

Exit and permanence in *CadÚnico*: An analysis of 2005 beneficiaries of the *Bolsa Família* Program (PBF)

A study based on Single Registry records
(*CadÚnico*) and on *Bolsa Família* payroll

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* Study made in partnership between IMDS,
Open Social, and researchers Valdemar Neto
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Study plan

- From the 2005 payroll database of the *Bolsa Família* Program (**Payroll**), we will seek to evaluate exit/permanence of 7-to-16-year-old³ dependent beneficiaries of the PBF – individuals in a situation of poverty and extreme poverty – in the single registry (**CadÚnico**) 2019.
- In this first phase of the study, we will compare the **exit rate of CadÚnico** using clippings by age, race/skin color and sex. We will also analyze the exit rate by municipalities, microregions, states and regions.
- In a second phase of the study (not presented herein), we will identify municipal variables (from external bases, such as SUS, the Census and INEP) that are associated with territories where the exit rate of *CadÚnico* is higher.

³ In 2005, the maximum age to be considered dependent on the Program was 15. However, in practice, the benefit was only removed after completing 16 years of age at the end of the school period. Thus, we use 16 years of age to contemplate this period of "transition" from the dependent status.

About the *Bolsa Família* Program (PBF) Payroll

Initial reference base of the data (2005)

- The Payroll contains information on the beneficiaries of the *Bolsa Família* Program;
- Beneficiaries are divided into head beneficiaries, responsible for the family and for carrying the debit card on which the benefit amount is deposited, and dependent beneficiaries, family members who are eligible for the program;
- Information available in the registration updates of Payroll and *CadÚnico* are used to analyze the characteristics of beneficiary families;
- Payroll records used to contain only date of birth, identification of individuals, municipality, and amounts received in 2005. Over the years, new characteristics were added, e.g., in 2006, the gender of each beneficiary;
- The **population in the study, dependent beneficiaries aged 7 to 16** in 2005, comprises 11,628,300 people.

About the Single Registry (*CadÚnico*)

Final reference base of the data (2019)

- *CadÚnico* is a socioeconomic identification and characterization instrument of low-income Brazilian families, to be used for the selection of beneficiaries and integration of social programs of the Federal Government.
- Registration of low-income families caters to:
 - families with a per capita monthly family income of up to half a minimum wage; or
 - families that have a monthly family income of up to three minimum wages;
- The records were initially defined by [Decree No. 6135/07](#).
- After updates, [Ordinance No. 177/11](#), referring to version 7 of the registration, changed the classification of members of families and carried out a migration of *Bolsa Família* beneficiaries.

Question of interest of the study

- We will investigate the situation of beneficiaries between 2005 and 2019 from the following population clipping:
- **Dependent beneficiaries aged 7 to 16** – based on the likelihood of their not remaining in the Single Registry, we analyzed the exit not only from the Payroll, but also from *CadÚnico*, indicating that these individuals left – even temporarily – to meet the requirements established for *CadÚnico* (per capita income higher than half MW and total family income higher than R\$3 thousand).
- Being taken off the registry may occur due to several reasons:
 - Individuals who are young adults having an income superior to the defined limits
 - Individuals who even though within the criteria failed to update the registry
 - Individuals who passed away during the analyzed period

Note that the first group can be broken down into two quite distinct subgroups:

- Those who were structurally able to get out of poverty and have low likelihood of sliding back
- Those who are temporarily out of the "poverty line" but if there were any changes to their current situation (for example having a child, losing their jobs – even for a short while) would bring them back to the eligibility criteria.

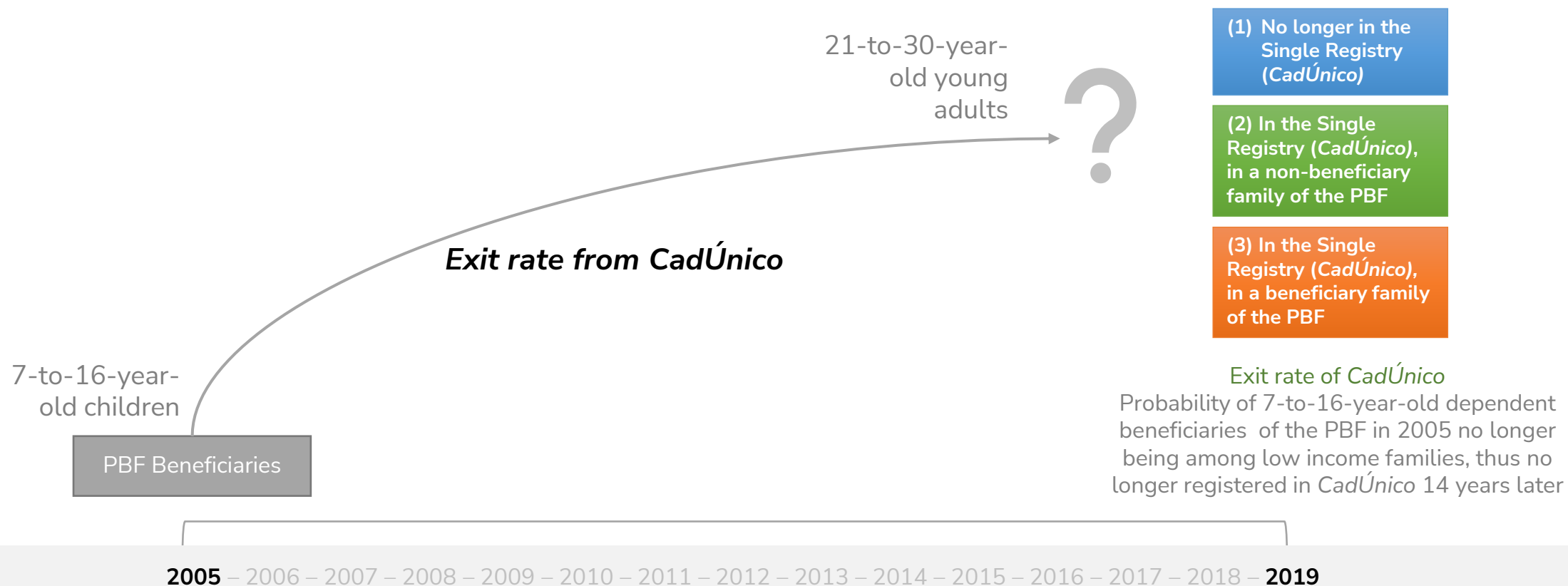
The first subgroup would represent the group that we could call individuals who have emancipated and that we could designate by the expression social mobility. Note, however, that with the available data, we cannot affirm anything to that end, aside from the fact that they are no longer in *CadÚnico*.

Question of interest of the study

A scheme to illustrate this way of looking at the question

Initial Situation (Payroll, 2005)

Final Situation (*CadÚnico*, 2019)



Exit from *CadÚnico*

The situation in 2019 of 7-to-16-year-old dependent beneficiaries of the *Bolsa Família* Program in 2005

What is the exit rate from *CadÚnico* for 7-to-16-year-old dependent beneficiaries in 2005, 14 years later?

- **64.1% (about 7.45 million)** 7-to-16-year-old dependent beneficiaries of the *Bolsa Família* Program in 2005 were no longer registered in the Single Registry (*CadÚnico*) 14 years later, in 2019. That year, this same population ranged between 21 to 30 years of age.

