the domestic tasks. On average, 65% of young people who neither study nor work live in households where children under 14 are present (Bertranou & Casanova, 2015).

It is worth noting that in this study not only the presence of children in the home but also of minors is incorporated, considering any kinship relationship with the individual analyzed. Thus, the female activity shrinks with the increase of minors at home, while the male activity rate rises. In this sense, women see their possibilities of seeking paid extra-domestic work diminished, while men are induced to look for household income in the labour market.

As a result, the three variables considered, both individually and its interaction, present non-neutral effects on the labor participation and the hourly intensity. Therefore, these controls are included to correct a possible selection bias found in the sample analyzed for the young segment. (Heckman, 1979)

Results and Discussion

In this section, the results of Heckman's selection equation for both males and women are shown and analyzed first. It is observed that the lambda variable is significant, which pro-vides evidence to assert that there is selection bias in the population group of 15 to 30 years. In addition, the variables chosen for the selection equation, the presence of minors at home and, in addition, children under 3 years of age and the economic level of the household, turn out to be explanatory to the selection bias of young people as a population group.

The description and analysis of OLS results then shed evidence regarding the determinants of young people's time work income. The strongest explanatory variables

are the level of education, as an endowment of human capital, and the quality of the job.

A third paragraph points to the first effects of the pandemic on the determinants of young employment in Argentina, providing elements to argue that both the selection equation and the results of the OLS are not substantially modified.

Results of Heckman's selection equation

Concerning the selection equation, on the one hand, the significance of the “lambda” variable implies that the sample correction is relevant, and, therefore, there is a selection bias for the young stage. In this case, it is observed that the sign of the variable “lambda” is negative and significant, showing that the regression of ordinary least squares (OLS) overestimates the coefficients due to a selection bias. In other words, those individuals who are inactive will de-mand a higher income than those who are employed.

Thus, the variable that refers to the minors in households with age below 3, is always significant and positive for men, increasing the individual's probability of being employed. According to the higher household requirements, note that the need to internalize productive tasks is clearly verified in the male distribution. In the case of young women, it presents a much more diffuse pattern. For the 15 to 25-year-old segment, it is slightly positive: young women also take on productive tasks in the presence of minors, although with much less probability than in the case of men. However, reverse results are exposed for those between 26 and 30 years old, where having minors in the home entails a lower probability of entering the labour market. The latter is in line with what the literature describes for the internalization of both care and reproductive tasks.

Therefore, in view of minors in household, the opportunities to enter the labour market de-crease for women, since productive and paid tasks are much intensely assumed by men, even more likely than in the case of no dependent members. At the

same time, the fact that an old-er age corresponds to a higher real hourly employment-related income and a lower activity rate, reproductive tasks could be understood as a luxury good. In this way, a higher time distribution in the minors' care by those mothers with higher incomes will be expected.

Socioeconomic household backgrounds have strong implications for labour market insertion. The results show that for higher per capita family income, larger the chances of being employed. This inference would oppose the relationship between higher-income households and young people who postpone their entry into the labor market because of greater educational training. However, although a significant share of the inactivity rate is explained by non-economic activities such as education, another fraction is due to involuntary reasons.

Inactivity in young people, in many cases, is only a spot in paths in between unemployment or informal occupations. Frequently, it is associated with involuntary reasons such as erratic mobility or involuntary exit from the labor market because of demotivation. Young people not only present a higher labor mobility, but also move more intensely to unemployment and inactivity, in addition to presenting greater friction from unemployment to employment. Consequently, family budget does not seem to present significant differences between active and inactive young people, especially at the extremes of the distribution (Maurizio, 2011).

It should be mentioned that the dichotomic states are occupation and inactivity, leaving out the unemployed, who could be identified with the worst vector of individual characteristics. Although the unemployed are part of the active population, since they do not declare any income, it cannot be included in a typical income regression. In summary, the importance of socioeconomic origin presents a clear gender bias for adolescent employment, where the im-pact is higher for women. Although not exclusively but specially for them, belonging to high income households make a larger extent both in obtaining a job and in the expected income.

