

Working Paper

Relational Capabilities and Subjective Well-Being: Influence of Exclusion and Ethnic Polarization

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Relational Capabilities and Subjective Well-Being: Influence of Exclusion and Ethnic Polarization

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Abstract

This paper presents novel approach about ethnic polarization in a country and extends its relevance beyond social conflict and civil wars to subjective well-being (SWB) and relational capabilities construct.

We test the hypothesis whether the individual sense of exclusion (disenfranchisement and discrimination) as a result of lack of social cohesion is a close correlate of how polarized a country is rather than of how fractionalized the same country is. Our results point to ethnic divisions influencing exclusion - polarization to a larger extent than fractionalization. Our results also suggest that exclusion is a significant determinant of the individual's SWB; and also how engaged the individual is in the public sphere of their existence as measured by the civic commitment dimension of Relational Capabilities Index (RCI).

We use Latinobarómetro for the years 2001 and 2009 - a representative opinions survey of some 18 Latin American countries.¹

Keywords: Relational capabilities, ethnic polarization, fractionalization, life satisfaction, happiness, minorities, exclusion, social capital, inequality

JEL classification: D63, I31, O15

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1 Introduction

Social cohesion is desirable for normative reasons. Social cohesion also has merits that can be felt in all spheres of a society - social, cultural, political, and it is also definitely economically prudent as many studies have tried to demonstrate. The literature on social cohesion has taken several forms implicitly and directly over the decades, albeit by specific to different domains of knowledge in all of the social sciences.

Social cohesion is a recurrent theme in the social capital literature with cohesion as a key aspect. Putnam et al. (1993) notes that social cohesion, political harmony and good governance as an implicit precondition to the existence of a thriving civic community and people's engagement in associational activities. Olson (1982) in his seminal work points out that the groups of people in a society requires cohesion to promote growth. There is also a further classification by Putnam and Goss (2002) of social cohesion as bonding networks, "connecting people who are like one another in important respect and bridging networks ('connecting people who are unlike one another'); and how these facilitate formal and informal groups creation. This in turn translate to the quality of institutions that determine economic growth (Knack and Keefer (1997), Acemoglu et al. (2005), Algan and Cahuc (2014), Easterly (2007), Alesina et al. (2003), Rothstein and Stolle (2008) . Yet, there is no clear consensus in the literature of what social cohesion encompasses. Hence, we proceed to focus on the *inverse* of social cohesion - social exclusion - which has been rather explicitly studied as opposed to social cohesion.

Exclusion is a construct that we posit as arising from lack of social cohesion. Exclusion could have important implications on social inequalities. There is a vast body of literature studying the effects of migrants on the host economies on economic, fiscal and social consequences - of sending and receiving economies; and question of immigration has always been a debate in the view of political economy.² On the other hand, the effect of immigration on home country and their incentives to migrate have also been studied in the development literature of migrants' remittances and the "brain drain" effects on home countries - Azam and Gubert (2006), Chami et al. (2003), Bhagwati and Hamada (1974) and Beine et al. (2008). More recently, there are studies like Nikolova and Graham (2015) and Akay et al. (2014) focused on the well-being and quality of life of natives *and* migrants as an event of immigration. Polgreen and Simpson (2010), among many others, suggest that migration is associated with unhappiness. This hints

² Refer to Haas (2010) for a historical perceptive political economy perspective of migration.

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at exclusion of the sort associated with lack of freedom and opportunities (we shall discuss this further in the results section of the related evidence found in our dataset).

Another manifestation of exclusion is found in the literature on social inequalities and especially horizontal inequalities³ which broaden the scope from class divisions to include cleavages along the lines of race and ethnicity. This is also covered in the cultural-structuralist approach of systematic exclusion as presented in Bourdieu and Passeron (1990).

Building upon the pioneer work of Lenski (1966), more recently Economics has studied group-based inequalities. Both in Sociology and Economics, primary focus has been the study of disadvantaged groups - race, gender, ethnic minorities, indigenous groups etc. There is a range of experimental evidence (Hoff and Pandey (2004) and Bertrand and Mullainathan (2003)) and empirical evidence of policy interventions, and other studies to inform policy debate (Brown et al. (2000), Thorp and Paredes (2010), Eversole et al. (2005), Wodak (2008) and Beaman et al. (2008)). As Appadurai (2004) puts it, "Poverty is many things, all of them bad. It is material deprivation and desperation. It is lack of security and dignity. It is exposure to risk and high costs for thin comforts. It is inequality materialized. It diminishes its victims. It is also the situation of far too many people in the world, even if the relative number of those who are escaping the worst forms of poverty is also increasing."

In psychology, there is a wealth of knowledge on exclusion in the study of stress, motivation, self-worth, self-esteem and what constitutes a purposeful life for individuals (Maslow (1943), Costa and McCrae (1980), Keyes (1998), Masten et al. (2009) and Stillman et al. (2009) among others.). Related to this paper, there is evidence found of a general consensus that (ethnic) minority status is a negative predictor of psychological well-being originating from social exclusion⁴.

Another research topic that has been crosscutting disciplines is SWB. Psychologists have long been interested in the psychological well-being, which is a related concept to SWB of individuals; essentially to analyse whether the individual perceives his or her life as worthwhile. Recently, SWB has been taken with great interest by economists and public policy analysts since it has been starting to serve as a useful goal criterion (Diener (2000), Veenhoven (2004), Clark and Senik (2014)

³ Refer to Stewart et al. (2005) where they illustrate the importance of horizontal inequalities (between groups) as compared with vertical inequalities (between individuals) with evidence from United States and South Africa.

⁴ Refer to Walton and Cohen (2011) and Yoo and Lee (2005)

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and the chapter of Graham (2005) with a focus on Latin America relevant to this paper). This is undertaken by understanding the determinants of an individual's SWB⁵. However, SWB literature has not adequately considered social exclusion as a (potential) determinant⁶.

The ultimate objective of this study is to enrich policy debate through addressing the impact of social exclusion, in particular the cognitive evaluation of exclusion. A mention to the capabilities approach as made popular by A. Sen is necessary (Sen (1979) and Sen (2001))⁷. Especially, given that relational capabilities construct operationalized by Relational Capabilities Index (RCI) is used in this paper. The RCI succinctly captures the above discussed dimensions⁸ - inclusion/exclusion and social networks (the dimensions of the index include - integration to network, private relations and civic commitment⁹). In its inception and in the construction of the index (see table below), Relational Capabilities approach aims to introduce social capital and social inclusion in the capabilities paradigm. Hence, these two indicators (SWB and relational capabilities) constitute our outcome (or dependent) variables of interest to observe the interplay of perception of exclusion on the goal criteria of SWB and relational capabilities. These two outcome variables jointly constitute the *Quality of Life* assessment.

The analytical framework of this study faces some challenges. Perceptions of exclusion is probably the robust way to evaluate social exclusion, but this comes with an intractable problem of endogeneity - *causality*. On this front, the novelty or contribution of this paper is the utilization of the dashboard measurement metrics of social divisions, a *second best* way to corroborate evidence that explains social exclusion via - fractionalization and polarization index - as extensively found in the study of economic growth, provision of public goods, social conflict and civil wars.

⁵ SWB has two key components. First, hedonic (emotional evaluations) well-being which is commonly measured as the happiness question. Second, eudaimonic (cognitive evaluations) well-being which is commonly measured as the life satisfaction question.

⁶ To our knowledge, there are two studies making this link from a distance - Bellani and D'Ambrosio (2010) and Vroome and Hooghe (2015)

⁷ A unique article by Graham and Nikolova (2015) brings these two domains of SWB and capabilities together.

⁸ Alternately, A. Sen terms this as substantive freedoms of people to lead the lives they have reason to value.

⁹ Refer to the latest continuous version of the index, RCI 2.0 - Giraud et al. (2015); and Giraud and Renouard (2009) Giraud et al. (2012) for the theory and application of relational capabilities which is informative for this study.

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Table 1: Relational Capability Index: Dimensions and components

Dimensions	Components	Deprived if
Integration to network	Employment status Access to transport Access to telecommunications Access to information	No stable job with regular professional relations Not satisfied with public transport Does not use a phone (portable or landline) Doesn't obtain news more than 3 days/week from radio, television or newspaper
Private relations	No. of people in the HH Family ties Close friends Financial support Trust in the community	- missing - Doesn't feel that he & his family are heading in the right direction - missing - No remittances from relatives or friends Safety in the neighborhood getting worse
Civic commitment	Membership Collective action Vote Solidarity Trust in others	- missing - Doesn't believe social movements are normal or necessary Does not vote - missing - No trust in people in general

2 Social Divisions

We postulate that social conflict is often a symptom of social exclusion. This appears observable and is supported by experiences of many individuals and particular groups in the world. Social exclusion can be reflected in a range of phenomena experienced in various degrees compared to other groups in the same society. This is the reason we investigate the dashboard measures of social divisions - simple (groups) proportions, fractionalization, polarization, cultural distance, segregation, cross-cuttingness, horizontal inequality, and intermarriage indicators. This clearly and may even explain some individuals and groups' sense of social exclusion.¹⁰ Due to data constraints, we propose testing three measures which include: proportions of groups, fractionalization and polarization.

The study of social divisions undertaken for the last few decades have been primarily focused on the analysis of social conflict. The purpose is to understand the potential resulting or outbreak of a civil war (propensity, onset, duration and intensity of a conflict). The works of Esteban and Ray (1994), Montalvo and Reynal-Querol (2002) and Duclos et al. (2004) has explored this in depth and explain the conditions under which a social conflict can occur.

This study of social conflict further developed towards other domains as found in the analysis of public goods provision such as (Banerjee et al. (2005), Alesina et al. (2012), Egel (2013) and Gisselquist et al. (2016)). Economic growth is focused on by (Easterly and Levine (1997) and Staveren and Pervaiz (2015)¹¹). This ever increasing empirical work suggests that diversity has adverse impacts. In fact, Habyarimana et al. (2007) suggested that instead of confirming that such a relationship exists, research should focus on under what conditions the relationship exists. However, there is novel evidence contesting such a widely accepted relationship - Gisselquist et al. (2016) - that diversity can indeed support clear welfare gains.

