Different worlds of welfare in a heterogeneous country: The Brazilian Case.

Helena Cruz Castanheira
Eduardo L. G. Rios-Neto

1. Introduction

Brazilian inequality is higher than 95% of the world countries with data available. The income earned by the top 1% population is equal to the income of the bottom 50% (Barros and Carvalho 2006). Household income differences are translated into a different mix of public-private social service use across the population. Despite the universal rights guaranteed by the 1988 Constitution, coverage rates of public health, education and cash transfers vary considerably among segments in the society. The public sector coexists with a high quality private system of social services.

A recent application of the three Esping-Andersen (1990) worlds of welfare to the Brazilian case regarding social policies (Kerstenetzky 2010) suggested that Brazil is a mix of Esping-Andersen's three worlds. It is "Social-Democrat" due to the importance of the public provision to the population, "Conservatist" regarding Social Security and "Liberal" due to the strong private sector restricted to high income individuals. In terms of labor market guarantees, Filgueira (2007) highlights the expressive sum of workers in Latin America in general with no rights at all. The labor law that guarantee social security, maternity leave and health insurance only to formal workers. However, more than 50% of the labor force are in the informal labor market and has no protection at all. This phenomenon is also called the "truncated" welfare state by Lindert, Skoufias e Shapiro (2006). .

This case study of Brazil aims to identify the mix of public-private provision to individuals in the classical areas of state interventions (health, education, social security and welfare programs), segmented by age, sex, and other dimensions. Latent profiles are identified for each life course stage as defined by individual classification in age groups sometimes interacted with sex(0-5, 6-17, 18-24: females and males, 25-59: females and males, 60+: females and males). Four latent profiles are estimated for each group of individuals applying the Grade of Membership (GOM) technique, which allow fuzzy clustering and inform the predominant characteristic of each individual profile. Results indicate that social coverage, the public and market divide, and income inequality interact with the individuals' life cycle to display a complex web of coverage (and lack of coverage) of the relevant social risks. The paper suggests that Esping-Andersen's typology is relevant, but it has to be complemented by by other measures to adjust to a highly unequal society.

2. Data and Method

2.1 Data and Variables

The database is the National Consumer Expenditure Survey (POF) 2008-2009, from the Brazilian National Institute of Statistics (IBGE). This survey was preferred over the National Household Survey (PNAD) because it had information about household or individual expenditures on education, health, Social Security, and it also included detailed income and tax payment information. The total sample size is 190,159 individuals and 55,970 households. Table 1 contains the sample size of each sample used to estimate the latent profiles.

Table 1

Sample Sizes

Age group	Sex	Sample Size
0 - 5	Female and Male	17,770
6 - 17	Female and Male	43,136
18-24	Female	11,848
	Male	11,704
25-59	Female	44,467
	Male	41,120
60 or more	Female	10,903
	Male	9,211
Total Sample		190,159

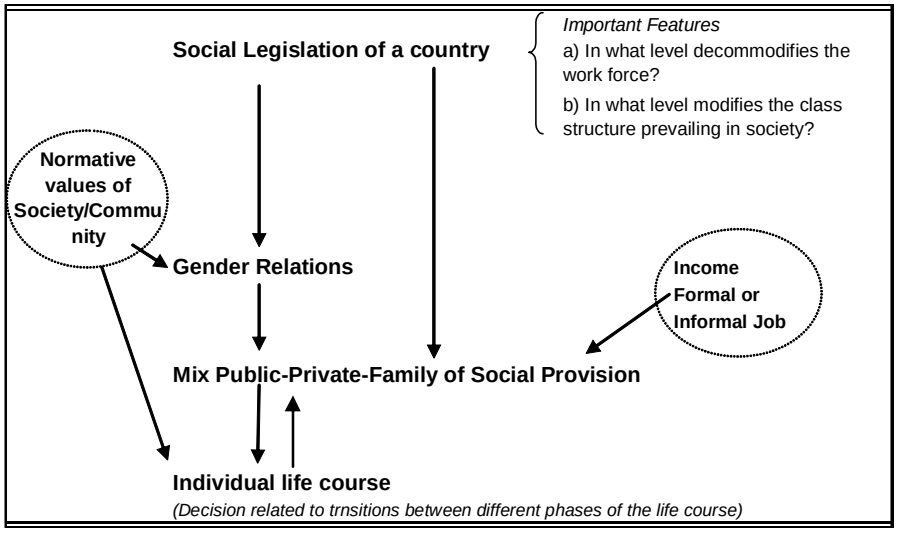
Source: Brazilian Consumer Expenditure Survey 2008-2009 - IBGE.