Results for young real hourly employment-related income determinants

For the general regression, the determinants that make up labour compensation are analyzed. These include the contributions mentioned from both theoretical currents mentioned above. Both the human capital approach (on the labour supply side) and the labour segmentation and productive heterogeneity (on the demand side) are combined to achieve an analysis that encompasses the influencing factors. The first highlights the educational improvement, including through the different individual credentials, the age and gender. Through the labour demand, it is added the different characteristics of the job such as the type of hiring and the production sector.

TABLE Nº 2 shows that gender differentiation displays a coefficient with strong differences between the “corrected” model and the ordinary least squares linear regression. For inactive women, who presents a lower human capital endowment than the observed in the specific sample, all discrimination is greater than the observed. For the total female distribution, the difference between market income and reserve income is usually considered, if the latter de-pends on personal characteristics and the stock of human capital, while the former only de-pends on human capital. (Perlbach de Maradona & Calderón, 1998).

If the variables for the distribution of young people are controlled, the coefficient acquires a significant negative value. This underestimation is since the vector of characteristics of those employed and earning income is higher than that of the excluded population. Only for the 15-20 segment does it become positive, showing that those young people who decide to stay out of the labour market would present the highest endowments. This may be due to a good proportion of women who remain inactive while increasing their educational qualifications, thus postponing their entry into the labour market, postponing income.

The remaining coefficients of the Heckman regression maintain the same correlation as a "censored" regression. Returns to education show a non-linear relationship: higher the credentials acquired; the “educational prize” grows more than proportionally. The corrected regression entails lower values, and it can be thought that there are several individuals with high endowments who did not enter the labour market.

The occupational category takes the private-sector formal wage earner as a reference, and their hourly income is only surpassed by formal public-sector wage earners, consistent with the best hiring conditions offered by the sector. Meanwhile, the remaining categories are at a disadvantage, with informal private-sector wage earners and the self-employed standing out. Note that the negative impact is higher for young people than for the total distribution, in-creasing the wage penalty. On the other hand, for both hiring categories, on average, the public sector earnings states above the private ones, a fact not less due to the Argentine public sector extent. The low participation of young people in the latter not only seems to be a lower income cause, but also a larger informality too.

The first impact of the pandemic on the determinants of income in young people

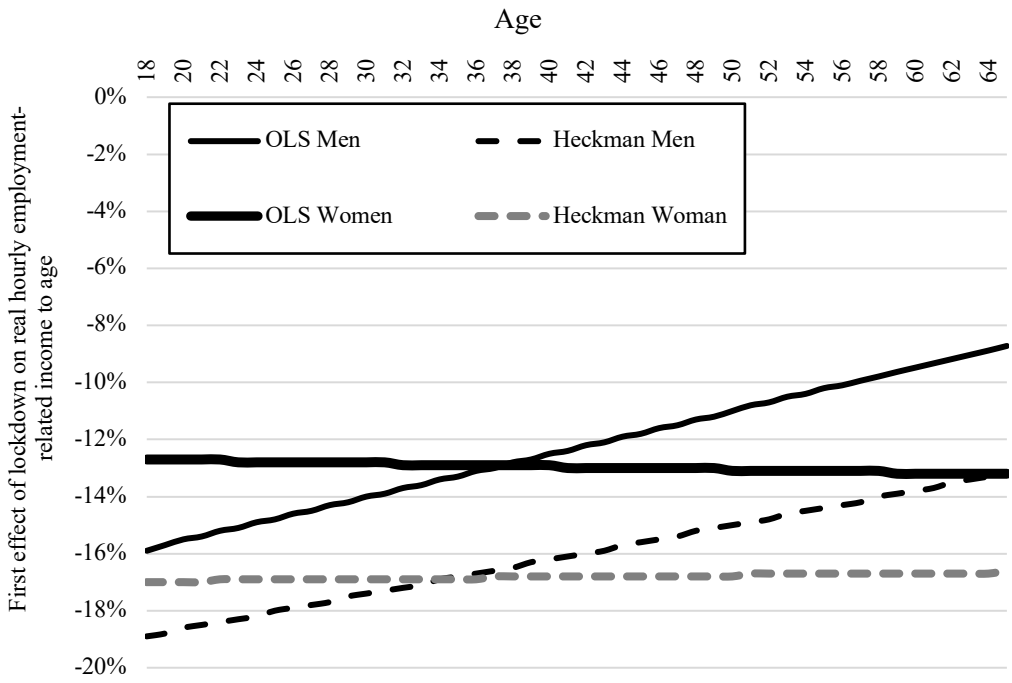
Regarding period checks, results are important to verify the first impact of the pandemic on young people's time work access. First, it should be noted that compared to 2004 real working income schedules increase steadily until 2015, which coincides with the boom in the economic cycle in Argentina. By 2019 revenues continue above compared to 2004, but fall from 2015 due to the macroeconomic crisis, this result provides an indication to explore, in other work, the correlation between young people's real hourly employment-related income and fluctuations in GDP.