Situation of 7-to-16-year-old dependent beneficiaries in 2005, 14 years later	Beneficiaries	Distribution (%)
Total	11,628,300	100.0%
Remain beneficiaries of PBF	2,372,528	20.4%
Registered non-beneficiaries of the PBF	1,628,291	14.0%
Not found in <i>CadÚnico</i>	7,627,481	65.6%
Deceased (an estimate) ¹	176,376	1.5%
No longer in <i>CadÚnico</i> (Exit rate)	7,451,105	64.1%

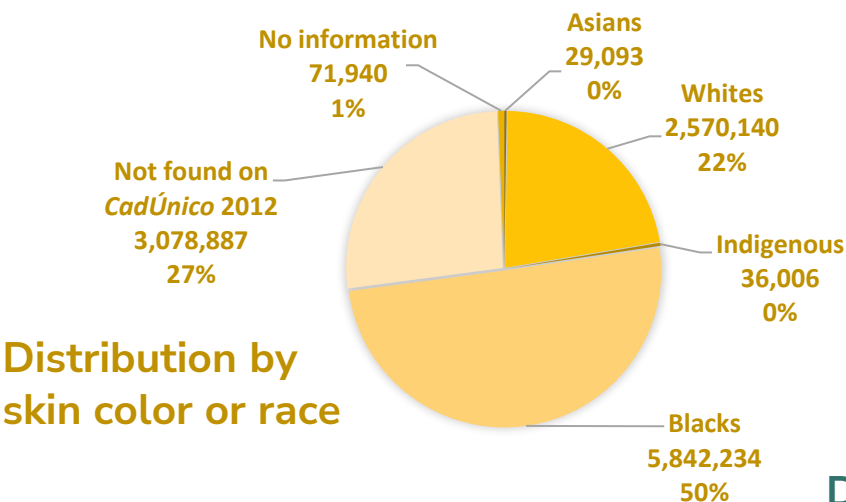
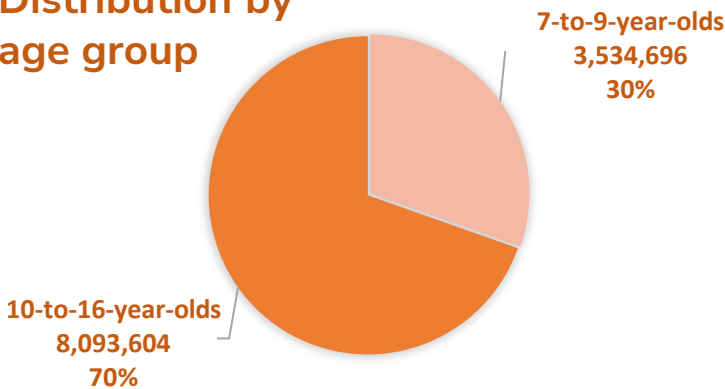
¹An estimate of mortality based on data from the population of PNAD and the Information System on Mortality.

About population clippings

- When observing rates by defined clippings of sex, skin color or race, and schooling of person responsible, certain details were taken into consideration:
 - In the case of **sex**, the characteristic can only be observed as of 2006, when the Payroll of the *Bolsa Família* Program introduced this variable. This is why it is not possible to identify the result for a segment of the population under study (17%) – 7-to-16-year-old dependent beneficiaries who were on the Payroll in 2005, but not in 2006;
 - In the case of **skin color or race**, the characteristic can only be observed as of 2012, when the variable is available in the Single Registry (*CadÚnico*). This is why it is not possible to identify the result for a segment of the population under study (27%) – 7-to-16-year-old dependent beneficiaries who were on the Payroll in 2005, but not in the Single Registry (*CadÚnico*) in 2012;
 - In the case of **schooling of person responsible**, it is not possible to identify the result for a segment of the population under study (33%) – 7-to-16-year-old dependent beneficiaries who were on the Payroll in 2005, whose head-of-household schooling was not found in the Single Registry (*CadÚnico*) 2012-2019.
 - The schooling of the 2005 head of household reported in the older Single Registry (*CadÚnico*) after migration to version 7 was considered, where this characteristic was recorded more accurately. Since it is not possible to observe schooling in 2005, the schooling of the head of household we use may be overestimated.

What is the profile of 7-to-16-year-old beneficiaries of PBF in 2005?

Distribution by age group

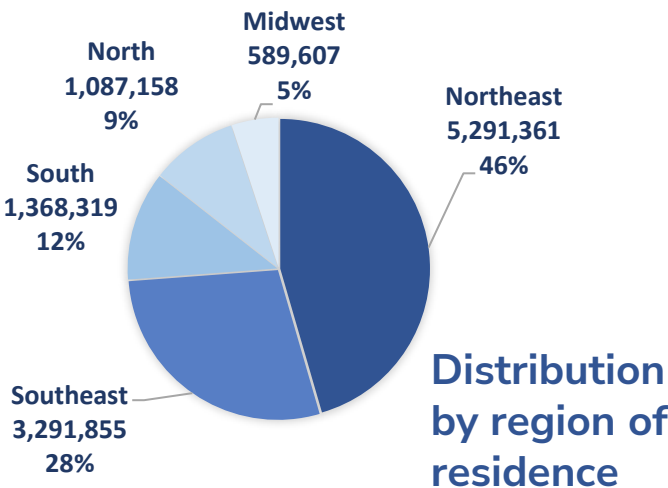
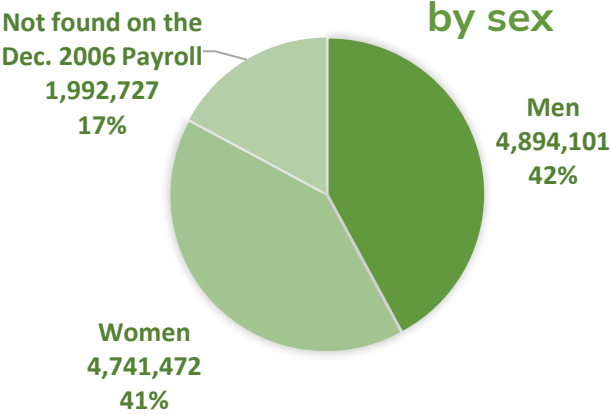


Distribution by skin color or race

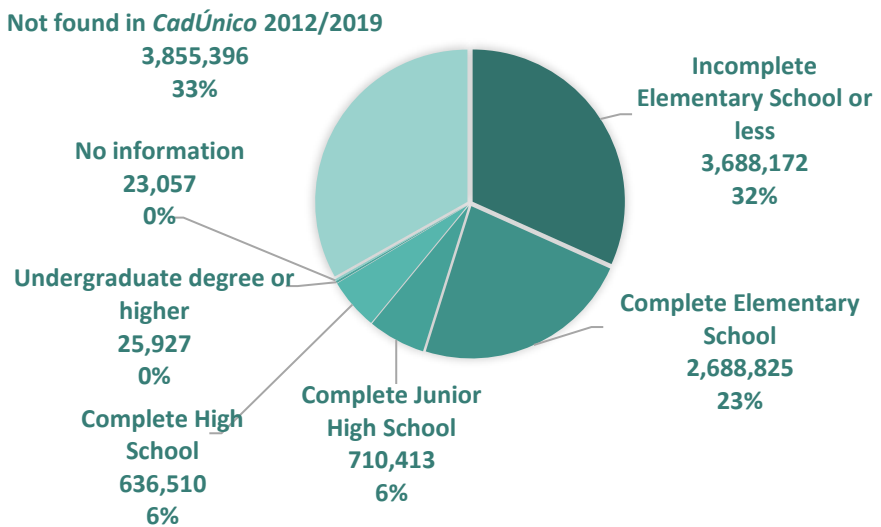
In 2005, 70% of this population were 10-to-16-year-olds, 46% resided in the Northeast region, 50% were Blacks (Mixed race or Black) and the greater part that had information about sex were men (42%).