In a nutshell, our paper is to explain the effects of perceptions of exclusion on SWB and relational capabilities, if any. Furthermore, we want to verify if social divisions explain the individual's perception of exclusion. We expect that polarization *rather than* fractionalization should explain the exclusion better, if the theory and empirical works of social divisions is any indication.

¹⁰ Refer to McDoom and Gisselquist (2015) for a detailed review of how these measures of social divisions relate to each other theoretically, conceptually and empirically.

¹¹ The latter paper is a new effort in clarifying the channels of ethnic diversity and economic growth.

3 Data and methods

We use region-wide data of Latin American countries to test our hypotheses from Latinobarómetro surveys. These surveys are uniquely suited for our analysis. This is an annual opinion survey, which includes approximately 20,000 individual interviews across 18 countries of Latin America and the Caribbean (LAC). The surveys are designed to monitor the development of democracies, economies and societies - using surveys to provide information using indicators of opinions, values, attitudes and behaviors. Latinobarómetro lack data on income whereas, it has data on wealth. Wealth being the sum of past income and the determinant of availability to save, it is therefore a good proxy for income we believe¹²), we have all the variables that we are interested in this study as we detail below.

Dependent variables: The dimension of SWB - life satisfaction - the evaluative judgment of one's life as a whole is available in these surveys as a four-point Likert-type scale of this form, "*Generally speaking, would you say that you are satisfied with your life?*" with responses of "very satisfied", "quite satisfied", "not very satisfied" and "not at all satisfied" to choose from.

Our other outcome variable of interest being relational capabilities, we use a set of questions found in the 2009 survey to construct the RCI for all individuals in the sample. Find the questions used for this purpose in Table 1^{13 14}:

Independent variables: information on the standard socioeconomic correlates like age, age squared, sex, education, occupation, marital status, size of the town/city, religious denomination, religiosity, ethnicity and wealth index. In addition, our explanatory variable of interest is the perception of social exclusion. Questions related to exclusion perception is present in the 2001 and 2009 survey wave.

¹² Data on types of assets available range from ownership of television, mobile phone and computer to owning second/holiday home. We construct a (simple average) wealth index from this.

¹³ RCI could not be constructed for 2001 and hence omitted, since a significant number of components that constitute the dimensions of RCI is not available, or deemed insufficient to best reflect the information captured in RCI.

¹⁴ Find in table 1 of appendix, the original set of questions used to construct RCI. They also reflect the ideally set of information to best reflect the RCI construct. As you might notice by comparison, the questions found in Latinobarómetro 2009 still closely reflect the 'ideal' RCI. However, this does not apply for the 2001 survey, hence we have omitted this round to construct RCI.

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2001: “How do you feel, mainly? Do you feel like a white, a mestizo, a (nationality), an hispano american, an indigenous, a black or an immigrant?”

This question captures the feeling of being disenfranchised that might allow people to choose their ethnic identity over identifying themselves as a citizen of that nation¹⁵. This serves as an indicator of social exclusion. We code this as an indicator variable where 1 = *not a (nationality)*, and 0 otherwise¹⁶. In 2009, we utilize a different question than the one (only) available in 2001.

2009: “Would you describe yourself as part of a group that is discriminated in (country) or not?”¹⁷

Starting 2009, Latinobarómetro surveys have incorporated the question of whether the respondent believes to be part of an ethnic group that is discriminated against. This is a contingent evaluation method (as used in stated preferences studies), and hence we believe this measure qualifies as a good candidate for explaining (part of the) SWB and relational capabilities. These are the overall robust assessments of lives in the evaluative sense and in the multidimensional approach respectively. Especially since revealed preferences approach performs worse than the stated preferences due to adaptation and coping mechanisms of individuals. In other words, individuals are denied of the opportunities to change the situation. This results in individuals understating the welfare costs of say pollution, inequality, inflation and unemployment.¹⁸ This is demonstrated with examples from Latin America by Graham (2009). This variable is coded as 1 = *yes*, describe myself as part of a group that is discriminated against and 0 otherwise.

As we are interested in investigating how social divisions might affect social exclusion in explaining SWB and relational capabilities. We construct these measures of social divisions (find below) with data on ethnic identities and interact them on individual’s sense of social exclusion. In the following section, we clarify this relationship as presented in our model and measures of social divisions.

¹⁵ This is a recurring theme of questions on opinions asked in values surveys. For instance, Afro Barometer surveys explicitly asks the respondents to choose between their national identity and ethnic identity.

¹⁶ We could also extend this to the feeling of an immigrant, but for simplicity we restrict our exclusion to only ‘disenfranchisement’.

¹⁷ This question reappears every year after 2009. A forthcoming extension paper will focus on a longitudinal study of the same hypotheses.

¹⁸ However, Layard (2006) maps out the merits and pitfalls of this approach which serves as a useful guidebook to inform public policy.

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3.1 Model

$$SWB_{i,c} = \alpha + X'_{i,c}\beta + Excluded'_{i,c}\gamma + ETH'_c\delta + Excluded'_{i,c} * ETH'_c\zeta + F_c + \epsilon_{i,c} \quad (1)$$

$$RCI_{i,c} = \alpha + X'_{i,c}\beta + Excluded'_{i,c}\gamma + ETH'_c\delta + Excluded'_{i,c} * ETH'_c\zeta + F_c + \epsilon_{i,c} \quad (2)$$

As mentioned earlier, our dependent variables are $SWB_{i,c}$ and relational capabilities ($RCI_{i,c}$)¹⁹ for each individual i in country c . X' a vector of socioeconomic correlates. F_c are the country fixed effects included to control for country level differences. *Excluded* is the explanatory variable of interest of social exclusion ('disenfranchised', in 2001 and 'discriminated', in 2009). ETH_c is the measure of social divisions which is constructed taking the country-level ethnic identities composition as the base²⁰. We construct fractionalization ($FRAC$) and polarization (POL) indexes and utilize these subset of measures of social divisions as presented below.

3.1.1 Relational Capabilities Index

$$D_k = \frac{1}{n} \sum_{i=1}^n a_i$$

$$RCI = \left(\prod_{k=1}^3 D_k \right)^{\frac{1}{3}} \quad (3)$$

Here, a_i are the components of RCI and D_k are the dimensions of RCI as found in table 1. The RCI is a geometric mean allowing for imperfect substitutability at the dimensional level (D_k). However, simple average that verify perfect substitutability property is used at the component level (a_i)²¹ as can be observed in equation (3).

¹⁹ We test the model for different components and dimensions of RCI to see the effect of exclusion on individual components and dimensions of relational capabilities.

²⁰ Although country level aggregation computation of social divisions is the convention, we could also explore a construction of these measures at a much more local level.

²¹ The justification for this aggregation method of a human development composite index (RCI) is found in Giraud et al. (2015).

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3.1.2 Fractionalization

$$FRAC = 1 - \sum_{i=1}^n \pi_i^2 \quad (4)$$

Here, π_i is the proportion of individuals that belong to group i and n is the number of groups. This measure produces scores ranging between 0 (perfect homogeneity) and 1 (perfect heterogeneity) i.e., the probability that two randomly selected individuals belong to a different group. This is the most commonly used measure of social divisions.

3.1.3 Ethnic polarization: Esteban-Ray (1994)

$$POL - ER(\pi, k) = k \sum_{i=1}^n \sum_{j=1}^n \pi_i^{1+\alpha} \pi_j |y_i - y_j| \quad (5)$$

$k > 0$
 $\alpha \in (0, \alpha^*]$ where $\alpha^* \simeq 1.6$

3.1.4 Ethnic polarization: Reynal-Querol (2002)

$$POL - RQ = 1 - \sum_{i=1}^n \left(\frac{0.5 - \pi_i}{0.5} \right)^2 \pi_i \quad (6)$$

π , i and n is the same as in $FRAC_c$. k is any constant, and α is ‘polarization sensitivity’ ranging from 1 to 1.6 (least sensitivity to highest sensitivity). $|y_i - y_j|$ is the euclidean income distance of the individuals belonging to i and j groups. Essentially, the POL-RQ belongs to the same family of measures as POL-ER, and is a specific case of discrete polarization when we substitute the euclidean income distance to *does/does not belong* to the group. Hence, $POL-ER(1,4) = POL-RQ$. This measure attains a maximum value at symmetric bi-modal distribution ($n=2$ and $\pi = 0.5$).

4. RESULTS - DESCRIPTIVE

The basic difference between the construction of fractionalization index and polarization index is the relative size of each group's contribution to the index. This is central to the study and analysis of the social divisions as the size of a group determines its ability to organize and mobilize for various ends. In fractionalization, each of the terms in the sum is the probability that two randomly selected individuals belong to different groups, when one of them belongs to a particular group i . These probabilities have the same weight in each of the terms of fractionalization index, but they have weight equal to the relative size of group i in the case of polarization index.

Put differently, in fractionalization index, the size of each group has no effect on the weight of the probabilities of two individuals belonging to different groups (say i and j , $i \neq j$). However, in the family of polarization indexes these probabilities are essentially weighted by the relative size of each group and is definitely true in our specific measure.

Roughly speaking, we can say that large (small) groups contribute to the index of polarization proportionally more (less) than their relative size. The opposite is true for the index of fractionalization: large (small) groups contribute to the index less (more) than their relative size.

4 Results - descriptive

Ethnic composition in the region as found in table 2 suggest that the Mestizos as an self-described ethnic identity are the majority in the region on average. The smaller or minority groups by population share include the Mulatto, Black and Indigenous persons that represent 10% of the population share or less²². However, all these ethnic groups population share varies widely from country to country.

The term “Mestizo” means mixed in Spanish and Portuguese, and is generally used throughout the LAC to describe people of mixed ancestry that include a white European and an indigenous background. Similarly, the term “Mulatto” – *mulato* in Spanish – commonly refers to a mixed-race ancestry that includes a white European and black African roots.

