ORIGINAL ARTICLE

Ethnical incomes' gap in Spain. The case of Roma

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Abstract

Background: Discrimination against Roma individuals is a prevalent issue across Europe, presenting significant socio-economic challenges. Spain, holding the highest concentration of Roma in Western Europe, serves as a focal point for investigating such disparities.

Objectives: This study aims to explore the wage gap between the Roma and non-Roma populations in Spain, assessing the extent to which this disparity may be attributed to potential discriminatory practices. The objective is to provide a detailed analysis of wage inequalities to inform more effective anti-discrimination policies.

Methods: The analysis utilizes data from the 2018 Survey on Social Integration and Social Needs, employing statistical and econometric techniques. This approach helps in quantifying the wage gap and in examining the factors contributing to the observed disparities between the two groups.

Results: The findings indicate a substantial wage gap between the Roma and non-Roma populations. Approximately 43.5 percent of the wage difference remains unexplained by the standard variables included in the econometric model, suggesting that factors beyond educational and professional qualifications might contribute to these inequalities.

Conclusion: The significant unexplained portion of the wage gap likely points to the existence of ethnic discrimination by employers. This study underscores the urgent need for nuanced, targeted anti-discrimination interventions specifically designed for the Roma community in Spain. The results advocate for policy adjustments that address these disparities at their core, ensuring equity and social integration.

KEYWORDS
discrimination, incomes' gap, labor market, Roma, social integration

INTRODUCTION

According to the Eurobarometer (2019), discrimination against Roma is considered the most widespread discrimination (61 percent on average, 65 percent in Spain), and this perception holds equally among Roma and non-Roma people. However, only a minority recognizes that they would feel discomfort sharing social situations with somebody from this group—and the attitudes toward Roma seem to be more favorable in Spain than in other countries. In any case, most European citizens think that efforts made to integrate the Roma population are not fully effective, and the need to strengthen the fight against discrimination and to reinforce progress achieved in the inclusion of the Roma minorities has been underlined in a recent European Parliament resolution.[1] This article aims to explore the underlying dynamics of such discrimination in the labor market, examining how systemic and employer-level biases contribute to ongoing wage disparities.

Although subjective feelings of discrimination can be framed by psychological factors and cultural values, they are often linked to real disadvantages in various fields. In the case of Roma, evidence shows that they experience extremely high levels of poverty, residential segregation, and social exclusion, have poorer health and lower education levels, and face greater difficulties when entering the labor market, compared to non-Roma people (Lecerf 2022). Urbiola et al. (2023) have shown the effects of social class, ethnicity, and their interaction on prejudice and discrimination toward Roma (Cortés and End 2019).

At the European level, the new E.U. Roma Strategic Framework, issued in October 2020, sets out a three-pillar approach that goes beyond socioeconomic inclusion to emphasize the increasing role played by the promotion of equality and participation. The final goal is to give all Roma "the opportunity to develop their capacities and potentials to become involved in political, social, economic and cultural life" (Ministry of Social Rights and 2030 Agenda 2021, p. 4). To that end, the fight against discrimination on ethnic grounds is now recognized as essential for the Roma to be able to develop their lives in equal conditions and opportunities as the rest of the population (EU-MIDIS 2017).

Following this approach, the Spanish Government launched in 2021 the *National Strategy for Roma Equality, Inclusion and Participation 2021–2030* (Ministry of Social Rights and 2030 Agenda 2021). In the social inclusion pillar, the plan sets out five strategic lines, focusing on education, employment, healthcare, housing, and poverty and social exclusion. Among other objectives, the plan stresses the need to guarantee access to better quality jobs for all Roma adults as a key element to promote social inclusion.

Regarding employment indicators, progress has been made in some areas, and adults from Roma communities have now higher participation rates in regular jobs. Nevertheless, challenges remain in reducing high unemployment and underemployment rates, especially among women. Furthermore, Roma continues to be overrepresented in low-paid poor-quality jobs, and employment is one of the four dimensions with more cases of discrimination reported every year, according to the data collected by the *Secretariado Gitano* Foundation (FSG, thereafter). In addition, reports on discrimination issued in 2005, 2011, and 2020 show that the percentage of the Roma population saying that they have felt discriminated against in areas related to work has remained steady at around 45 percent (FSG 2020, p. 43).