The variables were chosen to relate with three main themes based on Esping-Andersen's framework (1990 and 1999). The first one refers to "decommodification" which means the extent individuals do not depend on the exercise of their earning capacity in the market to generate income or to pay for the provision of state services. We use the following variables: public conditional cash transfer program, public retirement fund, public education and public health. The second, "commodification", is related to what extent the individuals generate their earning in the labor market and buy the provision of services in the market. The variables used are type of employment (formal or informal), private health, education and social security. Finally, "familization" is a concept to analyze in what extent the family follows a traditional breadwinner labor division measured by the type of family arrangement, women's occupation, and the care of family members.

In Figure 1 we shortly summarize the theoretical framework adopted in this paper. Although individual life cycle and life courses are influential, the paper does not suggest a longitudinal analysis, this dimension is captured by the stratification of individuals in age groups. The analysis is not focused on causality or the determination of transitions in the life course, on the contrary, our purpose is only descriptive and cross-sectional. Our goal is to "take a picture" of Brazilian society in 2008-2009 in terms of individuals profiles regarding the public-

private-family mix of social provision. Given the heterogeneity of the society we expect to find very different characteristics across individuals in selected age groups.

Figure 1



Source: Author elaboration from reviewed literature.

Some variables were classified at the individual level and others at the household level. At the individual level the variables contribute to estimate the profiles are: age, education attendance, type of school (public or private), total years of schooling, employment status, type of employment (formal or informal), occupation and a dummy if the person has at least one surviving child. Informal employment is attributed to individuals that don't pay any type of taxes to the State (Federal, Government or Local).

At the household level the variables contribute to calculate: type of family arrangement (one person, one parent, couple one income with at least one child, couple one income with no child, couple double income with at least one child, couple double income with no child and other), per capita household expenditure quintile, expenditure with education, domestic services, medicaments, health insurance, hospitalization and medical consultations. These household expenditures have each three categories: no expenditure, people in households with the higher

25% expenditures, and finally, the other 75% of the people with some expenditure in the particular category analyzed. All household level variables are merged to all individuals living in the household in order to pursue their classification.

An additional household level variable is an indicator if the family receives public transfers from conditional cash transfer programs and from social security. To individuals in the age group 0-5 and 6-17 their mother's information were merged in their individual file to generate their profile. The information used is mother's age, total years of schooling and type of employment (mother do not work, Private, Public, Rural, Domestic and Unpaid Employee, Employer, Self-Employed or household without a mother). Those are not household variables, but they may affect the individual directly since it is related to the mother care availability and the precariousness of her labor.

Finally, we will explain the selection of the age group boundaries and how they were selected since they are not the conventional boundaries used in demographic data analysis. The age group from 0 to 5 and 6 to 17 were differentiated due to their differences in the demand for care and provision of educational services. There is a higher demand for a more intensive care in the first group. The mandatory enrollment in Brazil during 2008-2009 started at age 6 (based on Law number 11,274 from 2/6/2006) and this is the main reason for the lower boundary of the second group. The upper bound of the second group is given the expected age to complete secondary education. Other non-obvious distinction is the separation of the young adults (18 to 24 years old) from the adults (25-59). This division was based on the fact that young adults are mainly entering the labor force and or finishing college during this stage, this is also the period of family formation. Adult individuals are usually more consolidated in the labor market and in their careers and present other stages in family composition (See Steiber and Haas (2006) for life course stage transitions and the labor force). The age limit of the adult individual to become old aged (60 year) is in common sense unreal and low; however it is based on the median retirement age of the Brazilian population and it is an average of the different retirement age rules of the Private Pensions System (RGPS).