However, the results for the second quarter of 2020 shown a slightly positive sign and with little significance, reinforcing the explanations tested above, i.e., the actual working income of young people increased during the pandemic year due to the forced departure of informal workers who have the lowest income along with the fall in working hours due to confinement.

Finally, it should be noted that the results from regressions for both the second and third quarters of 2020 show no change in the determinants of young employment and their income, the most relevant characteristics remain the endowment of human capital and the job quality. However, it is possible to quantify a first effect of the

pandemic at actual incomes which depends from the chosen model (see Figure No. 3). Heckman correction exposes a larger income reduction due to the worst individual attributes from those who stay away from the labor market. It is observed that the impact is larger for males, strengthening the results from the descriptive section.

Figure Nº 3. First effect of lockdown on real hourly employment-related income to age.



Source: authors calculations based on EPH-INDEC

Conclusions

As described in the second section youth employment shows a pattern of vulnerability to the adult population throughout the period analyzed. In line with the articles referenced both nationally and internationally, there is a clear gradient of job fragility for young people. This profile of labor vulnerability is summed up in higher unemployment rates, less job absorption and higher precarious and informal employment than the adult population. On the one hand, the marked instability and labour intermittency stems from persistent macroeconomic volatility. In this way, young people

are more affected during the general economic recession with a higher rate of layoffs, falling real hourly employment-related income and fewer hires, processes that disrupt the renewed flow of new participants with greater intensity than the adult population. At the same time, there is also a clear distinction between young people and adults in the phases of economic recovery, with slower and more erratic trends for young people, as shown by the fledgling post-lockdown recovery (third quarter 2020), even clearer for those from 15 to 24 years.

At the time, this document is being wrote, economies are struggling to find solutions to the devastating impact of the covid 19 pandemic, which overwhelmingly affected the youth work, expanding and aggravating previous challenges and creating new ones. They face some of the main difficulties due to preceding working conditions, while presents new channels in which the crisis hit disturbs the labour market. After a general agreement in which young unemployment rates doubles o even triples the aggregate ratios, pandemic brings alarming results that reach a 35% of unemployment rate. At the same time, the decline in the young labour participation was remarkable during the pandemic pick, in which only one between four young people decide to participate in the labour market. Despite the inactivity rate increases in the population overall, the “discouragement effect” (due to the tough conditions to find a job), disproportionally hits the young residents.

In a like manner, the hard outcomes are expressed in the recovery too. In the third quarter, as some re-strictions were abandoned, not only many young people return to the labour market, but also the unemployment rate presents a decline as job creation overtake both variables. However, new entrants exacerbate the usual challenges. At first, the hourly intensity not only could not return to previous measures, but also continue its decline (partially due to part-time scheme). Likewise, the young informality rates range almost 65% requiring an extensive review to find such ratios (post crisis period). This result is even more shocking after the non-registration dwindling in the pandemic crisis pick, evidently not due a formalization process but also

for job destruction. Moreover, it is specially amplified for young women whose unemployment rate increasing was the largest during pandemic as the informal workers were those who initially were removed from their jobs.

These job disruptions during the first impact of the pandemic have their implications on middle income, so the results must be understood wisely. The increase in real hourly labor in-come should not be assumed as a reversal of the collapse of 2018-2019. On the contrary, during the second quarter of 2020, young workers with worse working conditions (informality, temporary work, part-time, low qualifications) and therefore low incomes lost their jobs, which allows for an improvement in real hourly employment-related income because of the suppression of the lower queue in the distribution of real hourly employment-related income.