In this context, the objective of this article is to estimate the ethnical income gap between Roma and non-Roma populations in Spain. Particularly, we analyze income differences between Roma and non-Roma workers using a unique source of microdata allowing ethnical identification. Afterward, we split these differences into an explained and an unexplained component, potentially reflecting the impact of discrimination.

To our knowledge, it is the first article addressing this relevant topic for the Spanish case. Improving our knowledge of the income differences between Roma and non-Roma workers is especially important in Spain, one of the E.U. member states with the highest percentage of the Roma population. Our results show that a significant part of the differences in mean wages between Roma and non-Roma workers cannot be explained by objective characteristics of employees or firms, such as the level of education

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[1] European Parliament resolution of February 12, 2019, on the need for a strengthened post-2020 Strategic E.U. Framework for National Roma Inclusion Strategies, 2019/2509(RSP).

or the activity sector. The main policy implication is that a successful inclusion strategy should not only be addressed to improve human capital endowments of Roma adults but also to fight more effectively discriminatory practices of non-Roma employers.

The article is structured in four sections, apart from this introduction. First, the general background is discussed, and some basic facts are presented. Second, we describe our data and methodology, explaining the empirical strategy chosen. Then we present our results and discuss them briefly. Finally, we summarize the main findings of the article and suggest some further research.

BACKGROUND

It has been traditionally difficult to analyze the social and economic situation of Roma people, both in Spain and worldwide, since there are no official statistics disaggregated by ethnicity. Basic surveys such as the Labour Force Survey, the Wage Structure Survey, or the European Union Statistics on Income and Living Conditions do not distinguish individuals according to their ethnical status, in contrast to what is normal practice in, for example, the United States. This *ethnicity-blindness* has hindered the development of research on ethnic disparities in European countries, including income inequalities between Roma and non-Roma families. Thus, what we know is mainly based on estimations from a variety of sources and ad hoc studies, some of them conducted at the local level.[2]

According to nearly all estimates, there are between 10 and 12 million Roma living in Europe, most of them in central and eastern European countries. In Western countries, Romani minorities are especially numerous in Italy, Spain, France, and the United Kingdom. In the case of Spain, most estimates calculate that there are between 600,000 and 800,000 Roma, around 1.5 percent of the total population, although some studies suggest higher (Laparra 2014) and other lower figures (Hernández-Pedreño, García-Luque, and Gehring 2019), depending on the use of heteroskedasticity or other auto-identification strategies.

The various reports published in the last few years show some distinctive features of the Roma population living in Spain.

First, they have a young population, with a higher proportion of people under 45 years and a lower proportion of people above 65 years. Additionally, they live in larger and frequently multifamily households. Also, there is a wide geographical heterogeneity, with more than one-third of Spanish Roma living in Andalusia. The Autonomous Community of Valencia, Catalonia, and the Community of Madrid host the second, third, and fourth greatest Roma populations, respectively (Ministerio de Sanidad, Servicios Sociales e Igualdad 2016).

Second, Roma families live mainly in normalized housing, although 8.63 percent still lived in substandard housing and 3 percent lived in segregated settlements in 2015, according to the last Roma and Housing Map-Study (Ministerio de Sanidad, Servicios Sociales e Igualdad 2016, pp. 135–140). It is important to highlight that the residential inclusion of the Spanish Roma population has improved in the last three decades: from 31.4 percent of Roma living in substandard housing in 1991 to 11.66 percent in 2007 and 8.63 percent in 2015.

Third, they still have lower levels of education and poorer health than the non-Roma population, although some progress has been made in terms of school attendance, early school leaving, smoking reduction, and access to preventive healthcare. Regarding education, the new National Strategy for the period 2021–2030 stresses the need to further increase early childhood education, reduce school segregation and discrimination in the educational system, decrease the school dropout rate, and increase the number of Roma students in post-compulsory education. As noted by Carrasco and Poblet (2019, p. 13), low levels of educational achievement persist among the Roma population surveyed, and there is still a clear gender gap, although Spain compares well in this area with other E.U. member states. The COVID-19 (SARS-CoV-) pandemic has also shown the importance of reducing the digital divide among Roma pupils (Arza et al. 2020).