2.2 Method

The Grade of Membership Model (GOM) is based on the fuzzy set theory (Manton, Woodbury e Tolley 1994) in which for each element i is attributed a grade of membership (g_{ik}) that stands for the proportion that the individual i pertain to the k set. For each individual i the $\Sigma g_{ik} = 1$. If, for all the elements of a set $g_{ik} = 0$ or 1 then the set will be crispy and the individual will belong to only one ideal profile or set k. Otherwise the individual will belong to a fuzzy set or profile. Thus, one individual can belong to more than one sets or profiles, varying by their grade of membership on each profile. The advantage of using the Grade of Membership model to parameterize fuzzy sets or profiles over *Fuzzy K-Mean* (SPSS) and FANNY (R program) is that GOM gives the probabilities that a specific variable category will pertain to a set or not (Guedes et al 2010). Therefore, not only the grade of membership of each individual for set 1 is created, but also a probability distribution of each variable of the set. In this way the latent characteristics of each profile can be easily identified which helps the interpretation and naming of these ideal profiles or sets.

The maximum-likelihood estimation (MLE) method is used to estimate the following equation:

$$\Pr(Yijl = 1,0) = \prod_{i=1,0}^{I} \prod_{j=1,0}^{J} \prod_{l=1,0}^{Lj} \left(\sum_{k-1}^{K} g_{ik} * \lambda_{kjl} \right)^{yijl} \qquad (1)$$

It maximizes the probability of a discrete response (Yijl) to the category l, variable j, in the profile k for the individual i (Woodbury and Clive 1974). This probability is given by the sum of multiplication of the grade of membership (g_{ik}) and the probabilities in each variable category (λ_{kjl}). The number of profiles is defined by the researcher, we decided for four profiles because it had the smallest AIC (Akaike Information Criterion). Two, three, four and five profiles were tested for each dataset (Table 1).

After obtaining the values of g_{ik} and λ_{kjl} we estimate the Lambda Marginal Frequency Ratio (LMFR) for each category. This measure helps to identify the main characteristics for each profile or its latent characteristics.

$$LMFR = \frac{\lambda_{kjl}}{(N_{kjl})^{-Nkj}} \qquad (2)$$

N_{kjl}: number of observations in the category

N_{kj}: number of observations in the variable j

A fuzzy cluster of individuals can be assembled using coding of individuals and Boolean expressions. We adopted the Boolean expressions below (Sawyer, Leite and Alexandrino, 2002) to classify the individuals. The individual will pertain to a profile k if $g_{ik} \geq 0{,}70$ with $k = 1,2,3$ or 4 or if:

$$(0{,}6 \leq g_{ik} < 0{,}7) \cap \begin{cases} g_{im} + g_{in} \leq 0{,}3 \\ g_{im} + g_{io} \leq 0{,}3 \\ g_{in} + g_{io} \leq 0{,}3 \end{cases} \text{ with } \begin{array}{c} k \neq m \neq n \neq o \\ \text{and} \\ k / m / n / o = 1,2,3,4 \end{array}$$

The mixed profiles are given by:

$0{,}60 \leq g_{ik} \leq 0{,}70 \cap 0{,}3 \leq g_{iz} \leq 0{,}4$ or

$0{,}40 \leq g_{ik} \leq 0{,}50 \cap 0{,}4 \leq g_{iz} \leq 0{,}5$

With $k \neq z$ e $k / z = 1, 2, 3, 4$

A GOM estimation was performed for each sample group described in Table 1. Although each sample entail different profile estimations, the latent characteristics of the four ideal profiles could entail similar names in all samples, a point that facilitated the interpretation of the results on an integrated fashion. The majority of individuals in the population belonged to one of the four ideal profiles, while only 19% of the total population sample belonged to a mixed profile.

3. Results

The profiles in each age group were characterized or named by their latency as “Family”, ”State”, “Market” or “Vulnerable”. Those titles help to identify individuals that belong purely to which “welfare triad” (family, state, or market).. The

characteristics listed are the ones that are more relevant for each profile but they are not necessarily present in all individuals classified in that profile.