²² Although, Indigenous population is at 11.44% in 2001 and 8.59% in 2009, they are widely referred to as minorities in the LAC region due to their socioeconomic disadvantage. This is also evident for Indigenous group when we observe other metrics in this database.

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The regional average of Mulatto is at around 5%. In Brazil and the Caribbean countries where populations with African ancestry are widespread, their share can go up to 15%. This is similar with the Mestizos, they represent a majority in Mexico, and they are among the largest groups in most other Central American countries.

Sole increase as a population share is found among individuals identifying themselves as Mulatto, Mestizo and Asian by 1.36% and 12.58% and 0.07% respectively between 2001 and 2009 in the region. We also have taken note of the missing values in the surveys at 6.61% and 8.08% in 2001 and 2009 respectively. These pertain to “No answer / Don’t know”²³ and could be for a variety of reasons from people not willing to disclose their ethnic identity, not willing to be identified as part of one ethnic identity, not actually knowing their entire ancestry to provide a clear reply, or even consider that this is a private question to respond.

In figure 1, the exclusion perception of disenfranchisement and discrimination, as we notice here can reach approximately 50% and 30% in 2001 and 2009 respectively for certain groups.

Table 2: Ethnic composition for years 2001 and 2009

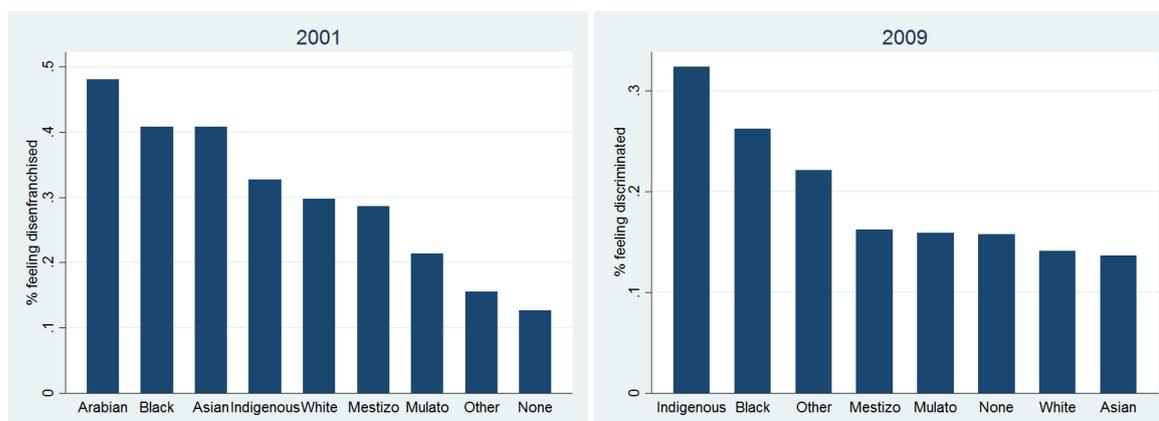
Ethnicity	2001			Ethnicity	2009		
	Freq.	Percent	Cumulative		Freq.	Percent	Cumulative
Black	1,415.77	7.81	7.81	Black	901.25	4.46	4.46
Indigenous	2,073.76	11.44	19.24	Indigenous	1,735.8	8.59	13.05
White	5,086.19	28.05	47.29	White	5,549.59	27.47	40.52
Mulatto	839.52	4.63	51.92	Mulatto	1,209.4	5.99	46.51
Mestizo	5,529.56	30.49		Mestizo	8,701.88	43.07	89.58
Asian	137.98	0.76	83.17	Asian	168.44	0.83	90.41
Arabian	68.62	0.38	83.55	Others	305.73	1.51	91.92
Others	907.2	5.00	88.55	.	1,631.89	8.08	100.00
None	878.05	4.84	93.39				
.	1,198.33	6.61	100.00				
Total	18,135	100		Total	20,204	100	

Indigenous groups’ exclusion perception hasn’t changed between the two years on the indicators of disenfranchisement and discrimination, whereas it has improved for all other groups. The group’s feeling of disassociation with national identity is at 32.29% from our 2001 survey. Indigenous persons are also most likely compared to other groups to report to have experienced discrimination according to our findings from 2009 survey at 26.69% of all indigenous persons. These experiences of discrimination based on ethnic identity reflects in them having among the lowest

²³ We ensure that the missing values doesn’t bias our results in our robustness checks.

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Figure 1: Exclusion perception by ethnicity for 2001 and 2009.



Note: The y-axes scale for 2001 and 2009 are different.

perception of upward mobility as can be observed in Figure A5 in appendix. Every other ethnic group edge out the Indigenous group in their perception of upward mobility which also include respondents who identify themselves as Black in 2001 and 2009²⁴. These are similar to the findings found in these comprehensive reports on Indigenous persons in the LAC region - Eversole et al. (2005) and more recently Costa et al. (2015).

In 2001, apart from the Arabian and Asian groups (who also incidentally constitute the smallest groups in the region), persons identifying themselves as Black feel the most disassociation from being a citizen of a country (48.09% and 40.82% and 40.83% respectively for Arabian, Asian and Black groups). In 2009, respondents belonging to Black group after the Indigenous group are among the most likely to report to have experienced discrimination due to their ethnic identity (26.22% and 32.35% respectively for Black and Indigenous groups). Black and Indigenous groups represent a population share of 7.81% and 11.44% in the same year of 2009.

Country wise averages of social exclusion provides additional insights on the concentration of this negative phenomena of disenfranchisement and discrimination (Figure A1 and A2 in Appendix). Brazil which has a relatively high share of Black population, also has the highest proportion of total population (all groups) who prefer to identify themselves with their ethnic identity rather than their national identity - over 50%. This is similar in the other Andean countries of Latin America where the share of people belonging to Indigenous groups are relatively higher -

²⁴ Concurrently, perception of upward mobility has marginally improved for all groups between 2001 and 2009.

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Ecuador, Peru and Bolivia (43.06%, 34.73% and 27.71% respectively). Mexico is another large Latin American nation situated in Central America which has higher proportions of their population disassociating themselves from national identities (33.68%).

Mexico also features among the top in 2009 with the total population shares having experienced discrimination at 16.82%. Again, Bolivia, Brazil, Peru and Ecuador²⁵ are among the countries with the largest shares of their population reporting to have been discriminated against due to their ethnic identities.

The importance of unpacking social exclusion cannot be stressed enough. Social exclusion also has consequences as we notice in our database for 2009 (table 3) where the intention to migrate (people who have *seriously* considered to migrate) among discriminated to another country is higher compared to the people without the intent (20.62% to 17.22%), whereas the people without the intent to migrate are also the largest chunk of the total population not experienced discrimination.²⁶

Table 3: Exclusion and Intent to Migrate - 2009

	Intent to migrate		
Discriminated	0	1	Total
0	13203	2738	15941.7
	82.78	79.38	82.18
1	2746	712	3457.27
	17.22	20.62	17.82
Total	15948.95	3450.049	19399
	100	100	100

However, internal migration from rural areas to urban areas for instance, doesn't seem to provide that respite that excluded people hoped for as we notice from our table 4. The motivations and incentives to migrate are numerous. They can be categorized as absolute and relative deprivation in terms of income or otherwise, and including social exclusion - Massey et al. (1993) and Stark and Taylor (1989). There are several studies in the developing and developed world context linking the social exclusion to poverty related deprivation - Shields and Price (2005) and Gordon et al. (2000).

This result is interesting because migration to cities or urban areas have long been

²⁵ In that order, at 31.71%, 26.36%, 24.69% and 21.74% respectively.

²⁶ The intent to migrate question is as follows - "Have you and your family ever seriously considered going to live abroad?" (Yes/No).

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Table 4: Exclusion by Size of Town

Exclusion	Size of town							Capital	Total
	Up to 5'	5'-10'	10'-20'	20'-40'	40'-50'	50'-100'	>100'		
2001 - Disenfranchised									
No	269.57	644.68	1053.96	1762.93	554.50	1486.18	3471.33	3596.36	12839.51
	2.10	5.02	8.21	13.73	4.32	11.58	27.04	28.01	100.00
	68.30	74.50	76.64	77.59	78.72	70.82	65.69	69.96	70.80
Yes	119.86	214.83	295.00	477.01	138.99	562.31	1738.94	1475.83	5022.78
	2.39	4.28	5.87	9.50	2.77	11.20	34.62	29.38	100.00
	30.37	24.83	21.45	20.99	19.73	26.80	32.91	28.71	27.70
2009 - Discriminated									
No	803.71	858.66	1698.71	2220.58	890.12	1705.31	5430.15	2319.06	15926.30
	5.05	5.39	10.67	13.94	5.59	10.71	34.10	14.56	100.00
	79.62	77.85	74.29	78.98	77.22	80.54	80.36	78.19	78.83
Yes	172.96	192.54	477.31	476.02	210.42	316.35	1054.89	553.44	3453.93
	5.01	5.57	13.82	13.78	6.09	9.16	30.54	16.02	100.00
	17.13	17.46	20.87	16.93	18.25	14.94	15.61	18.66	17.10

Note: A quick look suggests that size of town doesn't matter for the sense of exclusion in the years 2001 and 2009.

championed to be a liberating force to the migrants. But we notice here that despite the economic gains, the sense of social exclusion is not that different in urban areas or the economic centers of a society in comparison with low income areas. This phenomenon is studied in depth in the SWB literature. The paradox of income failing to contribute to SWB after a certain level of income is explored in the eponymous works of - Easterlin (1974) and more recently Easterlin et al. (2010) where he (re)establishes the relationship. Tables 5 and 6 below and the figure A4 in appendix on the wealth index cumulative distribution function graphs, descriptively lends support for this relationship in the Latin American context that there are the first emerging signs of the Easterlin Paradox.²⁷ This is also the founding principle of the capability approach to move away from a myopic income approach of human development, and operationalized in the Human Development Index (HDI) of the United Nations Human Development Reports (UNHDR). This approach is further developed in the RCI to include social networks and relational capabilities at an individual level; and to reflect the social cohesion and social capital at the societal level as mentioned earlier.