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[2] A recent review of Spanish studies on Roma can be viewed in Haz-Gómez et al. (2019), see also Gehrig (2019).

In the case of health, Spanish Roma are almost fully covered by the National Health System, and their use of health services is normalized, but there is still a life expectancy gap of 10 years, compared to the non-Roma population. Although this gap is similar to that identified between high- and low-income groups in the whole country, there are some areas of special concern among the Roma population, such as dental health, obesity prevention, or gynaecological visits among women (Carrasco and Poblet 2019, p. 18).

Fourth, in the employment field, Roma adults have traditionally been engaged in activities lying outside or on the margins of the formal labor market, such as street trading (Rodríguez Cabrero et al. 2009), even though the rate of salaried workers has increased in recent times. According to the most comprehensive report, conducted by the ISEAK Foundation and commissioned by FSG (FSG and ISEAK 2019), most of the Roma population suffers from strong inequality and lack of protection in access to regular employment, and large gaps persist in a few key areas, especially among women. This makes the Roma population reach an unemployment rate of 52 percent, 3.6 times the value estimated for the general population (14.5 percent). The low rate of salaried workers among the Roma is also striking, it reaches around 53 percent, compared to the whole population (84 percent), and the high rate of temporary workers (73 percent, compared to 27 percent among the general population). As several authors have noted, self-employment is to some extent used as an anti-discrimination strategy by the Roma and other marginalized groups, given the barriers they have in accessing labor markets (Gehrig 2019).

At the same time, self-employment among Roma workers also rises fast in response to unemployment shocks. In Spain, employment rates have been highly sensitive to adverse macroeconomic conditions among Roma workers, who have suffered major labor market setbacks in the 2008 recession (FSG 2012). Currently, there is evidence that the COVID-19 restrictions have hit Roma harder since many of their economic activities are considered non-essential and remained closed during the pandemic. At the same time, they were less covered by special social protection mechanisms launched in 2020 to alleviate the socioeconomic impact of the pandemic (Arza et al. 2020).

Fifth and finally, poverty and social exclusion rates are much higher among the Roma than for the rest of the population. The main results on this issue come from the different FOESSA reports, based on microdata from the Social Integration and Social Needs Surveys.[3] According to these data, around 38 percent of Roma individuals suffered from severe poverty in 2018, compared to 4.8 percent for the non-Roma population, and 51.4 percent experienced severe social exclusion, compared to 8.3 percent in the whole population. In another recent study, the FSG and ISEAK reported estimates of an at-risk-of-poverty or exclusion indicator of 91.9 percent for Roma people, more than three times the national average (29.3 percent).

To provide context, it is important to compare these findings with the situation of Roma populations in other European countries such as Hungary and Romania, where similar disparities are observed but are influenced by different historical and socio-political factors. Such comparisons help in understanding whether the patterns observed in Spain are part of wider European trends or specific to the national context (Crowe 2016).

To sum up, there is evidence that the Roma minority, despite the progress made in specific areas, still has a disadvantaged socioeconomic position in Spain, facing a great risk of being excluded from society. Additionally, there is evidence of stigmatization and discrimination practices in various fields, including hate speech on social media and online platforms. The last report on discrimination issued by FSG shows that 53 percent of Roma men and 42 percent of Roma women have felt discriminated at work, especially at job interviews and in relationships with their managers (FSG 2020, p. 43).[4] As suggested by Hellgren and Gabrielli (2021), the "double stigmatization" experienced by many Roma reinforces their precariousness and poses barriers to achieving equal opportunities and social inclusion. While the findings of this study are specific to the Spanish context, they may have limited generalizability to other European countries or Roma populations. Future research could explore the wage differences between Roma and non-Roma in

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[3] See, for example, Hernández-Pedreño, García-Luque and Gehrig (2019), Damonti and Arza (2014), Laparra and García (2011), or Laparra (2008).

[4] These percentages are like those found in FSG 2005 and 2011 reports, and also to those based on the various FOESSA and CIS reports, see also Fernández, Valbuena, and Caro (2019), who review existing data to show how the Roma community are still rejected or mistrusted at a fairly large scale.

other national contexts, drawing from historical and geographical analyses (Crowe 2007; Pinto et al. 2023) to better understand the specific dynamics and challenges faced by Roma communities in different regions.