Distribution of beneficiaries by schooling of responsible head beneficiary

Distribution by sex

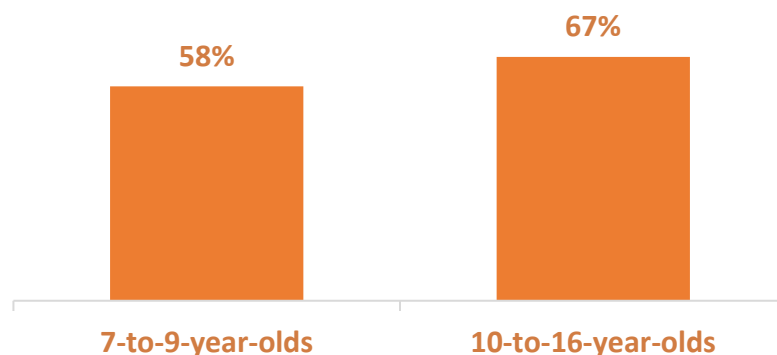


Distribution by region of residence

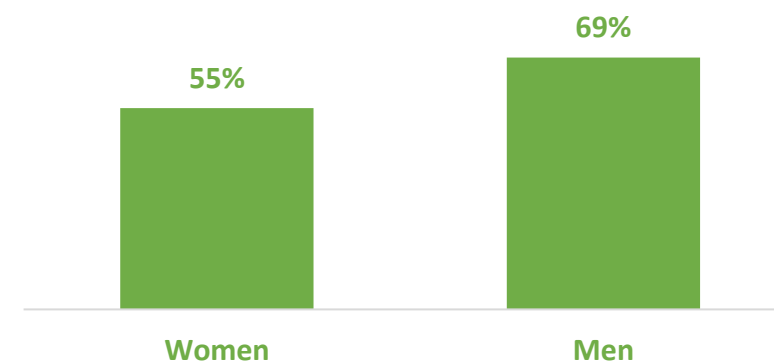


How to differentiate exit rate of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to the demographic characteristics of these beneficiaries?

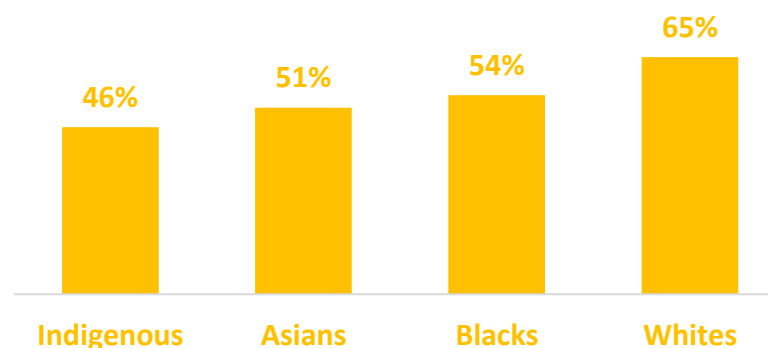
Exit rate of *CadÚnico* by age group in 2005



Exit rate of *CadÚnico* by sex

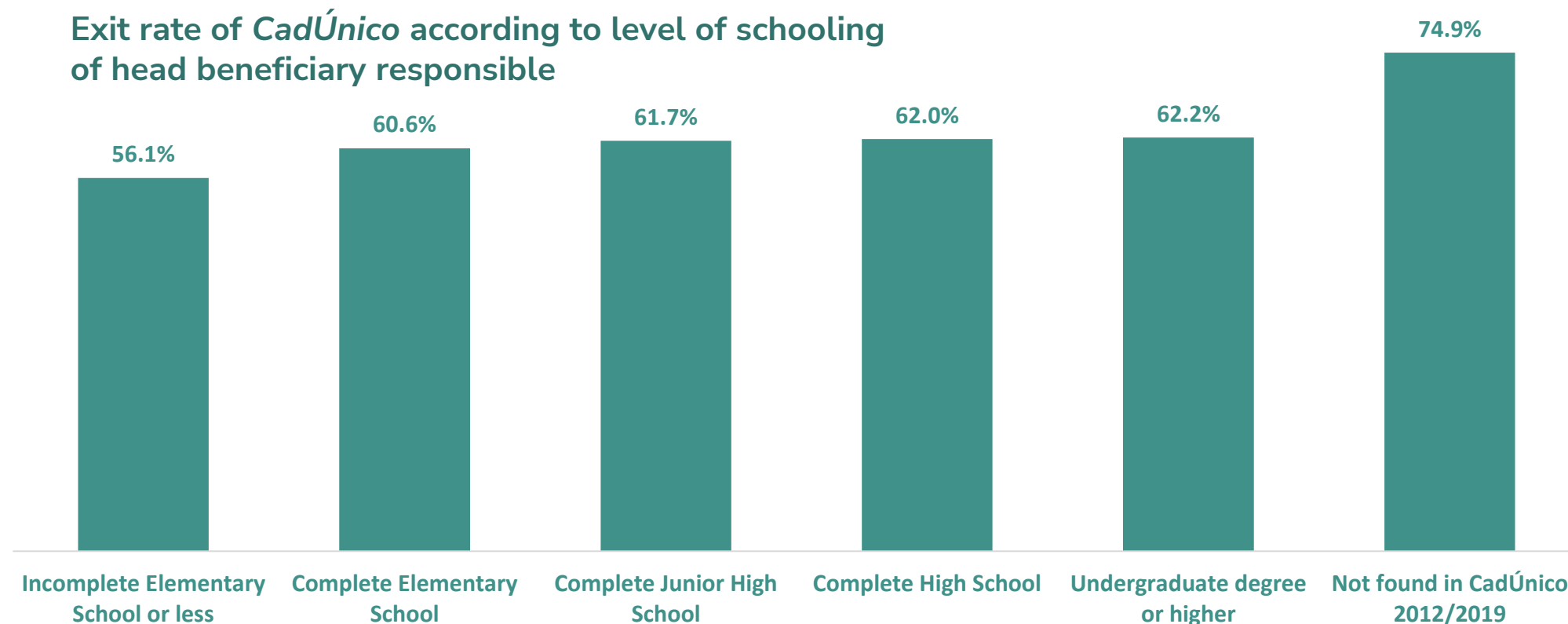


Exit rate of *CadÚnico* by skin color or race



Note: We do not present the exit rate of *CadÚnico* for those with unknown characteristics due to non-declaration or due to lack of information on the Registry.