As a result, the tenuous and slow recovery in employment in the third quarter of 2020 leads to a decrease, for all individual attributes, in real hourly employment-related income, as precarious employment that had been taken out of the youth labour market begins to be recomposed. The youth employment landscape in Argentina's urban agglomerates shows the vulnerability of youth generations given their insertion into increasingly precarious jobs, with lower educational requirements and in productive activities that exhibit less stability and low working in-comes relative to the adult population.

This situation manifests itself in econometric models. In turn, labor contract relationship displays the largest explanatory coefficient for income, even above the educational level. Thus, the smaller scope of the labour formalization process significantly explained the income differential for the youth-adult dimension. Labor contract relationship is in line, on the one hand, with a marked sector insertion profile, where hiring takes place in industries that are intensive in unstable jobs. On the other hand, it does so with occupational qualification and higher performance in secondary positions for which on-the-job training is marginal.

The worst working conditions should not be associated with the characteristics of youth la-bour supply since the increased participation of young people in low-skilled tasks does not correspond to educational levels achieved by the young population, which is even above the credentials of the population average. There is also a marked overqualification in the jobs that young people have and few matches be-tween credentials (offer) and job qualifications (demand). This is also verified in the performance of more elementary tasks within the organization chart of companies, accessing positions more expendable to a greater extent than the adult population. This situation reinforces the increased labour turnover of young people due to the lower costs of direct and indirect redundancy (little experience) that favor youth layoff. It suggests a vicious cycle in which young people are inserted with an em-ployment profile that generates conditions which facilitate their exit from the labour market or periods of unemployment.

The presumption of a selection bias for the participation (or not) in the labour market by young people, makes a choice for a Heckman model, which is essential to under-stand the determinants of working income hours in the youth population. Empirical evidence was found about selection bias in gender-related youth, the presence of children at home, and the socioeconomic level of the family. Thus, for women the probability for reinforcing the labor participation force increases along with the eco-nomic level of the family and the absence of children at home. For males, however, the presence of minors increases the likelihood of entry into the labour market, taking on more productive tasks in the labour market while women's reproductive tasks developed inside the home. Therefore, it is supported that women's transitions are associated with involuntary intermittency as sensitivity to the economic cycle are confirmed.

Finally, to overcome the challenges of young people, the creation of high-quality jobs is mandatory, but specific promotion of public policies is also required to address the connection between labour insertion and education.

References

Acemoglu, D., & Angrist, J. (1999). How large are the social returns of education? Evidence from compulsory schooling laws. Cambridge: National Bureau of Economic Research. doi:10.3386/w7444

Angrist, J., & Keueger, A. (1991). Does Compulsory School Attendance Affect Schooling and Earnings? Quarterly Journal of Economics, 106(4), 979-1014.

Beccaria, L., Maurizio, R., & Vázquez, G. (2015). Recent decline in wage inequality and formalization of the labor market in Argentina. International Review of Applied Economics, 29(5), 677-700. doi:10.1080/02692171.2015.1054369

Bertranou, F., & Casanova, L. (2015). Trayectoria hacia el trabajo decente de los jóvenes en Argentina: contribuciones de las políticas públicas de educación, formación para el trabajo y protección social. Ginebra: Oficina Internacional del Trabajo.

Bratsberg, B., & Terrel, D. (1998). Experience, Tenure, and Wage Growth of Young Black and White Men. Journal of Human Resources, 658-682.

Bussolo, M., Dávalos, M., Peragine, V., & Sundaram, R. (2019). Toward a New Social Contract: Taking on Distributional Tensions in Europe and Central Asia. Washington, DC: World Bank. doi:10.1596/978-1-4648-1353-5

Comisión Económica para América Latina y el Caribe (CEPAL) / Organización Internacional del Trabajo (OIT). (2020). La dinámica laboral en una crisis de características inéditas: desafíos de política. Coyuntura Laboral en América Latina y el Caribe, Nº 23. Santiago.

De Ibarrola, M. (2016). Claroscuros en las relaciones entre la escolaridad y el trabajo. Configuraciones y límites. Revista Páginas de Educación, 9(2). doi:http://dx.doi.org/10.22235/pe.v9i2.1293

Gordon, D., Edwards, R., & Reich, J. (1986). Trabajo Segmentado, trabajadores divididos: la transformación histórica del trabajo en Estados Unidos. Madrid: Ministerio de Trabajo y Seguridad Social.