METHODOLOGY

Data

The primary data source used in this article is the Survey on Social Integration and Social Needs 2018 (Encuesta Sobre Integración Social y Necesidades Sociales). This database carried out by the Foessa Foundation (Foundation for Fostering Social Studies and Applied Sociology) provides data for almost 30,000 individuals. Of all the observations, in our case, those that are of interest for the study will be those that answer a question related to the object of study, income. After this screening, we find a total of 9493 individuals. One advantage of the data is that many variables of interest, which are related to personal, professional, and social characteristics, are directly provided.

The key feature of this dataset, compared to others such as the European Union Survey of Income and Living Conditions, is the observation of individuals' ethnical belonging. Additionally, there is information about personal characteristics including sex, age, and marital status. Similarly, details associated with individuals' education, employment status, and social needs are also provided. For instance, it includes region, employment status, occupation, and income. Besides, some important variables regarding family features such as the number of family units or household size are also available. Another interesting distinctive feature of this survey is the overrepresentation of the low-income population in the sample, which provides greater representativeness of groups traditionally difficult to reach in household surveys.

The choice of variables for analysis was based on their theoretical relevance and potential impact on income disparities between Roma and non-Roma populations. Factors such as education level, employment status, occupation, and sector of activity were included as they have been consistently identified as significant determinants of wage differences in previous studies (Pinto et al. 2023). While the dataset offers a unique lens to view the income disparities based on ethnic identification, its overrepresentation of low-income groups may skew broader generalizations. Future studies could benefit from incorporating more balanced samples or using longitudinal data to track changes over time and reduce potential biases.

Empirical strategy

The empirical strategy followed in this study is based on the Oaxaca–Blinder (1973) decomposition model. This is possible because the variable that could determine the existence of discrimination, belonging to the Spanish Roma group, is random. Likewise, we have many control variables that we will explore in the following descriptive section.

This model assumes that the differences in income can be neutrally decomposed into explained and unexplained components. However, it is crucial to acknowledge that the "unexplained" component, often attributed to discrimination, may also encapsulate unobserved variables such as personal networks or subtle forms of social capital that are not easily quantifiable. According to the econometric methodology, the income from labor activity has been transformed into logarithmic terms to improve the interpretation of the coefficients. The estimated model would imply the following sequence of equations (Carrieri and Jones 2017).

a. First, we define and estimate the income regressions for each of the groups. As we can see, wages are expressed in logarithmic terms. This is intended to facilitate the future interpretation of the results:

$$\ln\left(income_{non-gypsie_i}\right) = \beta_{non-gypsie}X_{non-gypsie_i} + \varepsilon_{non-gypsie_i}, \tag{1}$$

$$\ln\left(income_{gypsie_i}\right) = \beta_{gypsie}X_{gypsie_i} + \varepsilon_{gypsie_i}. \tag{2}$$

b. Second, the decomposition of the difference with respect to income is estimated:

$$\begin{aligned}
mean\left(\ln\left(income_{non-gypsies}\right)\right) - mean\left(\ln\left(income_{gypsies}\right)\right) == \beta_{non-gypsies} \\
\left(mean\left(X_{non-gypsies}\right) - mean\left(X_{gypsies}\right)\right) + mean\left(X_{gypsies}\right)\left(\beta_{non-gypsies} - \beta_{gypsies}\right).
\end{aligned} \tag{3}$$

Therefore, Equations (1) and (2) will allow us to calculate Equation (3), where we will be able to differentiate on the right side the explained and unexplained parts of the income difference between gypsies and non-gypsies. Thus, mean $(\beta_{gypsies})(\beta_{non-gypsies} - \beta_{gypsies})$ will represent the part corresponding to discrimination, as we will study in the following section.

This decomposition allows us to parse out the effect of various observed characteristics like education and sector of employment, providing insights into the proportion of wage differences that can be attributed to discrimination versus other factors. Detailed criteria for variable selection and their significance in explaining wage disparities are rigorously defined to ensure robust analysis. To determine statistically significant differences between groups, we employed standard t-tests techniques. It is important to note that the Oaxaca–Blinder decomposition method used in this study relies on certain assumptions, such as the absence of omitted variable bias and the correct specification of the underlying wage equations.