The profile “Vulnerable” is a profile with no typical characteristic of family, state, or market, that is to say, none of these characteristics is representative of the profile.. The individual in this profile can receive conditional cash transfer program, “Bolsa Família”, from the State but it is not clearly fitted in the “State” profile. Among the two young group of individuals, this profile was largely characterized by the type of mother’s employment (Age 0-5 and 6-17). Among young and mature adults (Age 18-24 and 25-59) the profile is captured by “informal” or “uncovered” labor with no social guarantee of the labor law (no formal vacation, maternity leave, among other labor rights).

Figures 2 to 9 summarize the results individuals classified on the four ideal profiles for each of the 8 samples with a GOM estimation. The individuals classified as mixed are not included in these figures. The shaded area in each profile column highlights the typical variables describing the latent traits of the profile. In Figure 2 are the results to the 0 to 5 years age group. In the “Vulnerable” profile both parents work in the informal labor market, but individuals do not attend a private or public pre-school. They probably rely on informal care networks. This profile suggests vulnerability among the children in the 0 to 5 age group.

The profile with higher percentage of individuals from 0 to 5 years old is the “Family” profile (39.6%). Most mothers in this profile do not work. The “Market” profilepresents the lowest frequency of individuals (12.10%). It is marked by individuals that go to private preschool or childcare and with their mothers working with a contract (formal worker). Mothers in “market” have all the benefits of the Brazilian Labor Legislation (Maternity Leave, Vacations among others).

Figure 2 – Grade of Membership Profiles of Age Group 0 to 5 years old in Brazil 2008-2009

Variables			Profiles			
			Family	Market	State	Vulnerable
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Mother's Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
	No mother in the HH					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education		<40%		<40%	
	Health	Medicaments				
		Health Insurance				
		Hospitalization				
		Appointments				<20%
	Care					
Family Care	Care					
HH per capita Expenditure Quintile			2 and 3	3, 4 and 5	2	2
Mother Labor Contract			Do not Work	Formal Work	Informal Work	Informal Work
Mother Age Category			6-17, 60+	25-59	No mother	18-24
Mother Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Relative Frequency			39.60%	12.10%	13.10%	18.50%

Source: Authors elaboration.

The literature on early childhood development suggests that this vulnerability may lead to long term adverse consequences for these children in terms of acquired cognitive knowledge. The variable “public education” appears as a characteristic of the vulnerable profile (18.5%), but since we area talking about

children, this may be associated with other members of the household using public education. [1]

Figure 3 – Grade of Membership Profiles of Age Group 6 to 17 years old in Brazil 2008-2009

Variables			Profiles			
			State	Market	Family	Vulnerable
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Mother's Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
	No mother in the HH					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education				<40%	<40%
	Health	Medicaments				
		Health Insurance				
		Hospitalization				
		Appointments	<20%			<20%
	Care					
Family Care	Care					
HH per capita Expenditure Quintile			2 and 3	3, 4 and 5	2 and 3	2
Mother Labor Contract			Formal Work	Formal Work	Do not Work	Informal Work
Mother Age Category			18-24		6-17, 18-24, 60+	18-24
Mother Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Relative Frequency			12.70%	11.80%	33.10%	24.00%

Source: Authors elaboration.

[1] It is important to reemphasize that State, Market and Family characteristics are based on family overall use of these types of services.

In Figure 3 we have summarized the results to the 6 to 17 age group. A general feature in this sample is the high coverage of public education, represented by the fact that public education is not representative of any profile in particular. . The vulnerable families have health related coverage problems, with a large percentage of household income spent in medical and dental consultations and exams. The public health system stresses hospitalizations with underdeveloped primary care for this group,.

Figure 4 – Grade of Membership Profiles of Age Group 18 to 24 years old Females in Brazil 2008-2009

Variables			Profiles			
			Market	Family	Vulnerable	Market2*
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education					<40%
	Health	Medicaments				
		Health Insurance				<50%
		Hospitalization				<80%
		Appointments		<20%		
	Care					<70%
Family Care	Care					
HH per capita Expenditure Quintile			4 and 5	1 and 2	1 and 2	3 and 4
Type of Labor Contract				Do not Work	Informal	Formal
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Parent Status			Not a mother		Mother	
Relative Frequency			12.30%	38.60%	17.80%	14.20%

Source: Authors elaboration.