²⁷ A discussion on the Easterlin Paradox with examples from Latin America is found in Graham (2005).

4. RESULTS - DESCRIPTIVE

Table 5: Change in SWB and Income per capita.

Trends: Latin America (2000-2011)	
(n=18, time span = 7-12 years, mean = 11.72 years)	
Annual change in LS (scale 1-4)	0.052
Annual growth in GDP/capita (percent)	2.557

Table 6: SWB, Wealth Index and Income per capita - 2001 and 2009

Latin America (n=18, LS=1-4 scale, 11 assets)			
Year	Life satisfaction	Wealth index	GDP/capita
2001	2.90	5.92	\$ 3,523.3
2009	2.97	9.87	\$ 4,290.1

Clearly, this perception of exclusion is not strictly restricted to the historically disadvantaged or minority groups like Black and Indigenous populations in the LAC. We notice that other ethnic groups are not that far on these indicators. The greater the intensity of social divisions along ethnic lines²⁸, perhaps creates animosity between groups that leads to perception of exclusion by all groups despite a better socioeconomic status.

However, the social divisions alone might not fully explain the exclusion perception among non-Black and non-Indigenous groups. This sense of exclusion could be differently emanating for different groups indeed, and of course a range of factors contributing within these groups as well. Growing sense of entitlement and/or greater expectations (or rather due to unmet expectations - Graham and Nikolova (2013)) from the government for better policies to improve incomes and opportunities might be another reason. Several theories and empirical works have tried to explain this phenomena of ‘lackluster’ improvements in one’s lives. Differential cultural norms of specific ethnic groups could structurally shape perceptions and experiences about life. In addition, political scientists have long emphasized the importance of institutions and social contract of the state with its citizens to be one such determinant of people’s experienced quality of life.^{29 30}

Table A2 presents the perceptions of Latin Americans’ in their own personal future

²⁸ Social divisions indexes capture the distance between (ethnic) groups along several bases, which in our opinion is a aggregate index that provides indication of negative phenomena of social exclusion at the micro-level (individual).

²⁹ These are also reflected in the RCI scores when we disaggregate by dimensions (a special note on France’s counterintuitive relative low RCI score has been made).

³⁰ Senik (2013) provides a detailed account of the French unhappiness puzzle with a historical and cultural perspective of the French society.

4. RESULTS - DESCRIPTIVE

and that of their country's future from our sample of 2009. We disaggregate these perceptions by discriminated and non-discriminated people alike in this table. Figure A9 and A10 presents the same information by ethnicity. From the entire sample, 35.7% have a favorable opinion that the country's future economic situation is bound to improve (*"A little better"* and *"Much better"*). Out of which, people without discrimination experience have the favorable opinion at 36.57%, where discriminated people's favorable opinion is at 31.67%, a net difference of 4.9%. A similar gap is observed in people's optimism of their own future economic situation - favorable perception of the total population at 48.46%, non-discriminated population share at 49.42% and discriminated population share at 44.03% resulting in an optimism gap of 5.39%). Closing the gap within the entire population and in particular with the disenfranchised, discriminated, voiceless and in general socially excluded back into the cultural, economical, political and social life of a society is resonantly clear here.

The tepid confidence in future state of the economy and their own economic prosperity, can dampen aspirations, and hence may be the reason for poor rating of government, political representatives and the institutions. These very institutions are perceived to have failed to better the lives of the people in the LAC. This feeling is more pronounced among the discriminated population. Figure A8 describes the gap in reported confidence between the discriminated and non-discriminated population in a range of institutions and organizations. Political parties followed by judiciary and other state machinery like the public administration, police and parliament attract the lowest confidence opinion among the population (in that order, 24.10%, 33.28%, 35.24%, 34.73% and 35.69% for the total population share) and discriminated people with the lower levels of 18.34%, 26.98% 27.58% 28.67% 28.68% in the same order. The confidence gap between these two groups in these institutions is at least 7% and up to 10%). Church stands out among both groups believing to be most trustworthy of all institutions and organizations (71.18% and 68.10%). The confidence gap is also the lowest between the groups towards the Church (3.08%).

It is evident that religion and ethnic identities play a certain role in an individual's life in shaping their evaluative satisfaction of life and relational capabilities. Hence, we control for their differential effects using dummies in our model.

5 Results - regressions

We undertake OLS analysis in our regressions despite our dependent variable being ordinal, not cardinal (except for RCI). Ordered logit analyses could have been implemented, but in Ferrer-i Carbonell and Frijters (2004) the authors demonstrate that OLS works similarly in their performance as probit or logit analyses. In addition, coefficients from OLS are ready to interpret.³¹ Another model that could have been utilized is the hierarchical linear model (multilevel analysis) since our social divisions variable is computed at the country level. We notice that given the lack of other country level variables not included in our model (as it is also out of scope of this paper), we proceed with OLS³².

Of course, the indicative results discussed in the above section can be only treated with face-value as they are bi-variate correlations and there is a strong element of endogeneity - socially excluded people tend to report all types of negative phenomena. We are able to partially control for these correlates and disentangle the relative importance of each of the factors included in the analysis. This is not entirely clear from the endogeneity problem, but most importantly we attempt to see if measures of social divisions explain a part of the perceptions of social exclusion.³³

Many variables affect the quality of life³⁴ of individuals. Age and age squared terms of the age variable indicates that age takes a U-shaped relationship with SWB and RCI. This is found conclusively in the literature, and summarized in Clark and Oswald (2006). We see that for 2001 and 2009 the U-shape is confirmed, and is at its minimum for the age group 40-49, and regains the positive relationship for age 50 and upwards.³⁵ Being male in LAC has a positive effect on SWB and RCI. This result is against the literature where vast evidence suggests that women are on average happier than men. However, new research from Stevenson and Wolfers (2009) suggest that the gender gap in life satisfaction is closing and has even reversed in most industrialized countries in the recent years. This suggests that country-wise study is useful.³⁶

³¹ OLS is come to become the standard analytical framework in the literature.

³² We verify that multilevel analysis yield similar results as OLS.

³³ Indeed, tables A5 and A6 in the appendix allow us to observe that socioeconomic factors partly explain the individual's perception of social exclusion.

³⁴ As mentioned earlier, Quality of life construct includes both subjective and objective measures of well-being.

³⁵ Refer to Figure A11 through A14 in the appendix.

³⁶ Refer to the coefficients of 'age', 'age squared' and 'male=1' tables 7, 8 and 9.

5. RESULTS - REGRESSIONS

Other demographic factors like wealth index (our proxy for income³⁷) and companionship status of the individuals have similar effects on the SWB and RCI as found in the literature.

The wealth index is a significant determinant of life satisfaction and relational capabilities. It draws a coefficient of roughly +0.05 in 2001, +0.028 in 2009 which is 5% and 2.8% of a step on the 4-step Likert scale³⁸ of higher life satisfaction with every extra asset of the wealth index. Wealthier people are evaluating their lives better than poor people. However, with a coefficient of +0.007 in 2009, the association remains positive and significant between wealth and relational capabilities but has a much lower effect on relational capabilities precisely because RCI includes dimensions and components that might not allow better wealth to easily access, other things being equal.

Separated/divorced/widowed people rate their lives significantly less than married people as can be seen from table 7 and 8. Table 9 suggests that the direction of the relationship holds for separated/divorced/widowed individuals on RCI, however the coefficients are not significant. Being single also determines lesser life satisfaction and relational capabilities compared to being married. However, single people are relatively better off than the separated/divorced/widowed people.³⁹

In 2001, education defined here as number of years at school has a cross-sectional monotonically increasing relationship with life satisfaction. But in 2009, it displays a cross-sectional U-shape with life satisfaction. This is similar for relational capabilities and numbers of years of education of an individual albeit not significant. This will be interesting to explore further why the positive linear relationship in the early 2000 has changed in the recent years; with more data for several years controlling for cohort effects might provide a clearer picture.

Interestingly, as we observe the social exclusion variables (disenfranchised and discriminated for years 2001 and 2009 respectively) we notice something striking. Being socially excluded amounts to 6.5% (2001), 17.9% (2009) lower life satisfaction evaluation out of one step on the 1-4 scale. These are obtained from the model specifications without the interaction terms of social exclusion and social divisions

³⁷ It could also be considered a proxy for material well-being since the wealth index constitutes the goods and assets at the disposal of the household.

³⁸ To remind ourselves: the 4-step signifies, 4 = “very satisfied”, 3 = “quite satisfied”, 2 = “not very satisfied” and 1 = “not at all satisfied”.

³⁹ Subjective economic status, subjective health status and religiosity have a significant effect on SWB and RCI. However, we chose to omit them in our model as we aimed to retain only the most exogenous variables as explanatory variables.

5. *RESULTS - REGRESSIONS*

(model 3 in table 7 and 8).