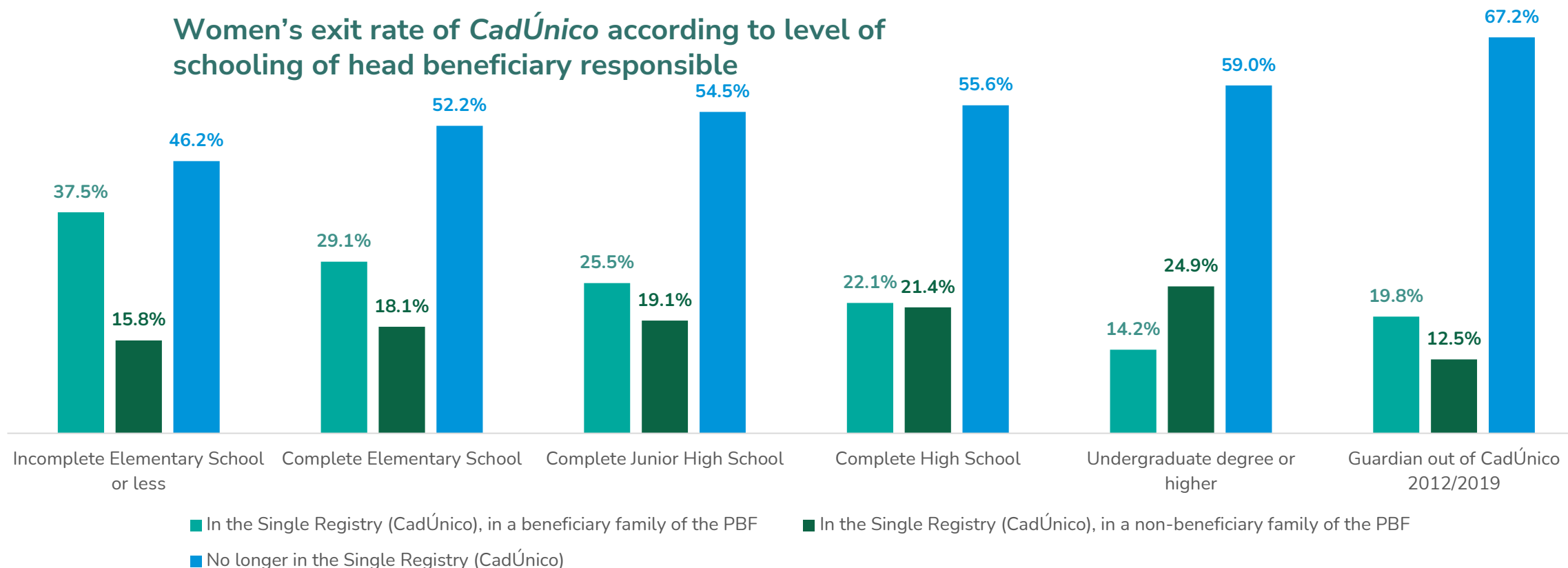
How to differentiate exit rates of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to schooling of person responsible?



Note: The results of schooling were extracted from earlier information declared after migration to the registration system which occurred in 2012. It was not possible to obtain this information for 33% of beneficiaries aged 7 to 16.

How to differentiate exit rates of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to schooling of person responsible, by gender?

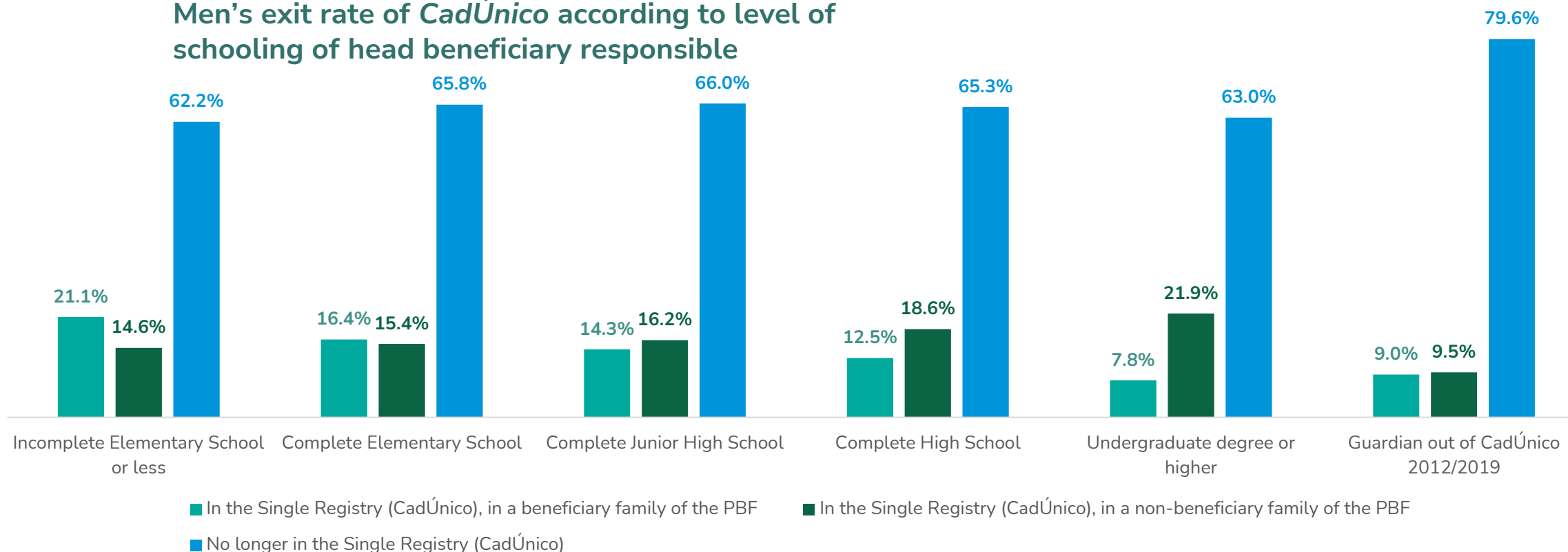
Women's exit rate of *CadÚnico* according to level of schooling of head beneficiary responsible



Note: The results of schooling were extracted from earlier information declared after migration to the registration system which occurred in 2012. It was not possible to obtain this information for 33% of beneficiaries aged 7 to 16.

How to differentiate exit rates of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to schooling of person responsible, by gender?

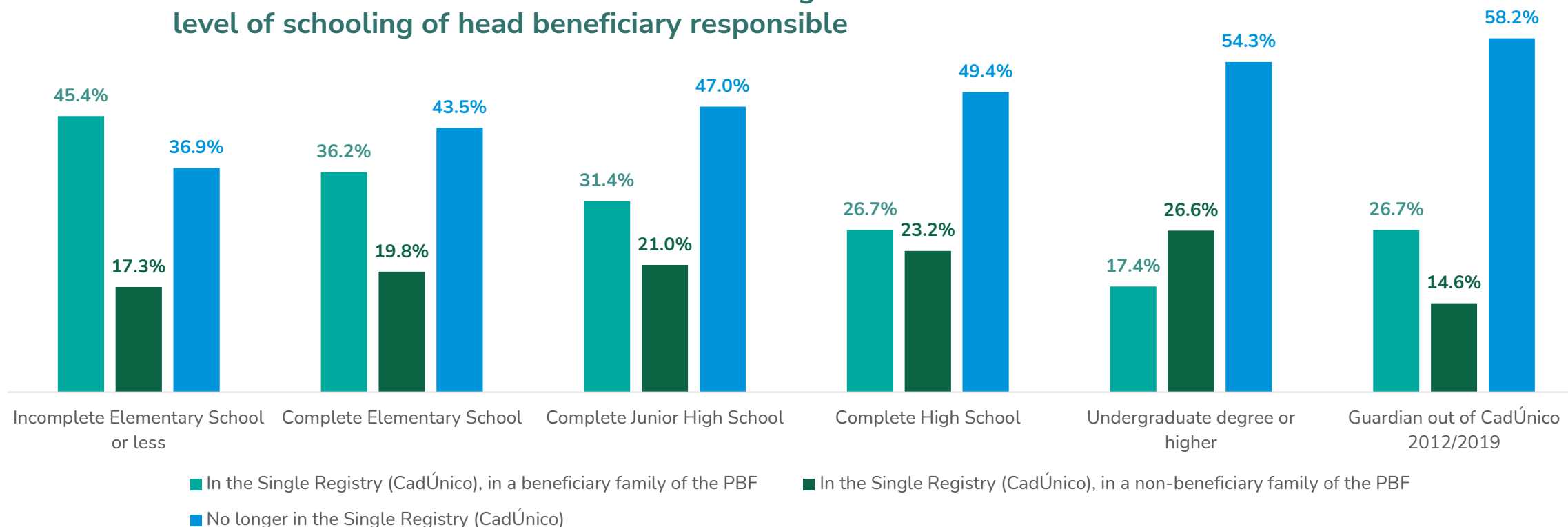
Men's exit rate of *CadÚnico* according to level of schooling of head beneficiary responsible