RESULTS

Sample characteristics

We will first conduct a preliminary analysis of the descriptive statistics of the database. To this end, we have carried out a comparison of the main variables that we will subsequently use in the empirical analysis. Our data allow us to describe the differences that exist between the groups that are the object of our study, Spanish Roma and non-Roma workers. Next, we will comment on those characteristics whose differences are significant on average between the two groups (see Table 1).

First, we can see a considerable and significant difference in terms of income between Roma and non-Roma. This difference is 6064.45 euros per year and could be explained both by differences in objective variables such as sex, activity sector, hours worked, or educational level or by discrimination based on ethnicity.

Second, concerning some socio-demographic characteristics, we can also point out the existence of significant differences between the groups. Regarding sex, only 37.1 percent of the Roma working population in the sample are women, while for non-Roma the presence of women exceeds 46 percent. There is also a significant difference in the mean age of Roma, compared to non-Roma, the mean age among Roma is 6 years lower.

Table 1 below presents the disaggregated income data, highlighting significant statistical distinctions between the groups, with all values clearly defined for clarity. Each variable is accompanied by a confidence interval and significance values to offer a comprehensive understanding of the data variability and precision.

But, if there are notable differences, they have to do with the family structure of both groups. This is reflected in the data contained in Table 1, where the percentage of households with more than one family unit in the case of Roma exceeds 12 percent, compared to the scarce 4.4 percent of non-Roma families. In terms of household size, Roma households with more than three members exceed 60 percent, compared to non-Roma households with around 44 percent.

Concerning this, we can also highlight some relevant differences. For example, the percentage of individuals with a legal contract is 87.6 percent in the case of the non-Roma population, to 60.6 percent of the Roma population. The percentage of Roma individuals working without regulated contracts is also

TABLE 1 Descriptive statistics.

	Mean			
	Non-Roma	Roma	Difference	Significance
Employment income	13,973.02	7908.38	6064.65	***
	(8180.85)	(7257.76)	(696.85)	
Female	46.4	37.1	9.3	*
	(0.499)	(0.485)	(0.047)	
Age	42.0	36.3	5.8	***
	(11.51)	(13.55)	(1.29)	
More than one family core	4.4	12.6	(−8.1)	***
	(0.206)	(0.333)	(0.032)	
Type of employment relationship				
Legal contract	87.6	60.6	27.0	***
	(0.329)	(0.491)	(0.047)	
Without contract	3.6	31.1	(−27.5)	***
	(0.186)	(0.465)	(0.044)	
Legal self-employed	8.8	8.3	0.5	–
	(0.283)	(0.276)	(0.027)	
Household size up to three members (yes = 1)	61.6	44.0	17.6	***
	(0.486)	(0.498)	(0.048)	
Marital status				
Single	28.5	26.4	2.1	–
	(0.452)	(0.443)	(0.042)	
Legal marriage, cohabitation, and other social rites	63.6	66.0	(−2.3)	–
	(0.481)	(0.476)	(0.046)	
Widowed	1.4	0.9	0.5	–
	(0.117)	(0.093)	(0.009)	
Divorced and separated	6.5	6.8	(−0.3)	–
	(0.247)	(0.254)	(0.024)	
Education				
Illiterate and no studies	4.2	20.9	(−16.6)	***
	(0.201)	(0.408)	(0.039)	
Compulsory education (primary and secondary)	5.6	26.5	(−20.9)	***
	(0.229)	(0.443)	(0.042)	
Post-compulsory secondary education and vocational training	52.1	47.3	4.8	–
	(0.499)	(0.502)	(0.048)	
University studies	38.1	5.3	32.8	***
	(0.486)	(0.225)	(0.022)	
Sector				
Primary sector	5.8	6.2	0.5	–
	(0.233)	(0.243)	(0.024)	

(Continues)

TABLE 1 (Continued)

| | Mean | | | |
	Non-Roma	Roma	Difference	Significance
Secondary sector	10.9	10.6	0.2	–
	(0.311)	(0.309)	(0.030)	
Construction	6.9	2.9	4.0	***
	(0.254)	(0.169)	(0.017)	
Commerce	12.1	26.0	(−14.0)	***
	(0.326)	(0.439)	(0.043)	
Other services	64.4	54.6	9.8	**
	(0.479)	(0.500)	(0.049)	
Weekly working hours	35.6	30.6	5.0	***
	(12.37)	(14.99)	(1.49)	

Note: *** significant at 1 percent level; * significant at 10 percent level.
Source: Authors from Survey on Social Integration and Social Needs (FOESSA 2018).

remarkably high, around 31 percent. This group probably also includes several self-employed working without being enrolled in the special regime for self-employed workers in the Social Security system.