Figures 4 and 5 summarize the results for the 18 to 24 age group for females and males. This age group marks the transition to adulthood, a crucial stage to define social mobility and subsequent life course quality. There are two groups of young adults relying on the market. A group relies extensively on family resources to continue studies (Market Profile). Another profile relies in the market to the provision of health and of care, the individuals in this profile are head of households, and they work in low or middle position occupations (Market2). The Family profile is differentiated among men and women. Men and women do not work, but while the women already have children, men usually live with their parents. Finally, the most vulnerable families in this age group rely on conditional cash programs, work in the informal market, generally have children.

Figure 5 – Grade of Membership Profiles of Age Group 18 to 24 years old Males in Brazil 2008-2009

Variables			Profiles			
			Market2*	Family	Vulnerable	Market
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education		<40%	<40%		
	Health	Medicaments				
		Health Insurance				
		Hospitalization	<80%			
		Appointments				
	Care		<70%			
Family Care	Care					
HH per capita Expenditure Quintile			3 and 4	1 and 2	1 and 2	4 and 5
Type of Labor Contract			Formal	Do not Work	Informal	
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Parent Status			Father		Father	
Relative Frequency			23.90%	22.90%	19.20%	12.20%

Source: Authors elaboration.

Figures 6 and 7 summarize the age group 25 to 59 years old. The characteristics of family and social provision in this age group are highly related to the individual type of occupation, and whether the person is in the formal or informal sector. This link between social provision and working life is typical of this life cycle stage. The gender differentiation of the profiles is associated with family arrangements. One parent families are headed by women.

Figure 6 – Grade of Membership Profiles of Age Group 25 to 59 years old Females in Brazil 2008-2009

Variables			Profiles			
			Vulnerable	Market	Family	State
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education		<40%			
	Health	Medicaments				
		Health Insurance				
		Hospitalization				
		Appointments				<20%
	Care					
Family Care	Care					
HH per capita Expenditure Quintile			2, 3 and 4	4 and 5	1	2 and 3
Type of Labor Contract			Informal	Formal	Do not work	Formal and Informal
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Parent Status			Mother		Not a mother	Not a mother
Relative Frequency			21.50%	16.60%	35.00%	10.00%

Source: Authors elaboration.

Figures 8 and 9 summarize the last age group comprised by individuals aged 60 years or more. The main characteristic of this age group is that the "Vulnerable" profile is highly "decommodified", that is to say, the population receives cash transfers (BPC and/or CCT "Bolsa Familia" or the one minimum wage pensions). Among femaies, one profile is characterized by workers (informal or formal). Among males, two profiles were characterized as workers (informal and formal).

Figure 7 – Grade of Membership Profiles of Age Group 25 to 59 years old Males in Brazil 2008-2009

Variables			Profiles			
			Family	Market	Vulnerable	State
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education				<40%	
	Health	Medicaments				
		Health Insurance				
		Hospitalization				
		Appointments	<20%		<20%	
	Care					
Family Care	Care					
HH per capita Expenditure Quintile			1, 2 and 3	5	2, 3 and 4	1, 2, 3 and 4
Type of Labor Contract			Do not Work	Formal	Informal	Informal
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Parent Status			Not a father	Father	Father	Not a father
Relative Frequency			10.80%	21.90%	26.80%	17.60%

Source: Authors elaboration.

Figure 8 – Grade of Membership Profiles of Age Group 60 years or more Females in Brazil 2008-2009

Variables			Profiles			
			Family	Vulnerable	Market	State
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education					<40%
	Health	Medicaments				<25%
		Health Insurance				
		Hospitalization				
		Appointments				<20%
	Care					<70%
Family Care	Care		no expense	no expense		
HH per capita Expenditure Quintile				1, 2 and 3	4 and 5	2, 3 and 4
Type of Labor Contract			Informal or Formal			
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Relative Frequency			13.30%	18.50%	22.20%	27.70%

Source: Authors elaboration.