Note: The results of schooling were extracted from earlier information declared after migration to the registration system which occurred in 2012. It was not possible to obtain this information for 33% of beneficiaries aged 7 to 16.

How to differentiate exit rates of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to schooling of person responsible, by gender and skin color or race?

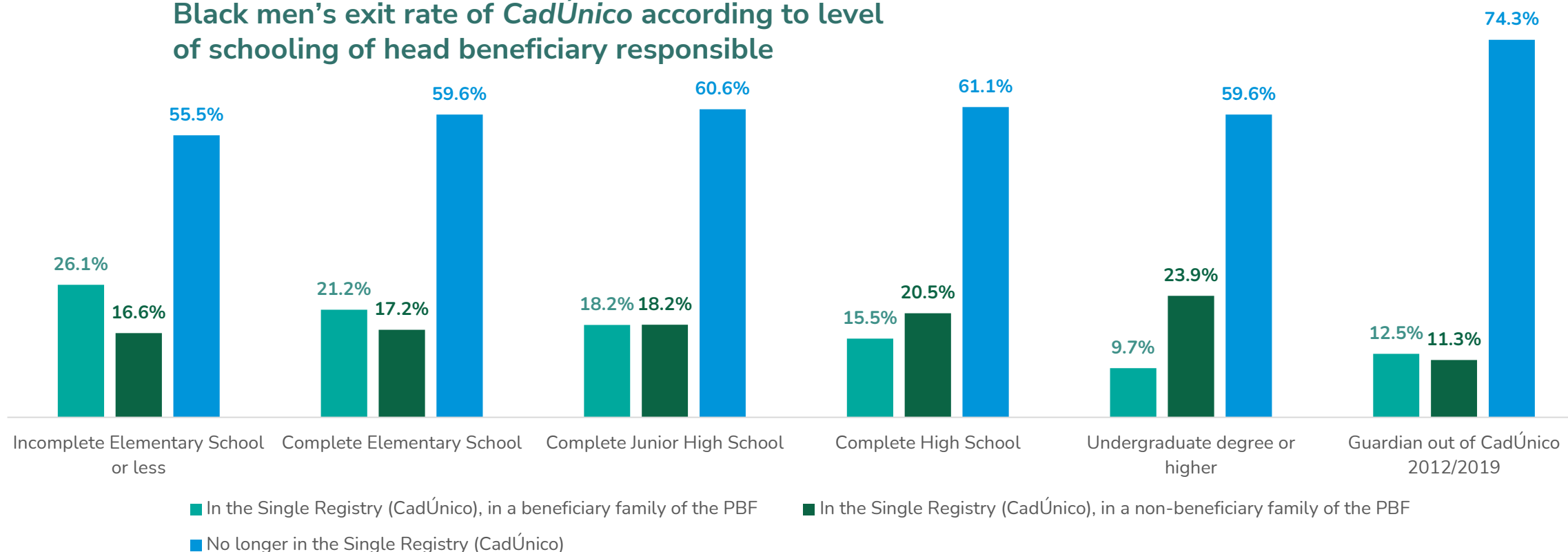
Black women's exit rate of *CadÚnico* according to level of schooling of head beneficiary responsible



Note: The results of schooling were extracted from earlier information declared after migration to the registration system which occurred in 2012. It was not possible to obtain this information for 33% of beneficiaries aged 7 to 16.

How to differentiate exit rates of *CadÚnico* of 7-to-16-year-old dependents in 2005, according to schooling of person responsible, by gender and skin color or race?

Black men's exit rate of *CadÚnico* according to level of schooling of head beneficiary responsible



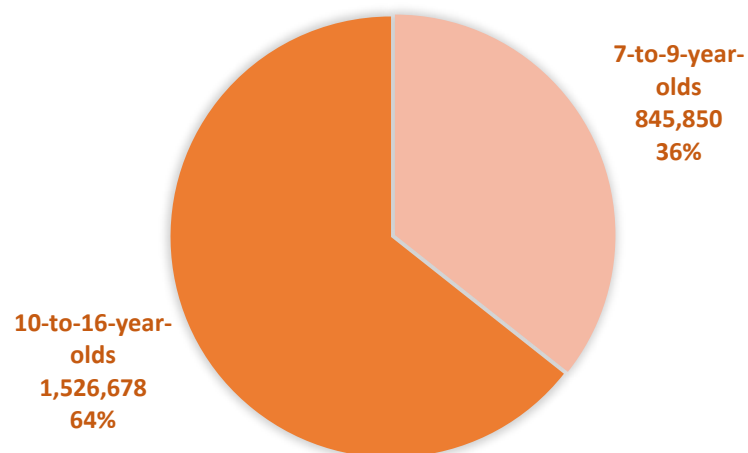
Note: The results of schooling were extracted from earlier information declared after migration to the registration system which occurred in 2012. It was not possible to obtain this information for 33% of beneficiaries aged 7 to 16.

Relationship between *CadÚnico* exit rate and level of education of guardians

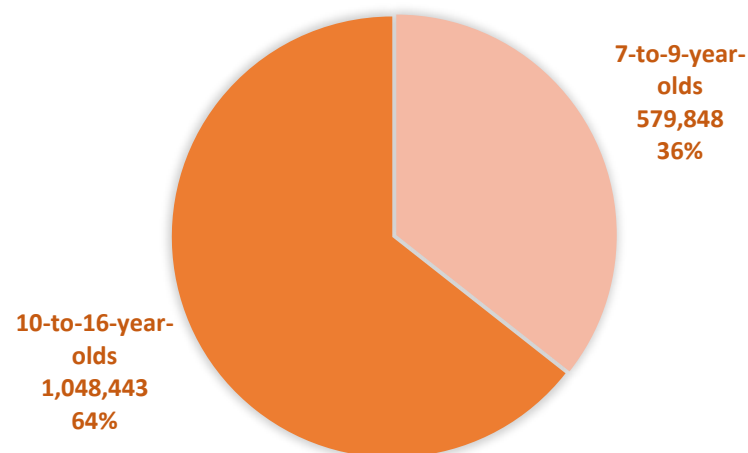
- The question remains: what is the role of the parents' schooling for the child's exit from the Registry as an adult?
- In particular, what explains the difference in this relationship between men and women?
- Hypothesis: insertion of men in the labor market, however small, is enough to get them out of poverty. On the other hand, less insertion of women – particularly the less educated (by the persistence in educational level) – deprives them even of the little income that would take them out of poverty.