Guergoat-Larivière, M., & Lemière, S. (2014). Emploi, non emploi: une analyse femmes-hommes. Document de travail du Centre d'Études de l'Emploi, No. 176.

Guryan, J., Hurst, E., & Kearney, M. (2008). Parental education and parental time with children. Journal of Economic Perspectives, 22(3), 23-46. doi:10.1257/jep.22.3.23

Hanushek, E., & Woessmann, L. (2009). Schooling, cognitive skills, and the latin american growth puzzle., Working Paper 15066. doi:10.3386/w15066

Heckman, J. (1979). Sample selection bias as a specification error. Econometrica, 47(1), 153-161. doi:10.2307/1912352

Holzer, H., & LaLonde, R. (1998). Job changes and job stability among less-skilled young workers. Michigan State University.

Jacinto, C., Wolf, M., Bessega, C., & Longo, M. (2005). Jóvenes, precariedades y sentidos del trabajo. Nuevos escenarios en el mundo del trabajo: rupturas y continuidades. Buenos Aires: ASET.

Kim, S. (2020). Gender earnings gap among the youth in Malawi. African Development Review, 32(2), 176-187. doi:10.1111/1467-8268.12426

Light, A., & Urea, M. (1992). Panel Estimates of Male and Female Job Turnover Behavior: Can Female Nonquitters Be Identified? Journal of Labor Economics.

Marshall, A., & Groisman, F. (2013). Educación, demanda de calificaciones y salarios relativos: el caso argentino, 2004-2011. Reunión Anual de la Asociación Argentina de Economía Política. Rosario.

Maurizio, R. (2011). Trayectorias laborales de los jóvenes en Argentina: ¿Dificultades en el mercado de trabajo o carrera laboral ascendente? Santiago de Chile: CEPAL.

Morduchowicz, A. (2004). Discusiones de Economía de la Educación. Ciudad de Buenos Aires: Losada.

Organización Internacional del Trabajo. (2020). Los jóvenes y la Covid-19: efectos en los empleos, la educación, los derechos y el bienestar mental. Ginebra.

Osterman, P. (1980). Getting Started: The Youth Labor Market. The MIT Press.

Pérez, P. (2006). Empleo de jóvenes y coyuntura económica. En P. Perez, & J. Neffa, Macroeconomía, mercado de trabajo y grupos vulnerables. Desafíos para el diseño de políticas públicas. CEIL/PIETTE, CONICET.

Pérez, P., Deleo, C., & Fernández Massi, M. (2013). Desigualdades sociales en trayectorias laborales de jóvenes en la Argentina. Revista Latinoamericana de Población, 7(13), 61-89. Obtenido de http://hdl.handle.net/11336/3033

Perlbach de Maradona, I., & Calderón, M. (1998). Estimación del sesgo de selección para el mercado laboral de Mendoza. XXXIII Reunión Anual AAEP. Mendoza: AAEP.

Salvia, A., & Vera, J. (2015). Las desigualdades estructurales y el efecto de la educación sobre las oportunidades de empleo pleno. En A. Salvia, & J. Lindenboim, Hora de Balance: Proceso de acumulación, mercado de trabajo y bienestar. Argentina, 2002-2014. (p. 211-243). Buenos Aires: EUDEBA.

Topel, & Ward, M. (1992). Job mobility and the careers of young men. Quarterly Journal of Economics 197, 439-79.

Trombetta, M., Micha, A., & Pereyra, F. (2019). Determinantes del tiempo de trabajo de cuidado y brechas de género. LIV REUNIÓN ANUAL AAEP. Bahía Blanca: AEEP.

Waisgrais, S. (2005). Determinantes de la sobreeducación de los jóvenes en el mercado laboral argentino. Nuevos escenarios en el mundo del trabajo: rupturas y continuidades. Buenos Aires: ASET.

Zack, G., Favata, F., & Schteingart, D. (2020). Pobreza e indigencia en Argentina: construcción de una serie completa y metodológicamente homogénea. Sociedad y Economía (40), 69-98.

Zimmerman, S. (2018). Elite Colleges and Upward Mobility to Top Jobs and Top Incomes. American Economic Review, 109(1), 1-47. doi:10.1257/aer.20171019

Appendix

Table Nº 2. Results from Ordinary Least Squares (OLS) Regression and Heckman for men and women by age group.