In terms of the education variable, the Roma population differs greatly from the rest of the population since the number of individuals without primary education amounts to 20 percent as opposed to the scarce 4 percent of the population of the non-Roma group. There is also a significant difference between those individuals who reach university studies between the Roma and non-Roma populations, with a gap of 32 percentage points.

Finally, according to the basic classification of the economy in sectors of activity, there are significant differences in the occupational structure including the preponderance of the Roma over the non-Roma in the commercial sector. We must not forget that to make the model used more robust, we have incorporated region variables, which allow us to control for the differences in the Roma population between the different Spanish Autonomous Communities. This is important because, according to the conversations held with some representatives of the gipsy community, there are important cultural differences from the geographical point of view.

Main results

Once the descriptive analysis was conducted, we now proceed to analyze the results of the Oaxaca–Blinder model. As Table 2 shows, the results are shown around four different parts. First, group averages are observed for the income variable. Second, the difference between these income averages is observed. Third, the table shows the part of the former difference that is explained by the variables introduced in the model and finally the part of the difference that is not determined by these variables, potentially reflecting discrimination.

Thus, we can affirm that the difference in means denoting the model between group I (non-Gypsies) and group II (Gypsies) is 20.8 percent. On the other hand, we can affirm that the part of this difference that, in a significant way, would be explained by the control variables amounts to 56 percent (education, sector of activity, marital status, sex, or age).

The findings suggest the need for targeted policies that address not only the gaps in education and employment but also specific discriminatory practices that perpetuate income disparities. Comparisons with similar studies across Europe suggest that while some factors are unique to Spain, others reflect

TABLE 2 Oaxaca–Blinder decomposition main results.

	Coefficient	
Group I—Non Gipsy	9.321	***
	(0.009)	
Group II—Gipsy	8.204	***
	(0.155)	
Difference	1.208	***
	(0.155)	
Explained	0.592	***
	(0.085)	
Unexplained	0.436	**
	(0.116)	
Number of observations		9493
Number of observations in group 1		9394
Number of observations in group 2		99

Note: Robust standard errors in parentheses.
*** significant at 1 percent level; ** significant at 5 percent level; * significant at 10 percent level.
Source: Authors from Survey on Social Integration and Social Needs (FOESSA 2018).

broader patterns of discrimination against Roma populations. Finally, and being the essential objective of the article, since it responds to the main hypothesis, we find the part of the unexplained difference that would correspond to discrimination. Thus, the discrimination suffered by the Roma ethnic group in Spain, having previously been controlled by the relevant control variables, amounts to 43.5 percent.

Table 3 shows coefficients for the explained part of the income differences, allowing us to extract more conclusions. In this way, to reduce (half of) the difference in income between gipsies and non-gipsies, it will be necessary to fill the gaps that exist in terms of the explanatory variables of the model. For example, if a Roma wants to eliminate the income gap concerning the general population, she must invest more time in work (working hours) and be trained at levels higher than secondary and university education.

The findings suggest the need for targeted policies that address not only the gaps in education and employment but also specific discriminatory practices that perpetuate income disparities. Comparisons with similar studies across Europe suggest that while some factors are unique to Spain, others reflect broader patterns of discrimination against Roma populations. These results underscore the critical need for policy interventions that not only focus on enhancing educational opportunities and employment conditions for the Roma but also rigorously tackle the subtler forms of discrimination that persist even after accounting for observable characteristics. Such nuanced policy measures should be informed by ongoing research and adaptive to the changing dynamics of the labor market.

CONCLUSION AND DISCUSSION

Furthermore, the discussion on the implications of the findings could be expanded to delve deeper into potential policy interventions and alignment with existing literature on labor discrimination and Roma inclusion strategies. How can these results inform the design and implementation of the new E.U. Roma Strategic Framework and the Spanish National Strategy for Roma Equality, Inclusion and Participation 2021–2030? What specific measures could be taken to address the observed wage disparities and combat discriminatory practices in the labor market?