How different are the 2005 PBF dependent beneficiaries compared to the situation of those in 2019, by age group?

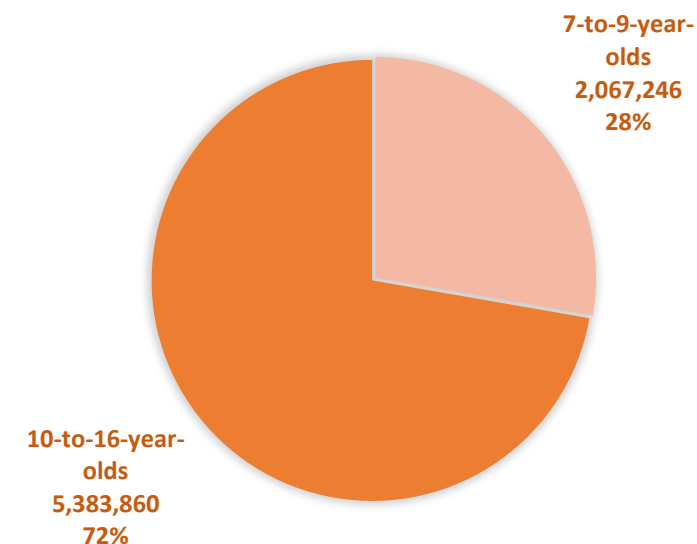
Remain beneficiaries of PBF



Remain in the Registry but is not a PBF beneficiary



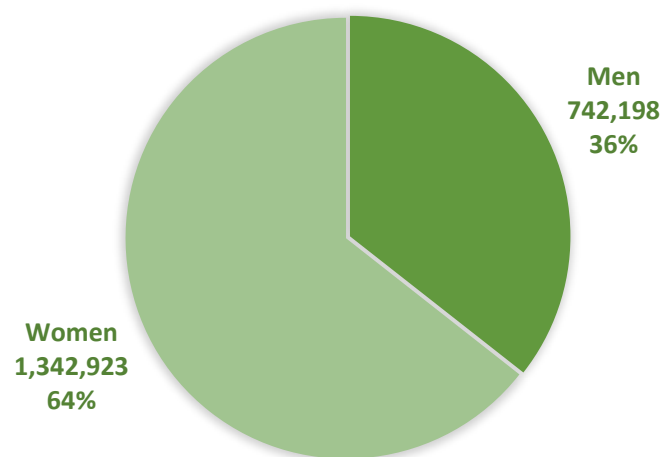
Left the Registry



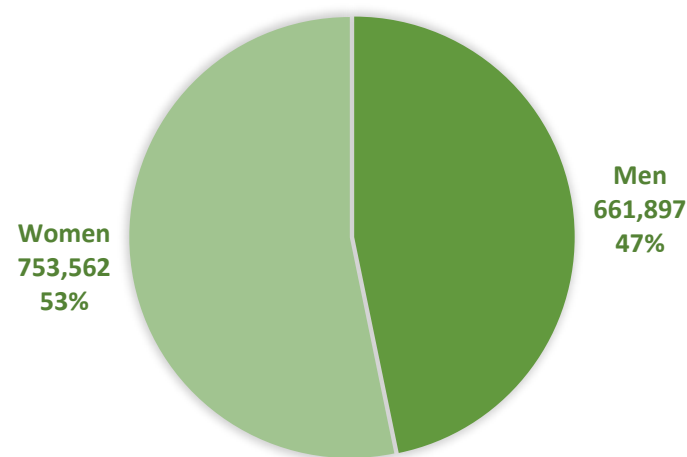
Age group	Registered in a PBF beneficiary family	% in relation to 2005 dependent beneficiaries	Registered in a PBF non-beneficiary family	% in relation to 2005 dependent beneficiaries	No longer in the Single Registry (CadÚnico)	% in relation to 2005 dependent beneficiaries
7-to-9-year-olds	845,850	23.9%	579,848	16.4%	2,067,246	58.5%
10-to-16-year-olds	1,526,678	18.9%	1,048,443	13.0%	5,383,860	66.5%
Total	2,372,528	20.4%	1,628,291	14.0%	7,451,105	64.1%

How different are the 2005 PBF dependent beneficiaries compared to the situation of those in 2019, by sex?