Table 7: SWB and Social Exclusion - 2001

	Model 1	Model 2	Model 3	Model 4	Model 5
Age	-0.014*** (0.00)	-0.013*** (0.00)	-0.013*** (0.00)	-0.013*** (0.00)	-0.013*** (0.00)
Age squared	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)
Male=1	0.030** (0.02)	0.038** (0.02)	0.040** (0.02)	0.040** (0.02)	0.040** (0.02)
Years at school	0.013* (0.01)	0.014* (0.01)	0.014* (0.01)	0.014* (0.01)	0.014* (0.01)
(Years at school) ²	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)
Wealth index	0.051*** (0.00)	0.049*** (0.00)	0.049*** (0.00)	0.049*** (0.00)	0.049*** (0.00)
Married (omitted)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Single	-0.018 (0.02)	-0.008 (0.02)	-0.005 (0.02)	-0.005 (0.02)	-0.005 (0.02)
Seperated/Divorced	-0.051** (0.02)	-0.048* (0.03)	-0.048* (0.03)	-0.048* (0.03)	-0.048* (0.03)
Lives in the Capital	-0.043** (0.02)	-0.038** (0.02)	-0.037* (0.02)	-0.037* (0.02)	-0.037* (0.02)
Self-emp (omitted)		0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Public wage		0.072*** (0.03)	0.070** (0.03)	0.070** (0.03)	0.070** (0.03)
Private wage		0.013 (0.02)	0.013 (0.02)	0.013 (0.02)	0.012 (0.02)
Unemployed		-0.182*** (0.03)	-0.185*** (0.03)	-0.185*** (0.03)	-0.185*** (0.03)
Retired		0.055 (0.03)	0.057* (0.03)	0.057* (0.03)	0.057* (0.03)
Homemaker		0.014 (0.02)	0.013 (0.02)	0.013 (0.02)	0.013 (0.02)
Student		0.029 (0.03)	0.025 (0.03)	0.024 (0.03)	0.024 (0.03)
Disenfranchised			-0.065*** (0.02)	0.094 (0.15)	-0.403** (0.20)
Disenfranchised*FRAC				-0.228 (0.22)	
Disenfranchised*POL					0.481* (0.29)
Constant	3.051*** (0.09)	3.046*** (0.09)	3.068*** (0.09)	3.075*** (0.09)	3.083*** (0.09)
Observations	16201	16201	16017	16017	16017
Adjusted R^2	0.103	0.107	0.108	0.108	0.108

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 8: SWB and Social Exclusion - 2009

	Model 1	Model 2	Model 3	Model 4	Model 5
Age	-0.018*** (0.00)	-0.017*** (0.00)	-0.018*** (0.00)	-0.018*** (0.00)	-0.018*** (0.00)
Age squared	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)	0.000*** (0.00)
Male=1	0.021* (0.01)	0.024* (0.01)	0.020 (0.01)	0.019 (0.01)	0.019 (0.01)
Years at school	-0.011* (0.01)	-0.011* (0.01)	-0.010 (0.01)	-0.010 (0.01)	-0.010 (0.01)
(Years at school) ²	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)	0.001*** (0.00)
Wealth index	0.028*** (0.00)	0.027*** (0.00)	0.027*** (0.00)	0.027*** (0.00)	0.027*** (0.00)
Married (omitted)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Single	-0.027* (0.02)	-0.023 (0.02)	-0.025 (0.02)	-0.025 (0.02)	-0.025 (0.02)
Seperated/Divorced	-0.106*** (0.02)	-0.104*** (0.02)	-0.103*** (0.02)	-0.103*** (0.02)	-0.103*** (0.02)
Lives in the Capital	0.001 (0.02)	0.004 (0.02)	0.010 (0.02)	0.010 (0.02)	0.009 (0.02)
Self-employed (omitted)		0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Public wage		0.080*** (0.02)	0.084*** (0.03)	0.084*** (0.03)	0.083*** (0.03)
Private wage		0.019 (0.02)	0.018 (0.02)	0.018 (0.02)	0.017 (0.02)
Unemployed		-0.129*** (0.03)	-0.123*** (0.03)	-0.123*** (0.03)	-0.123*** (0.03)
Retired		0.022 (0.03)	0.016 (0.03)	0.015 (0.03)	0.014 (0.03)
Homemaker		0.009 (0.02)	-0.000 (0.02)	-0.001 (0.02)	-0.002 (0.02)
Student		0.052* (0.03)	0.043 (0.03)	0.042 (0.03)	0.042 (0.03)
Discriminated=1			-0.179*** (0.02)	-0.275*** (0.07)	-0.425*** (0.11)
Discriminated*FRAC				0.174 (0.12)	
Discriminated*POL					0.337** (0.15)
Constant	3.019*** (0.14)	3.029*** (0.14)	3.087*** (0.14)	3.080*** (0.14)	3.084*** (0.14)
Observations	18323	18323	17653	17653	17653
Adjusted R^2	0.098	0.100	0.107	0.107	0.107

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table 9: RCI and Social Exclusion - 2009

	LC	PR	CV	RCI
Age	-0.001** (0.00)	-0.003*** (0.00)	0.010*** (0.00)	0.002*** (0.00)
Age squared	0.000 (0.00)	0.000*** (0.00)	-0.000*** (0.00)	-0.000* (0.00)
Male=1	-0.021*** (0.00)	0.012*** (0.00)	0.011** (0.00)	0.010** (0.00)
Years at school	-0.001 (0.00)	-0.002 (0.00)	-0.003 (0.00)	-0.003 (0.00)
(Years at school) ²	0.000 (0.00)	0.000 (0.00)	0.000*** (0.00)	0.000** (0.00)
Wealth index	0.007*** (0.00)	0.004*** (0.00)	0.002*** (0.00)	0.007*** (0.00)
Married (omitted)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Single	-0.017*** (0.00)	-0.007 (0.01)	-0.004 (0.00)	-0.016*** (0.01)
Seperated/Divorced	-0.007 (0.01)	-0.003 (0.01)	-0.010 (0.01)	-0.008 (0.01)
Lives in the Capital	-0.022*** (0.00)	-0.029*** (0.01)	0.013** (0.01)	-0.018*** (0.01)
Self-employed (omitted)	0.000 (.)	0.000 (.)	0.000 (.)	0.000 (.)
Public wage	0.161*** (0.01)	0.019** (0.01)	-0.003 (0.01)	0.053*** (0.01)
Private wage	0.151*** (0.00)	0.001 (0.01)	-0.019*** (0.01)	0.040*** (0.01)
Unemployed	-0.005 (0.01)	-0.003 (0.01)	-0.020** (0.01)	-0.012 (0.01)
Retired	-0.047*** (0.01)	-0.022** (0.01)	-0.005 (0.01)	-0.031*** (0.01)
Homemaker	0.019*** (0.00)	-0.009 (0.01)	-0.020*** (0.01)	-0.014** (0.01)
Student	0.010 (0.01)	-0.004 (0.01)	-0.050*** (0.01)	-0.021** (0.01)
Discriminated=1	-0.043* (0.03)	-0.164*** (0.04)	0.029 (0.03)	-0.055 (0.04)
Discriminated*POL	0.039 (0.03)	0.169*** (0.05)	-0.057 (0.04)	0.015 (0.05)
Constant	0.695*** (0.03)	0.560*** (0.05)	0.431*** (0.05)	0.485*** (0.06)
Observations	14016	16151	16417	12285
Adjusted R^2	0.191	0.027	0.063	0.049

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

5. RESULTS - REGRESSIONS

As we proceed to test our primary hypothesis and interact the social exclusion variables with ethnic fractionalization index, the effect is more negative on SWB, but not conclusively significant (model 4 of table 7 and 8 for the years 2001 and 2009). On the other hand, when we interact with ethnic polarization index, the perception of discrimination is more negative (even compared to coefficients with interaction terms of social exclusion and ethnic fractionalization index) with 40.3% and 42.5% association of lower SWB of one step of the 1-4 scale. Furthermore, the effect of ethnic polarization on SWB becomes more and more negative as can be seen with the coefficient of the interaction terms being positive. All the variables in question are significant as well (model 5 of table 7 and 8 for the years 2001 and 2009).

Our results of social exclusion and social divisions' effect on RCI are somehow mitigated. A coefficient of -0.055 and a +0.015 (discriminated and interaction term respectively), however they are not significant. This could be due to the fact that RCI is a composite index with information on different categories of relational capabilities. Hence, when we focus on the three different dimensions that constitute the RCI by utilizing them as three dependent variables. We notice that feeling discriminated clearly reduces integration to networks with a coefficient of -0.043 and +0.039 (discrimination and interaction term respectively).⁴⁰ The personal relations dimension of RCI results in a significant coefficient of discrimination effect at -0.164 and the interaction term coefficient of +0.169 is consistent with the arguments made earlier that the exclusion emerges from lower material well-being which is realized by a stable job, and possessing satisfactory means for access to markets by transport digital connections - these are well captured in the dimension of 'Integration to Networks' of RCI.⁴¹ And more interestingly, the coefficients are negative and larger than the 'Integration to networks' dimension suggesting that the supports systems of friends, family and community are weak and vulnerable for discriminated people, and this dimension is felt more.

The "Civic Commitment" dimension of RCI and the positive relationship with social exclusion and social division seems to have a counter-intuitive result. When we disaggregate this dimension further we find something very interesting⁴². Feeling discriminated is positively associated with accepting dissent in its various forms as healthy in the political process; and positively determining voting behavior of the socially excluded people. However, these coefficients are not significant. Regardless of the lack of statistical significance, these coefficients are encouraging to

⁴⁰ Results found in model titled, "LC" in Table 9.

⁴¹ Results found in model titled, "PR" in Table 9.

⁴² Refer to results in table A7 in the appendix.

5. RESULTS - REGRESSIONS

believe that excluded people aren't (yet) disillusioned, and continue to believe in the redress avenues of the political affairs of the country to participate in bettering the public policies. The last component of this dimension is a significant negative relationship (-0.034) with the generalized trust - discriminated people have trouble trusting people in general. These results confirm our descriptive differences of gaps of RCI and its dimensions by social exclusion and ethnicity (table A3 and table A4 in the appendix).

In summary, as the theory of social divisions based on ethnicity indicates us, diversity (or fractionalization indexes) does not explain social exclusion as well as polarization indexes. Surprisingly, social exclusion is not restricted to absence of physical well-being alone and includes cultural estrangement, political disenfranchisement and social isolation. It spans across demographic characteristics as we have demonstrated - and strikingly across ethnic lines. Two different societies with same levels of income, wealth and inequality may have very different levels of social welfare as we attempt to show in this paper where the reasons for the perception of social exclusion is different for different individuals.

The interest of observing individuals' perception of social exclusion is what we believe to be a robust indicator of evaluation of the negative phenomena of one's life. Much like the life satisfaction as a measure of overall life satisfaction (eudemonic SWB). This measure to observe social exclusion (of disenfranchisement and discrimination in the LAC) works well to encapsulate a range of negative phenomenon. Of course, the precise measure or question that could be used from these barometer surveys may vary.