Figure 9 – Grade of Membership Profiles of Age Group 60 years or more Males in Brazil 2008-2009

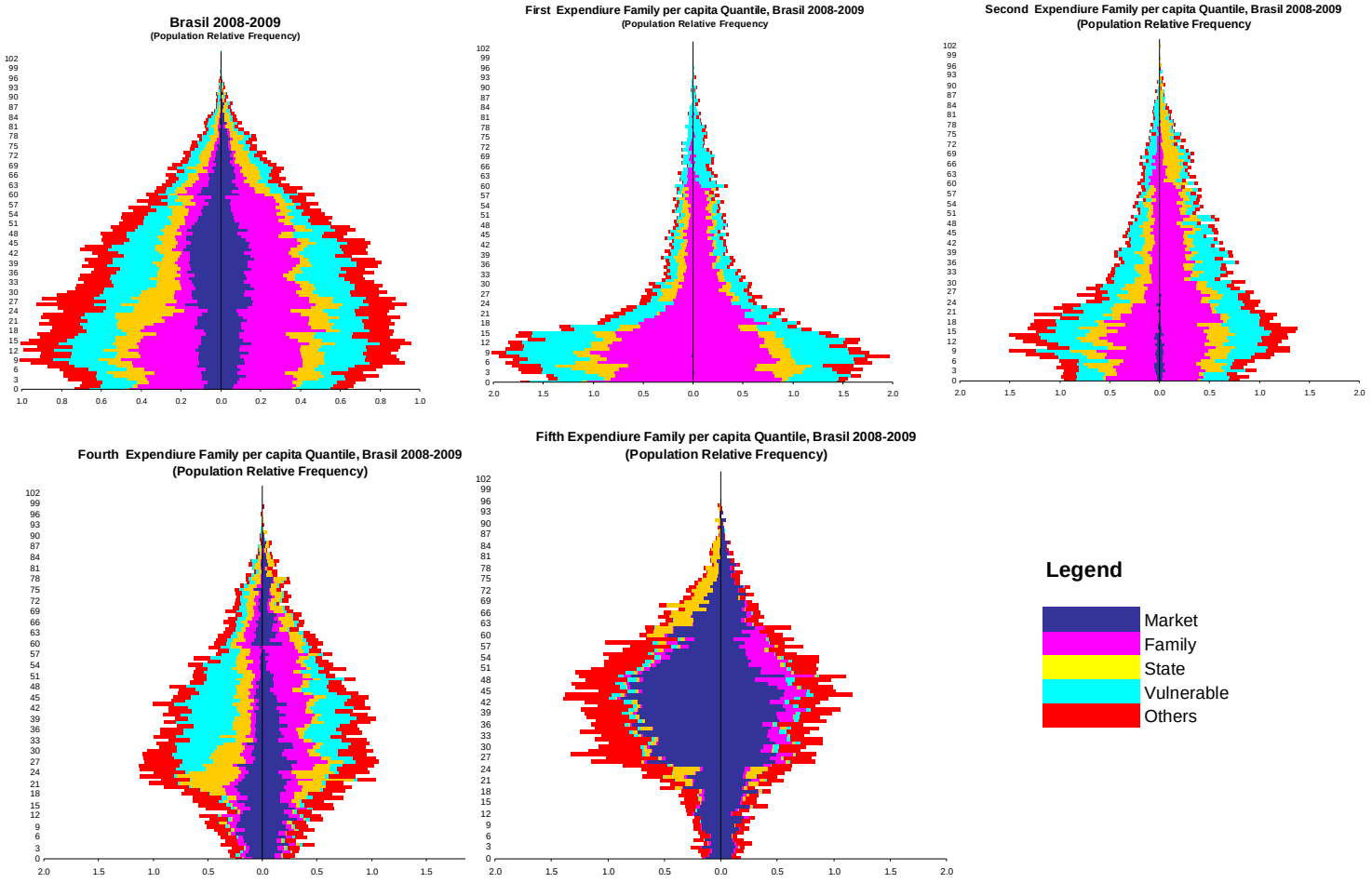
Variables			Profiles			
			Market	Vulnerable	Family	State
Family Arrangements	One Person HH					
	One Parent with Child					
	Couple One Income no Child					
	Couple One Income with Child					
	Couple Double Income no Child					
	Couple Double Income with Child					
	Other Family Arrangement					
Course Currently Frequenting	Day Care or Pre-School					
	Primary					
	Secondary					
	College or University					
	None					
Total Schooling (in years of Study)	None, or never attended school					
	1 to 4					
	5 to 8					
	9 to 11					
	12 or more					
State	Pensions: 1 Minimum Wage					
	Pensions: Other Values					
	Conditional Cash Transfer targeted on children (Bolsa Família)					
	Conditional Cash Transfer targeted on th elderly (BPC)					
	Education					
	Health					
Market	Private Pension Plan					
	Education					<40%
	Health	Medicaments		<25%		
		Health Insurance	<50%			<50%
		Hospitalization				
		Appointments				
	Care		<70%			<70%
Family Care	Care				sem gasto	
HH per capita Expenditure Quintile			4 and 5	1, 2 and 3	2, 3 and 4	4 and 5
Type of Labor Contract			Informal or Formal	Do not Work	Informal	Do not Work
Ocupation	Private Employee					
	Public Employee					
	Domestic Employee					
	Rural Temporary Employee					
	Employer					
	Self-Employed					
	Apprentice, Unpaid or Own-					
	Do not work					
Relative Frequency			17.50%	24.90%	16.70%	24.00%