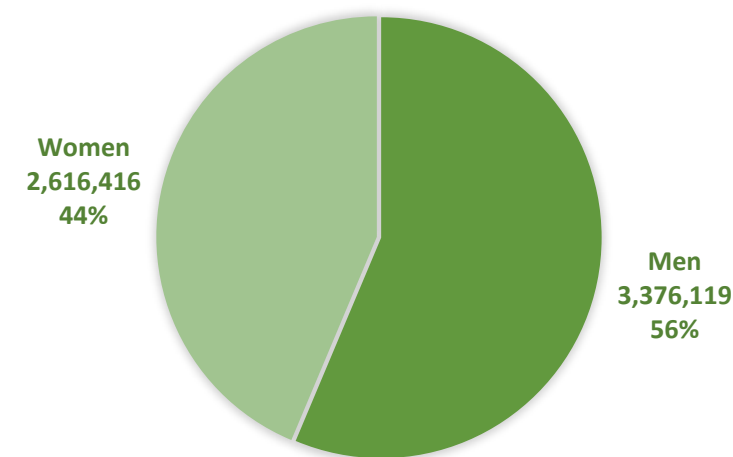
Remain beneficiaries of PBF



Remain in the Registry but is not a PBF beneficiary

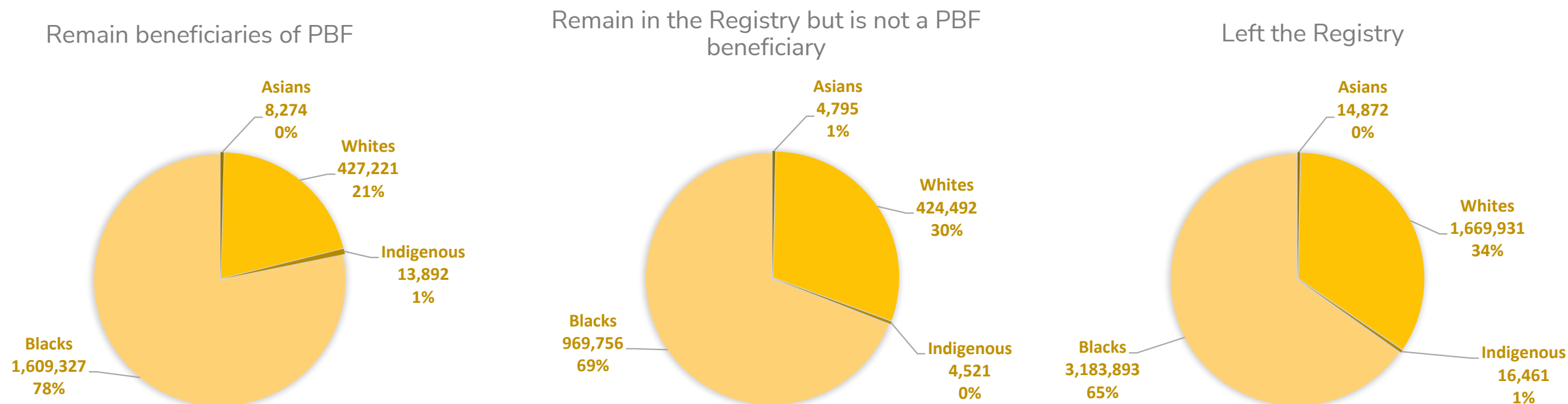


Left the Registry



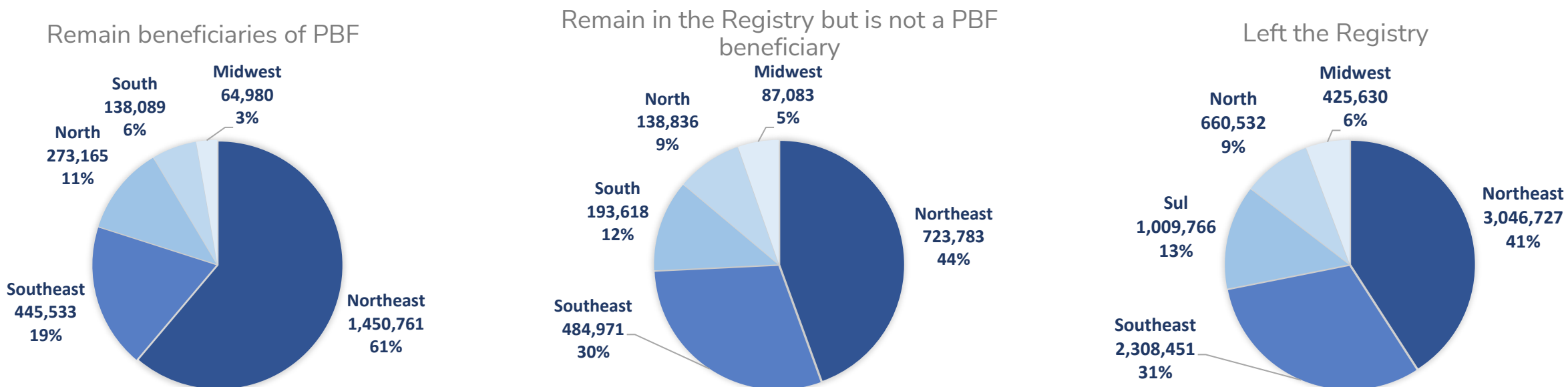
Age group	Registered in a PBF beneficiary family	% in relation to 2005 dependent beneficiaries	Registered in a PBF non-beneficiary family	% in relation to 2005 dependent beneficiaries	No longer in the Single Registry (CadÚnico)	% in relation to 2005 dependent beneficiaries
Men	742,198	15.2%	661,897	13.5%	3,376,119	69.0%
Women	1,342,923	28.3%	753,562	15.9%	2,616,416	55.2%
Total	2,085,121	21.6%	1,415,459	14.7%	5,992,535	62.2%

How different are the 2005 PBF dependent beneficiaries compared to the situation of those in 2019, by skin color or race?



Age group	Registered in a PBF beneficiary family	% in relation to 2005 dependent beneficiaries	Registered in a PBF non-beneficiary family	% in relation to 2005 dependent beneficiaries	No longer in the Single Registry (CadÚnico)	% in relation to 2005 dependent beneficiaries
Asians	8,274	28.4%	4,795	16.5%	14,872	51.1%
Indigenous	13,892	38.6%	4,521	12.6%	16,461	45.7%
Whites	427,221	16.6%	424,492	16.5%	1,669,931	65.0%
Blacks	1,609,327	27.5%	969,756	16.6%	3,183,893	54.5%
Total	2,058,714	24.3%	1,403,564	16.6%	4,885,156	57.6%

How different are the 2005 PBF dependent beneficiaries compared to the situation of those in 2019, by region of residence in 2005?

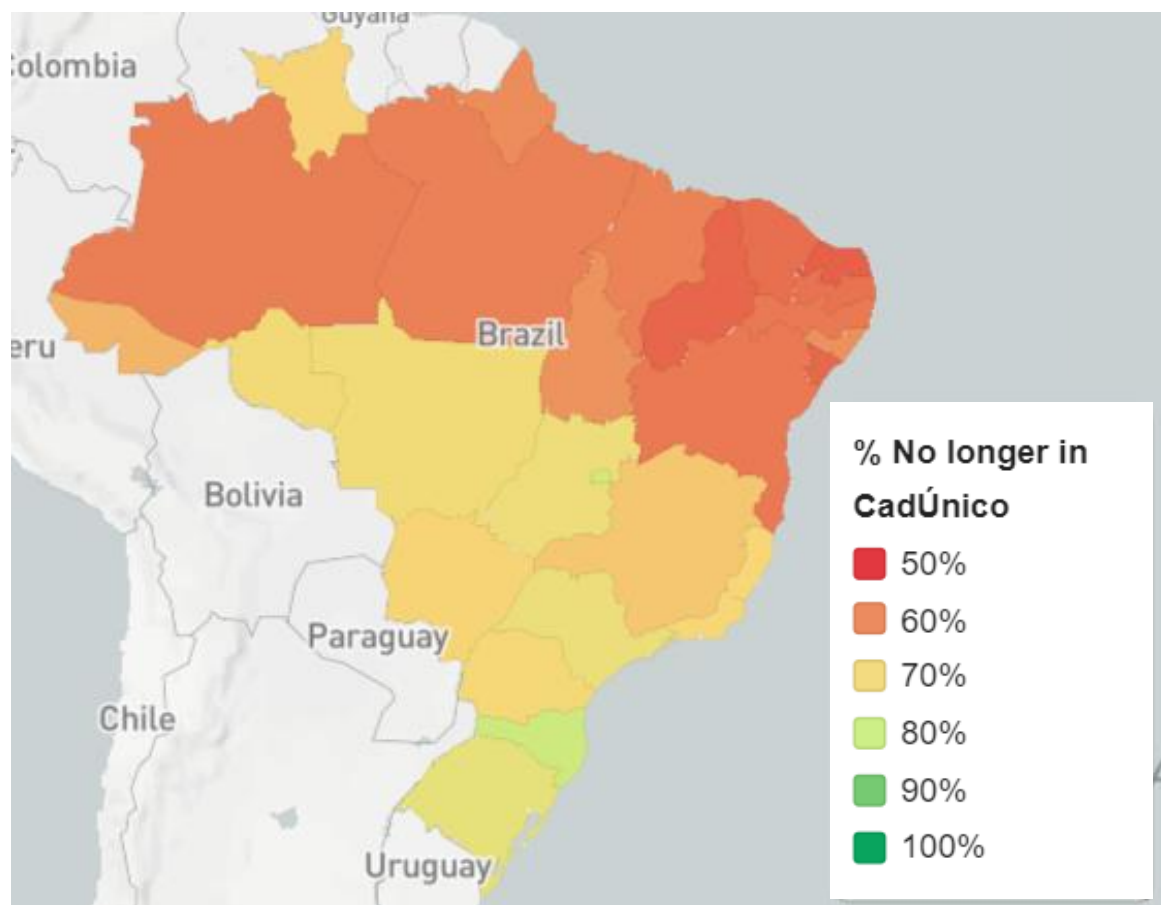


Age group	Registered in a PBF beneficiary family	% in relation to 2005 dependent beneficiaries	Registered in a PBF non-beneficiary family	% in relation to 2005 dependent beneficiaries	No longer in the Single Registry (CadÚnico)	% in relation to 2005 dependent beneficiaries
Midwest	64,980	11.0%	87,083	14.8%	425,630	72.2%
South	138,089	10.1%	193,618	14.2%	1,009,766	73.8%
North	273,165	25.1%	138,836	12.8%	660,532	60.8%
Southeast	445,533	13.5%	484,971	14.7%	2,308,451	70.1%
Northeast	1,450,761	27.4%	723,783	13.7%	3,046,727	57.6%
Total	2,372,528	20.4%	1,628,291	14.0%	7,451,105	64.1%