TABLE 3   Coefficients for the explained part of Oaxaca–Blinder decomposition.

Variables	Coefficient (standard error)
Female	−0.010
	(0.007)
Age	0.193***
	(0.045)
Age^2	−0.126***
	(0.034)
More than one family core	0.021***
	(0.007)
W/O contract	0.094***
	(0.021)
Legal self-employed	−0.001
	(0.001)
Household size up to three members (yes = 1)	0.005
	(0.003)
Legal marriage, cohabitation, and other social rites	0.000
	(0.006)
Widowed	0.000
	(0.000)
Divorced and separated	−0.000
	(0.000)
Compulsory education (primary and secondary)	−0.002
	(0.005)
Post-compulsory secondary education and vocational training	0.015**
	(0.006)
University studies	0.087***
	(0.011)
Primary sector	0.0144*
	(0.008)
Construction	−0.000
	(0.000)
Commerce	0.006
	(0.005)
Other services	−0.003
	(0.003)
Weekly working hours	0.337***
	(0.063)
Observations	9,493

Note: Robust standard errors in parentheses.
*** significant at 1 percent level; ** significant at 5 percent level; * significant at 10 percent level.

The main objective of this article was to answer the question of the extent of potential discrimination in terms of income between Roma and non-Roma in Spain, using 2018 data. The empirical strategy followed has shown that there are significant differences between both groups in wages and other labor incomes. Several conclusions can be drawn from our analysis, three of which can be highlighted here. (1) The Roma population is particularly vulnerable in terms of education and employment, with socio-demographic characteristics that are different from the rest of the population. (2) There are significant wage differences between the Roma workers and the rest of workers. (3) In the observed labor income difference between the two groups, there is an important part, 43.5 percent, which cannot be explained by the control variables included in the model, potentially reflecting discrimination.

The main objective of this study was to examine the extent of potential income discrimination between Roma and non-Roma populations in Spain, using data from 2018. The empirical strategy employed revealed significant differences in wages and labor income between the two groups. Several key conclusions can be drawn:

(1) The Roma population is particularly vulnerable in terms of education and employment, exhibiting socio-demographic characteristics distinct from the rest of the population. This finding aligns with previous studies highlighting the structural disparities and social exclusion faced by Roma communities across Europe (Cukrowska and Kóczé 2013; Lecerf 2022).

(2) Significant wage disparities exist between Roma workers and non-Roma workers. This result is consistent with existing literature on the economic costs of Roma exclusion (De Laat 2010) and the barriers they face in accessing quality employment opportunities (O'Higgins 2010; Bhaumik et al. 2006).

(3) An important part of the observed labor income gap between the two groups, 43.5 percent, cannot be explained by the control variables included in the model, potentially reflecting discrimination. This unexplained gap is a crucial finding, as it suggests the presence of discriminatory practices by employers based on ethnicity, a phenomenon documented in previous research on Roma employment (Kertesi and Kézdi 2011a, 2011b, 2006).

Based on our findings, we recommend the development of targeted employment programs that are sensitive to ethnic disparities and designed to reduce entry barriers for Roma in higher-paying sectors. Additionally, educational programs should be specifically tailored to bridge not only the educational gaps but also culturally integrate Roma children and youths into mainstream educational systems without segregation. These results confirm the important role of discriminatory behavior toward Roma in the labor market. Therefore, it is not only that low-class (and, therefore, low-income) Roma is especially affected by prejudices and stereotypes as, for example, Urbiola et al. (2023). Discrimination in the labor market is also a driver of lower wages for Roma and, therefore, a way to suffer more prejudices, creating potentially a spiral of low remuneration and social exclusion. Policies to support Roma against prejudices are needed but also to eliminate the link of these prejudices with discrimination in the labor market.

While this study provides foundational insights into the wage disparities between Roma and non-Roma in Spain, it also opens avenues for further research. Future studies should explore the impact of intersectional identities, such as gender and age within the Roma community, on income disparities. Additionally, longitudinal studies could provide a dynamic view of how these disparities evolve in response to policy changes and economic shifts.

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