Hence, future work should focus on exploring social exclusion variables in other regions of the world. Also, to make the channels of social divisions in tandem with social exclusion's effect on the quality of life (subjective and objective indicators) clearer. Better data to include cohort effects and to allow us to perform country level analysis is another step in this direction.

6. CONCLUSION

6 Conclusion

Quality of life is significantly lower for social excluded people. Surprisingly, this perception of social exclusion is not restricted to the disadvantaged groups in the LAC. We have used the evaluative life satisfaction of SWB, and RCI as proxies for subjective indicators and objective capabilities to demonstrate this in our paper. More importantly, we demonstrate that social divisions along ethnic lines as measured by ethnic polarization explains this perception of social exclusion *and not* ethnic fractionalization. This is crucial since social tensions across a given demographic base is responsible *and not* ethnic diversity or heterogeneity of a population.

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Table A1: Relational Capability Index: Dimensions and Components

Dimensions	Components	Deprived if
Integration to network	Employment status	No stable job with regular professional relations
	Access to transport	No means of transport
	Access to telecommunications	Does not use a phone, a computer or the internet
	Access to information	Does not obtain news from radio, television or newspaper
Private relations	No. of people in the HH	Lives alone
	Family ties	No trust in family
	Close friends	No close friends providing psychological & emotional support
	Financial support	No financial support from relatives or acquaintances
	Trust in the community	No trust in people the individual knows
Civic commitment	Membership	No active membership in a group
	Collective action	No participation in political action
	Vote	Does not vote
	Solidarity	No active membership in common interest group
	Trust in others	No trust in unknown people

Note: Refer to Giraud et al. (2012) and Giraud et al. (2015) for more details on the RCI.