Source: Authors elaboration.

In Figure 10 we show the relative frequency individuals belonging to the profiles divided by total population in each sample, with percentage represented in the sex-age pyramid, The sex-age pyramids are stratified household's per capita expenditure quintile. We can observe that the "Market" profile (dark blue) is highly predominant among individuals living in households belonging to the highest quintile of per capita expenditure. The "Family" profile (pink) is more

predominant among individuals aged 25-59 in the right size of the population pyramid which is partly due to the prevalence of female headed households. The "Vulnerable" profile (clear blue) can be found in all expenditures quintiles but the highest quintile (with highest per capita household expenditure). Vulnerabilty is associated with labor market informality and other dimensions that are not completely determined by income stratification, although vulnerable children are more prevalent among the poor segment of households.

Figure 10 – Relative Frequency of groups by age, sex, GoM profiles and Expenditure per capita quintile



The classification of all individuals separated by household per capita expenditure stratification and divided by the profiles developed from a GOM typology describe a snaptshot of the Brazilian heterogeneity in terms of welfare

regime (See Figure 10). “Family” profile is more prevalent among households at the bottom income segments, “Market” is more prevalent among the top quintile of household expenditure, while the “State” segment participates in all social segments, but targeted to different sex-age groups. The “Vulnerable” profile is only absent among individuals in the top quintile of household expenditure. In the fourth quintile it seems that “Vulnerable” means labor market informality, since few children are classified under this profile. “Mixed” profiles classified as others are more prevalent among the two top household expenditure quintiles.

4. Conclusion

Brazilian society has multidimensional combinations of social provision. The profiles are transverse to expenditure quintiles, although state social prevision is prevalent in all income segments, it combines differently with family and market according to the interactions among quintiles of household per capita expenditure, age, and sex. Vulnerability is another feature of this multidimensionality.

The combination of regressive state provision in social security with progressive targeted social assistance and transference to the poor is one heterogeneous side of the Brazilian welfare state.

The other side is the heterogeneity of health and education public services provided. The public-private divide indicates that young adults in the top expenditure quintile may rely on public education for the provision of tertiary education while poorer households would rely on private tertiary education. The provision of private health insurance complements the state universal access to health care. The fact that the Brazilian Universal Welfare State coexists with the private provision of health and education makes the use of private services restricted to people who can pay for the service. The payment is often justified by the difference in services quality.

Two main attributes were identified as closely related to the vulnerable profile. The first is the high labor informality, which is linked to what the literature refers as the 'truncated' welfare state. Second, the provision of personal care to individuals aged

0 to 5 is still precarious in Brazil, leading to the vulnerability of children of poor working mothers in terms of the provision of childcare and/or preschools.

We identified different characteristics of transition among individuals in the 18-24 age group. A group lives with their parents and relies largely on the resources provided by their family to continue its studies ("Market" Profile) while another group already has transitioned to family formation, with the reference person or spouse working in the formal or informal market ("Market2" and "Vulnerable"). Only among young adults in the "Market" profile College enrollment was a typical characteristic. The "Family" profile was more prevalent among male young adults who have not left home, do not work, and are studying in public schools. The prevalence of "Family" among female young adults present similar characteristics, although a higher percentage of women have left their parents' house starting a new family.

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