Gender	Men						Women					
Age	15-24		25-30		31-65		15-24		25-30		31-65	
Variables	OLS	Heckman	OLS	Heckman	OLS	Heckman	OLS	Heckman	OLS	Heckman	OLS	Heckman
Complete high school	0.132***	0.132***	0.163***	0.157***	0.185***	0.142***	0.101***	0.0495**	0.149***	0.0578***	0.216***	0.123***
	(0.0142)	(0.0139)	(0.0120)	(0.0167)	(0.00657)	(0.0138)	(0.0214)	(0.0207)	(0.0182)	(0.0171)	(0.00848)	(0.0103)
Incomplete higher education	0.305***	0.298***	0.318***	0.321***	0.348***	0.276***	0.253***	0.163***	0.289***	0.127***	0.359***	0.211***
	(0.0180)	(0.0178)	(0.0147)	(0.0206)	(0.00923)	(0.0198)	(0.0214)	(0.0214)	(0.0190)	(0.0188)	(0.0112)	(0.0140)
Complete higher education	0.366***	0.350***	0.463***	0.432***	0.560***	0.451***	0.357***	0.238***	0.475***	0.268***	0.614***	0.398***
	(0.0388)	(0.0383)	(0.0168)	(0.0242)	(0.00820)	(0.0179)	(0.0356)	(0.0355)	(0.0200)	(0.0206)	(0.00922)	(0.0121)
Informal private-sector wage earner	-0.388***	-0.343***	-0.425***	-0.346***	-0.480***	-0.402***	-0.332***	-0.249***	-0.326***	-0.227***	-0.331***	-0.190***
	(0.0152)	(0.0151)	(0.0125)	(0.0177)	(0.00834)	(0.0174)	(0.0211)	(0.0209)	(0.0166)	(0.0164)	(0.00962)	(0.0119)
Informal public-sector wage earner	0.127***	0.129***	0.122***	0.121***	0.187***	0.191***	0.217***	0.201***	0.191***	0.197***	0.234***	0.222***
	(0.0269)	(0.0265)	(0.0163)	(0.0232)	(0.00788)	(0.0168)	(0.0360)	(0.0354)	(0.0188)	(0.0188)	(0.00886)	(0.0113)
Formal public-sector wage earner	-0.293***	-0.239***	-0.268***	-0.193***	-0.442***	-0.319***	-0.135***	-0.0452	-0.227***	-0.110***	-0.410***	-0.235***
	(0.0337)	(0.0330)	(0.0284)	(0.0386)	(0.0212)	(0.0431)	(0.0376)	(0.0364)	(0.0254)	(0.0244)	(0.0176)	(0.0208)
Self-eployed	-0.422***	-0.365***	-0.407***	-0.326***	-0.444***	-0.360***	-0.486***	-0.403***	-0.502***	-0.408***	-0.516***	-0.426***
	(0.0199)	(0.0197)	(0.0149)	(0.0208)	(0.00706)	(0.0149)	(0.0300)	(0.0292)	(0.0203)	(0.0198)	(0.00973)	(0.0121)
Employer	-0.145***	-0.134**	-0.0691**	-0.0734*	-0.0891***	-0.0948***	-0.266***	-0.288***	0.0488	0.0331	-0.0250	-0.0762***
	(0.0561)	(0.0551)	(0.0303)	(0.0434)	(0.0115)	(0.0245)	(0.0849)	(0.0829)	(0.0485)	(0.0484)	(0.0188)	(0.0243)
Year 2006	0.194***	0.203***	0.207***	0.214***	0.190***	0.198***	0.191***	0.196***	0.131***	0.134***	0.176***	0.190***
	(0.0223)	(0.0218)	(0.0191)	(0.0268)	(0.0107)	(0.0224)	(0.0288)	(0.0278)	(0.0236)	(0.0227)	(0.0126)	(0.0155)
Year 2009	0.288***	0.304***	0.253***	0.278***	0.217***	0.234***	0.305***	0.319***	0.198***	0.221***	0.222***	0.249***
	(0.0214)	(0.0210)	(0.0182)	(0.0255)	(0.0101)	(0.0212)	(0.0284)	(0.0273)	(0.0226)	(0.0217)	(0.0120)	(0.0147)