Figure A1: Population share of Social Exclusion by Country - 2001

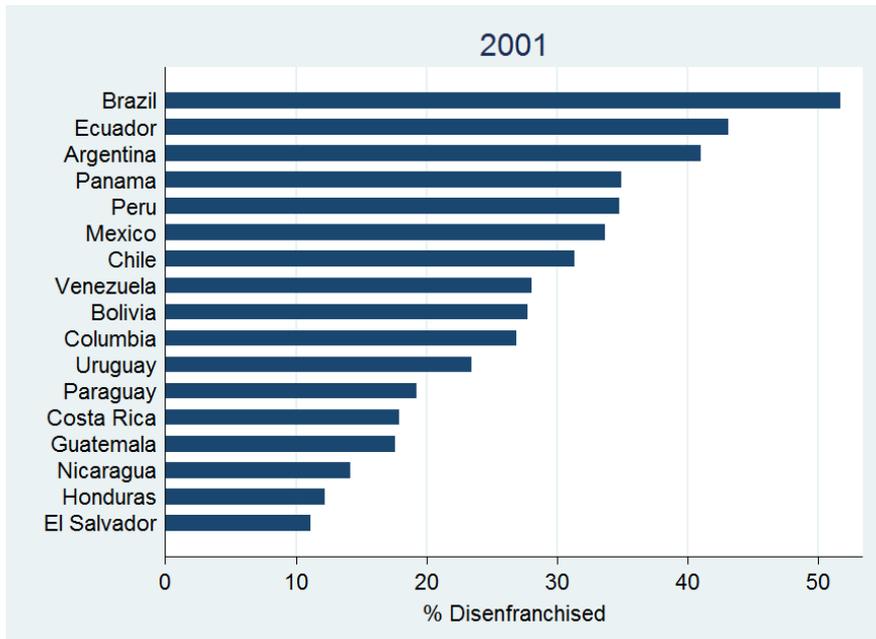


Figure A2: Population share of Social Exclusion by Country - 2009

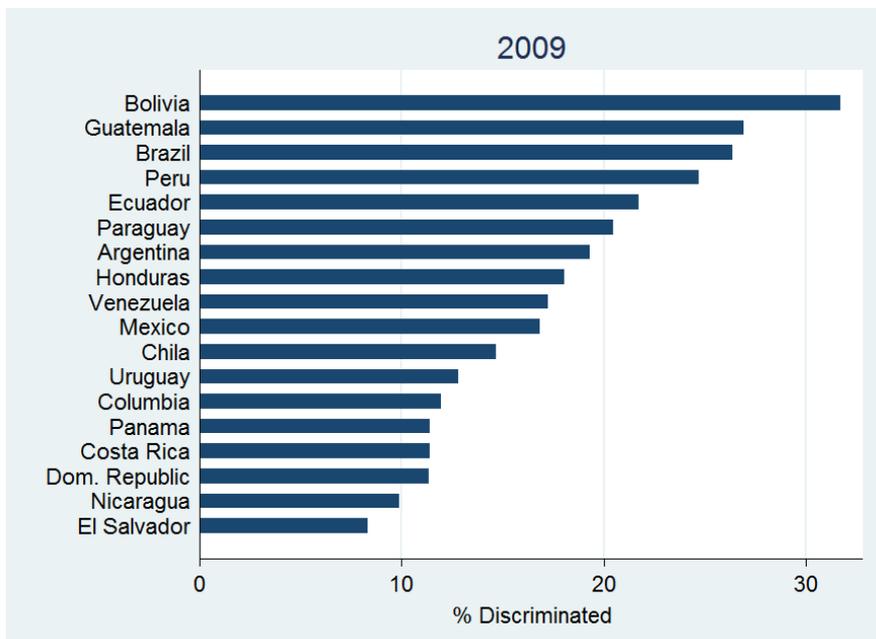


Figure A3: SWB and Wealth Index by Ethnicity - 2001

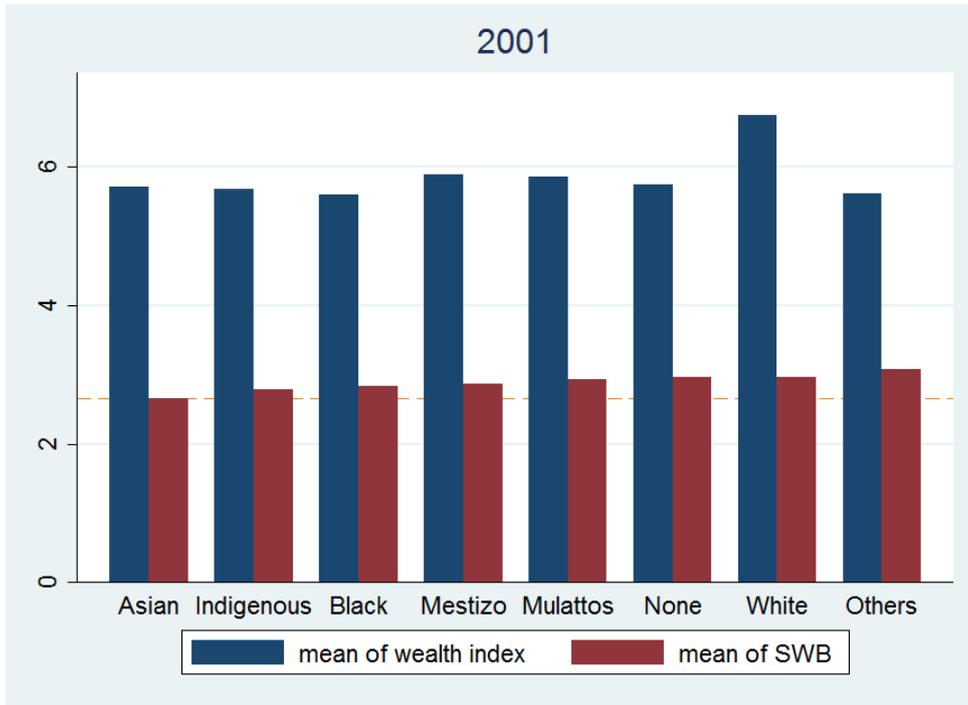


Figure A4: SWB and Wealth Index by Ethnicity - 2009

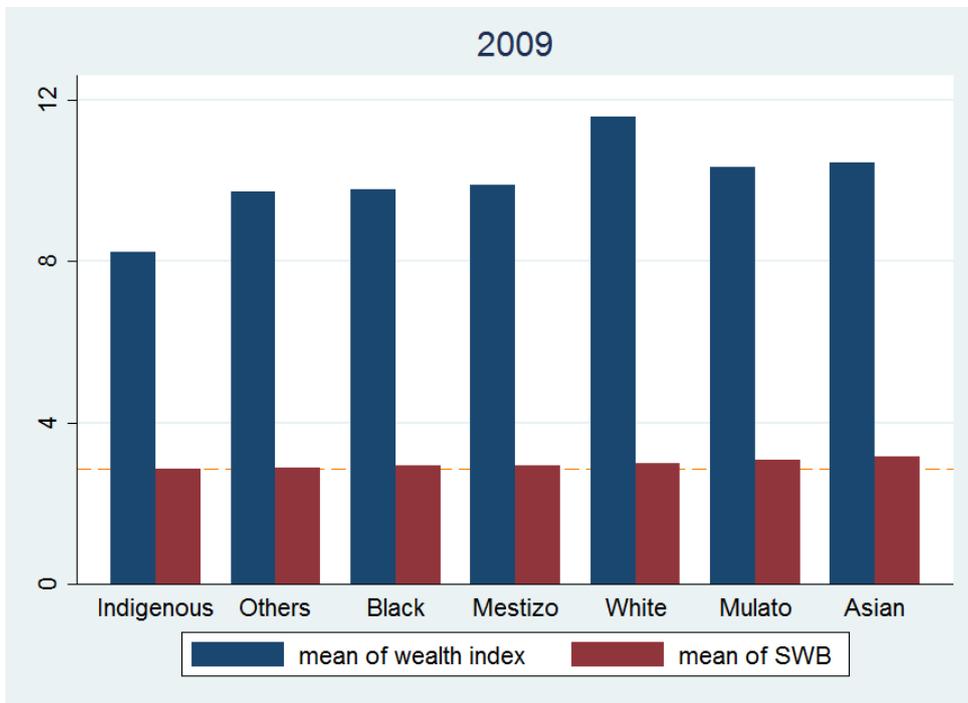
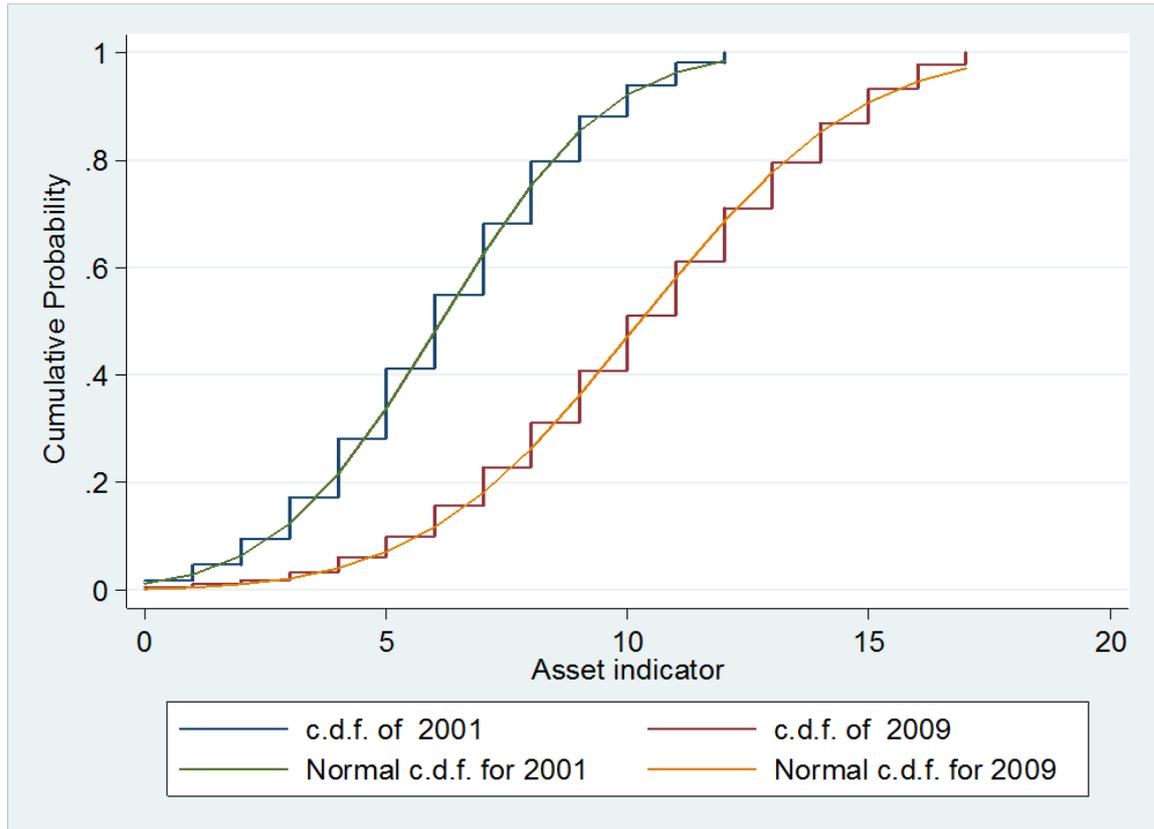


Figure A5: CDF of Wealth Index for 2001 and 2009



Note 1: Increased possession of number and types of assets in the household between 2001 and 2009.

Note 2: The list of surveyed assets included in the questionnaire *also* increased in these same years from 11 to 16.

Figure A6: Perception of Upward Mobility by Ethnicity - 2001

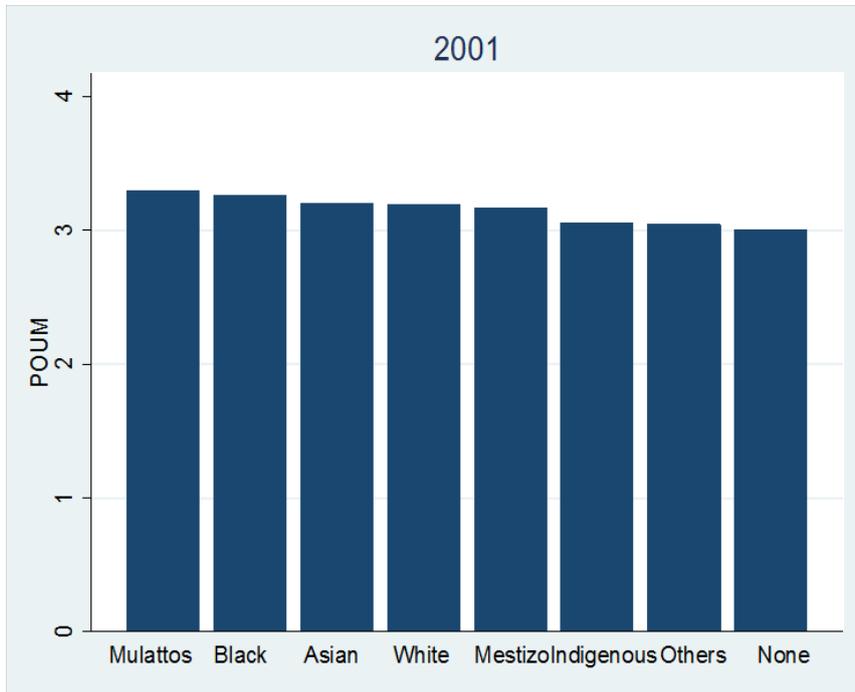


Figure A7: Perception of Upward Mobility by Ethnicity - 2009

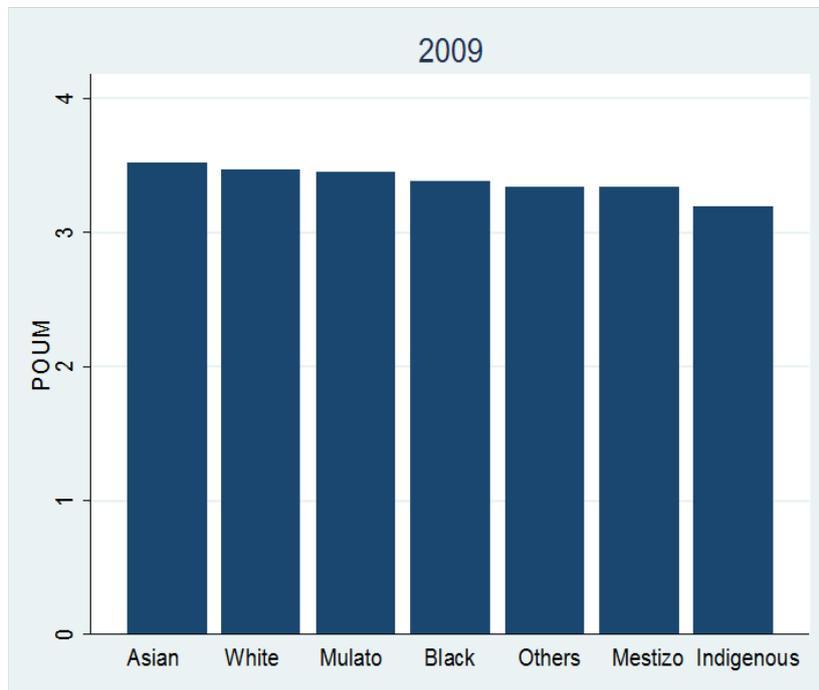


Table A2: Perception of future economic situation - 2009

Discriminated	2009					
	Country's future economic situation (much better(5) - much worse(1))					
	1	2	3	4	5	Total
No	1,212.71	2,631.75	5,494.43	4,526.59	858.98	14,724.45
	8.24	17.87	37.31	30.74	5.83	100
Yes	315.19	716.26	1,146.54	870.64	138.92	3,187.55
	9.89	22.47	35.97	27.31	4.36	100
Total	1,527.89	3,348.00	6,640.97	5,397.23	997.90	17,912.00
	8.53	18.69	37.08	30.13	5.57	100
	Future personal economic situation (much better(5) - much worse(1))					
No	659.65	1,605.46	5,165.20	5,690.25	1,569.89	14,690.45
	4.49	10.93	35.16	38.73	10.69	100
Yes	199.52	480.66	1,090.48	1,139.35	253.54	3,163.55
	6.31	15.19	34.47	36.02	8.01	100
Total	859.17	2,086.12	6,255.68	6,829.60	1,823.43	17,854.00
	4.81	11.68	35.04	38.25	10.21	100

Figure A8: Confidence in Institutions/Organizations by Discrimination



Figure A9: Perception of Personal Future Economic Situation - 2009

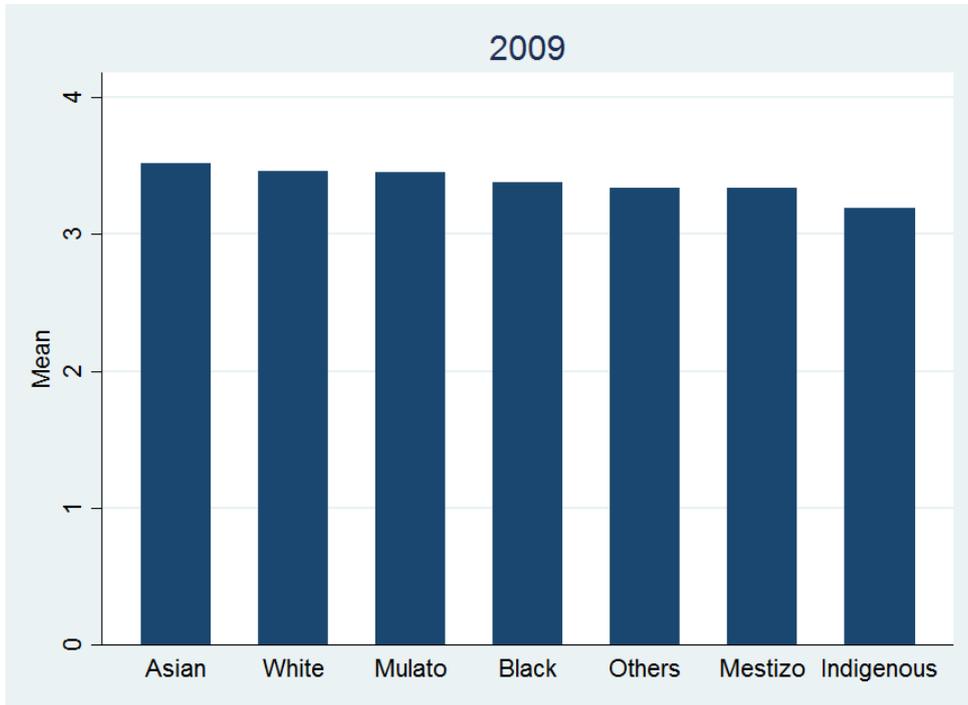


Figure A10: Perception of Country's Future Economic Situation - 2009

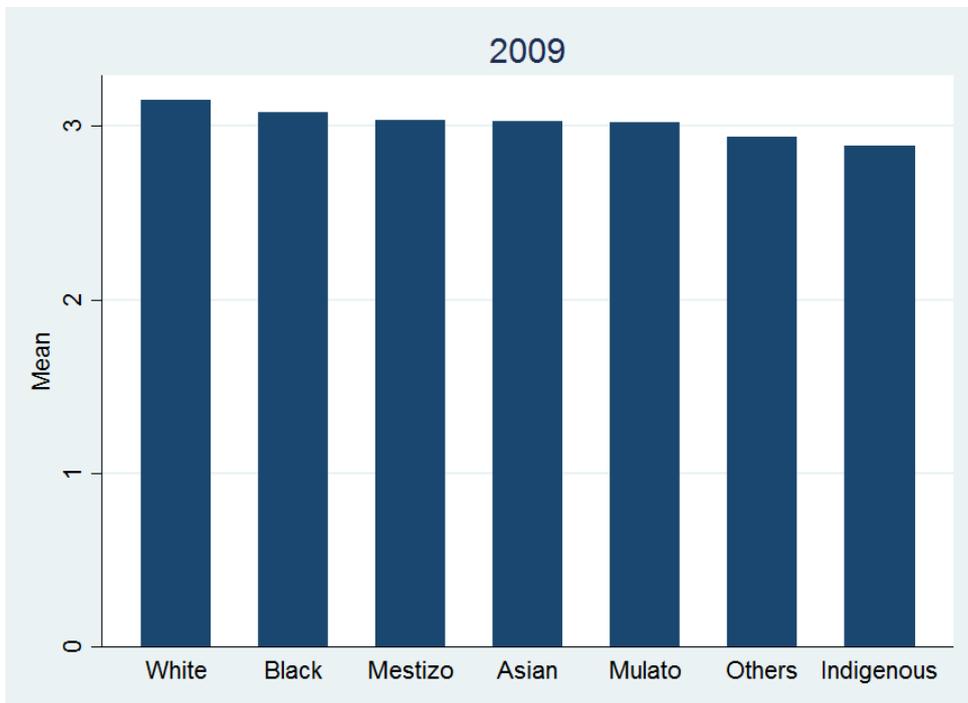


Table A3: RCI and Dimension Scores by Social Exclusion

	Discriminated - 2009		
	0	1	Difference
RCI	0.5686	0.5152	0.0534
Integration to network	0.7542	0.7274	0.0268
Private relations	0.5209	0.4751	0.0457
Civic commitment	0.6097	0.5973	0.0124

Table A4: RCI by Ethnicity and Social Exclusion

Ethnicity	RCI - 2009		
	Discriminated (0)	Discriminated (1)	Difference
Black	0.5432	0.5380	0.0051
Indigenous	0.5718	0.5356	0.0361
White	0.5815	0.5233	0.0582
Mulatto	0.5626	0.5462	0.0164
Mestizo	0.5629	0.4956	0.0673
Asian	0.6031	0.5880	0.0151
Others	0.5606	0.5093	0.0512

Table A5: Social Exclusion and Socioeconomic Correlates - 2001

	Disenfranchised
Age	0.001 (0.00)
Age squared	-0.000 (0.00)
Male=1	0.005 (0.01)
Years at school	0.006* (0.00)
(Years at school) ²	-0.000 (0.00)
Wealth index	0.001 (0.00)
Married (omitted)	0.000 (.)
Single	-0.001 (0.01)
Seperated/Divorced	0.015 (0.01)
Lives in the Capital	0.019* (0.01)
Self-emp (omitted)	0.000 (.)
Public wage	-0.025 (0.02)
Private wage	0.004 (0.01)
Unemployed	-0.012 (0.02)
Retired	0.010 (0.02)
Homemaker	-0.023** (0.01)
Student	-0.002 (0.02)
Constant	0.132*** (0.05)
Observations	16098
Adjusted R^2	0.070

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A6: Social Exclusion and Socioeconomic Correlates - 2009

	Discriminated
Age	0.001 (0.00)
Age squared	-0.000* (0.00)
Male=1	-0.009 (0.01)
Years at school	0.003 (0.00)
(Years at school) ²	-0.000* (0.00)
Wealth index	-0.012*** (0.00)
Married (omitted)	0.000 (.)
Single	0.005 (0.01)
Seperated/Divorced	0.028*** (0.01)
Lives in the Capital	0.034*** (0.01)
Self-employed (omitted)	0.000 (.)
Public wage	-0.019 (0.01)
Private wage	-0.018** (0.01)
Unemployed	0.017 (0.01)
Retired	-0.024* (0.01)
Homemaker	-0.032*** (0.01)
Student	-0.035** (0.01)
Constant	0.298*** (0.08)
Observations	17718
Adjusted R^2	0.055

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7: Social Exclusion and Civic Commitment - 2009

	Collective Action	Vote	Interpersonal Trust
Age	0.001 (0.00)	0.030*** (0.00)	-0.002 (0.00)
Age squared	-0.000 (0.00)	-0.000*** (0.00)	0.000** (0.00)
Male=1	0.017** (0.01)	-0.007 (0.01)	0.021*** (0.01)
Years at school	-0.000 (0.00)	-0.001 (0.00)	-0.005 (0.00)
(Years at school) ²	0.000 (0.00)	0.000** (0.00)	0.000 (0.00)
Wealth index	0.001 (0.00)	0.003** (0.00)	0.002 (0.00)
Married (omitted)	0.000 (.)	0.000 (.)	0.000 (.)
Single	0.005 (0.01)	-0.029*** (0.01)	0.009 (0.01)
Seperated/Divorced	-0.018 (0.01)	-0.013 (0.01)	-0.001 (0.01)
Lives in the Capital	0.012 (0.01)	-0.003 (0.01)	0.032*** (0.01)
Self-employed (omitted)	0.000 (.)	0.000 (.)	0.000 (.)
Public wage	-0.015 (0.01)	0.016 (0.01)	-0.014 (0.01)
Private wage	-0.029*** (0.01)	-0.005 (0.01)	-0.027*** (0.01)
Unemployed	-0.005 (0.01)	-0.044*** (0.01)	-0.005 (0.01)
Retired	0.000 (0.02)	0.010 (0.01)	-0.034** (0.02)
Homemaker	-0.026** (0.01)	-0.027*** (0.01)	-0.005 (0.01)
Student	0.011 (0.02)	-0.149*** (0.02)	-0.015 (0.02)
Discriminated=1	0.004 (0.01)	0.002 (0.01)	-0.034*** (0.01)
Constant	0.769*** (0.08)	0.220*** (0.07)	0.302*** (0.08)
Observations	17001	17464	17246
Adjusted R^2	0.040	0.165	0.031

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Figure A11: Mean SWB and Age - 2001



Figure A12: Mean SWB and Age - 2009



Figure A13: Life satisfaction and age (quadratic fit) - 2001

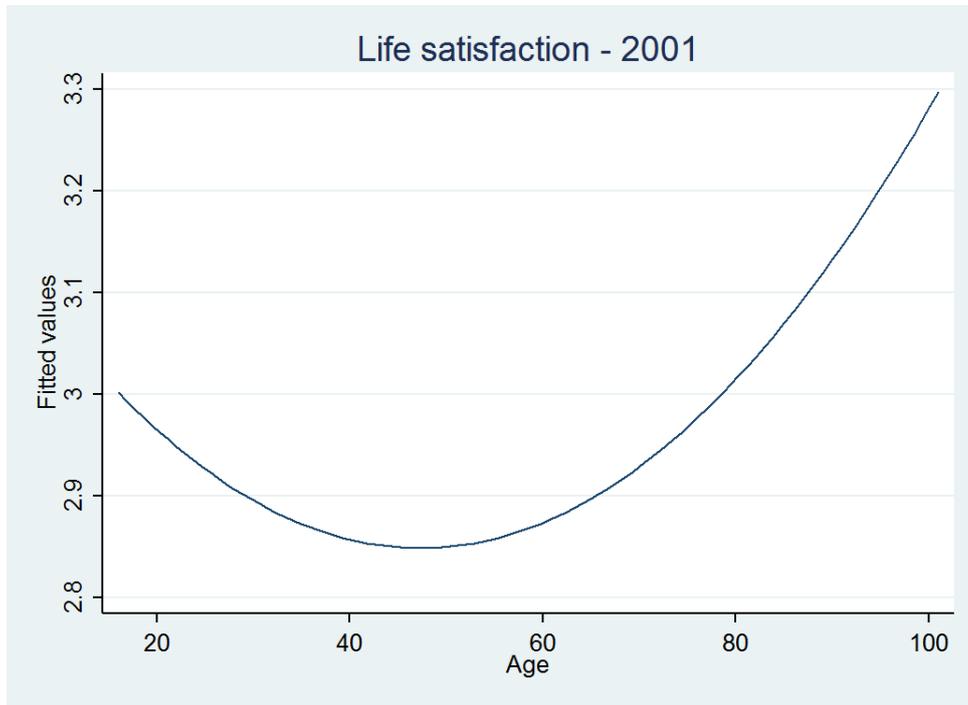


Figure A14: Life satisfaction and age (quadratic fit) - 2009