Year 2012	0.269***	0.272***	0.216***	0.244***	0.139***	0.161***	0.258***	0.279***	0.162***	0.184***	0.144***	0.184***
	(0.0216)	(0.0211)	(0.0186)	(0.0261)	(0.0102)	(0.0213)	(0.0285)	(0.0274)	(0.0229)	(0.0220)	(0.0120)	(0.0148)
Year 2015	0.319***	0.328***	0.250***	0.273***	0.184***	0.205***	0.295***	0.310***	0.203***	0.221***	0.191***	0.223***
	(0.0218)	(0.0214)	(0.0186)	(0.0260)	(0.00998)	(0.0209)	(0.0298)	(0.0287)	(0.0234)	(0.0225)	(0.0119)	(0.0146)
Year 2019	0.181***	0.188***	0.140***	0.173***	0.0864***	0.103***	0.214***	0.226***	0.0951***	0.117***	0.0821***	0.110***
	(0.0236)	(0.0231)	(0.0195)	(0.0272)	(0.0105)	(0.0219)	(0.0315)	(0.0303)	(0.0243)	(0.0233)	(0.0122)	(0.0150)
II quarter 2020	0.0733**	0.0720**	0.0871***	0.0937***	0.0500***	0.0543*	0.159***	0.155***	0.0208	0.0315	0.0447***	0.0647***
	(0.0333)	(0.0325)	(0.0249)	(0.0348)	(0.0133)	(0.0279)	(0.0479)	(0.0462)	(0.0326)	(0.0313)	(0.0155)	(0.0192)
III quarter 2020	0.0420	0.0198	0.0264	0.00582	0.0221*	-0.00525	0.0984**	0.0509	-0.0799***	-0.116***	0.0158	-0.0181
	(0.0280)	(0.0274)	(0.0224)	(0.0317)	(0.0119)	(0.0252)	(0.0391)	(0.0379)	(0.0283)	(0.0275)	(0.0140)	(0.0174)
Quintile 2		0.343***		0.537***		0.444***		0.322***		0.355***		0.360***
		(0.0202)		(0.0375)		(0.0192)		(0.0224)		(0.0278)		(0.0137)
Quintile 3		0.481***		0.815***		0.613***		0.495***		0.664***		0.588***
		(0.0225)		(0.0413)		(0.0204)		(0.0249)		(0.0311)		(0.0146)
Quintile 4		0.590***		1.077***		0.854***		0.687***		1.099***		0.892***
		(0.0245)		(0.0428)		(0.0214)		(0.0271)		(0.0338)		(0.0152)
Quintile 5		0.772***		1.560***		1.122***		0.852***		1.506***		1.195***
		(0.0298)		(0.0489)		(0.0229)		(0.0330)		(0.0407)		(0.0166)
Childs (below 3 years)		0.722***		1.288***		0.880***		0.207***		-0.193***		0.254***
		(0.0216)		(0.0387)		(0.0207)		(0.0218)		(0.0265)		(0.0140)
Children between 4 and 14		-0.0290		0.777***		0.801***		-0.0422**		0.105***		0.387***
		(0.0177)		(0.0369)		(0.0167)		(0.0207)		(0.0282)		(0.0112)
λ		-0.547***		-0.926***		-1.519***		-0.861***		-0.645***		-1.155***
		(0.0282)		(0.0434)		(0.0474)		(0.0479)		(0.0265)		(0.0240)
Constant heckman		-0.889***		-0.139***		0.186***	-4.344***	-1.287***		-0.399***		-0.566***
		(0.0180)		(0.113)		(0.0366)	(0.0967)	(0.0206)		(0.102)		(0.0337)
Constant	-4.431***	-3.768***	-4.055***	-3.732***	-3.670***	-3.545***	-4.344***	-3.074***	-4.360***	-3.943***	-3.865***	-3.134***
	(0.0664)	(0.0731)	(0.0805)	(0.0329)	(0.0171)	(0.0161)	(0.0967)	(0.116)	(0.105)	(0.0282)	(0.0232)	(0.0121)
Observations	10,475	31,333	13,111	15,632	54,443	62,99	5,924	32,11	9,122	16,616	41,558	74,418
R-squared	0.264		0.317		0.323		0.276		0.341		0.415	

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

*regional, age and sectorial controls are included