Exit from *CadÚnico* and Territory

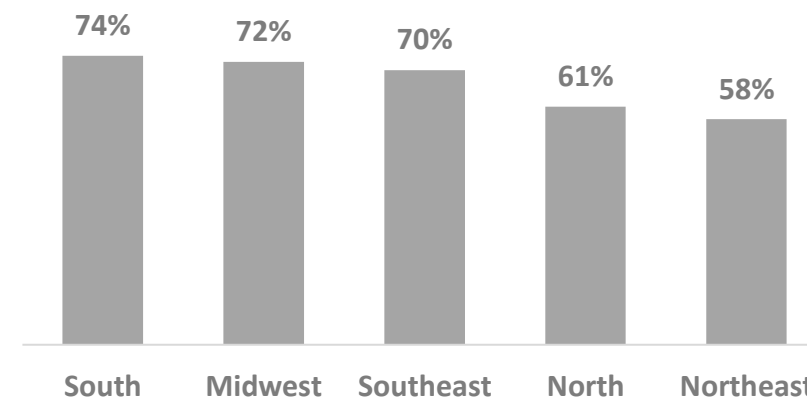
How are territories of origin differentiated by the exit rate from *CadÚnico*?

Based on the UF of residence in 2005

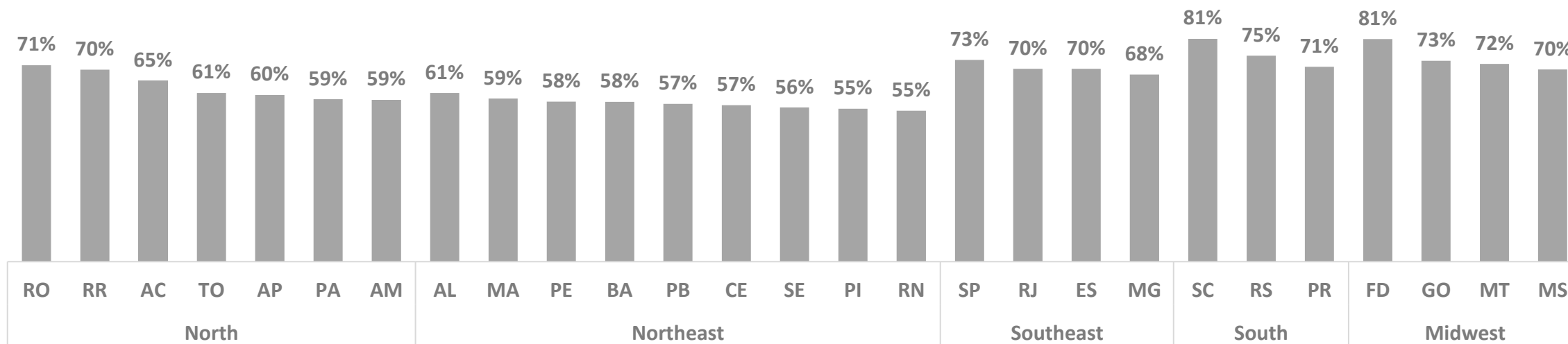


How are territories of origin differentiated by the exit rate from *CadÚnico*?

Exit rate from *CadÚnico* of 7-to-16-year-old dependent beneficiaries, by region of origin in 2005

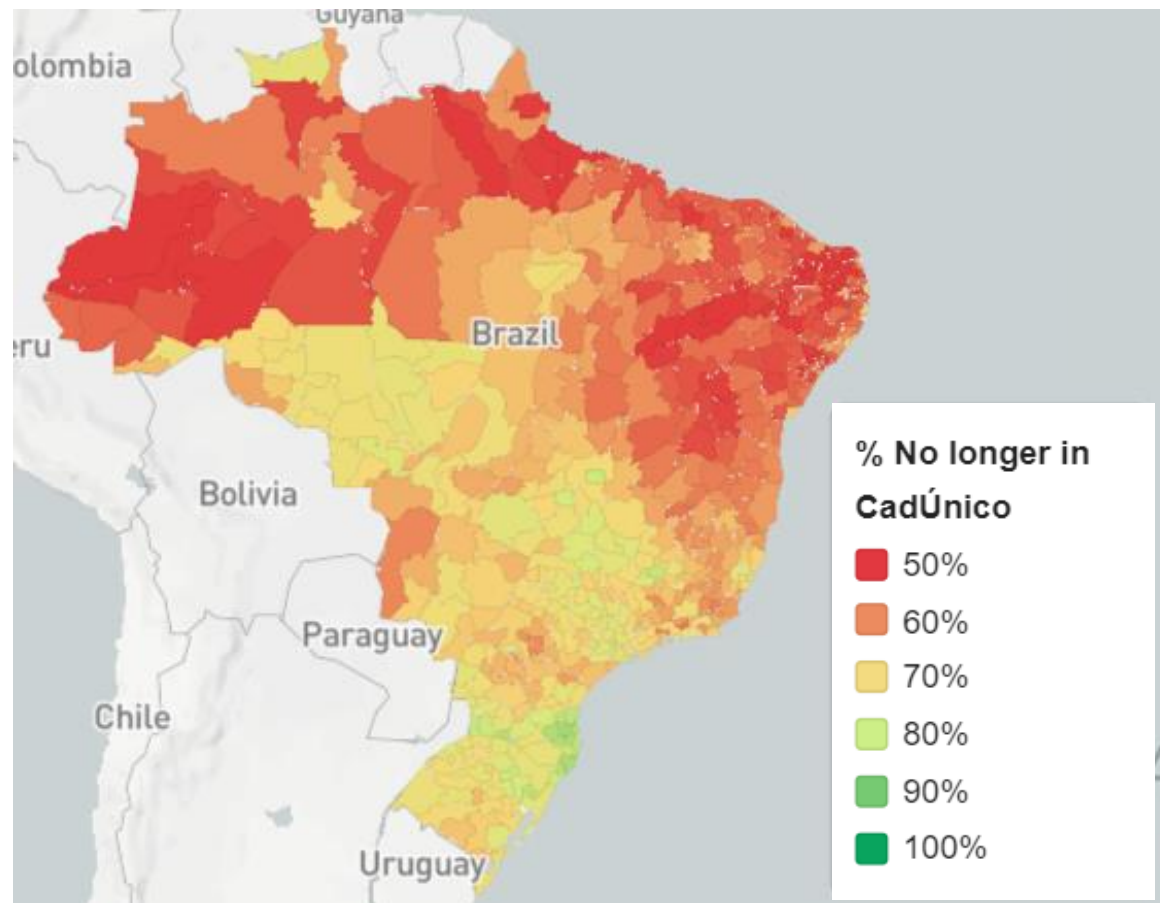


Exit rate from *CadÚnico* of 7-to-16-year-old dependent beneficiaries, by UF of origin in 2005



How are territories of origin differentiated by the exit rate from *CadÚnico*?

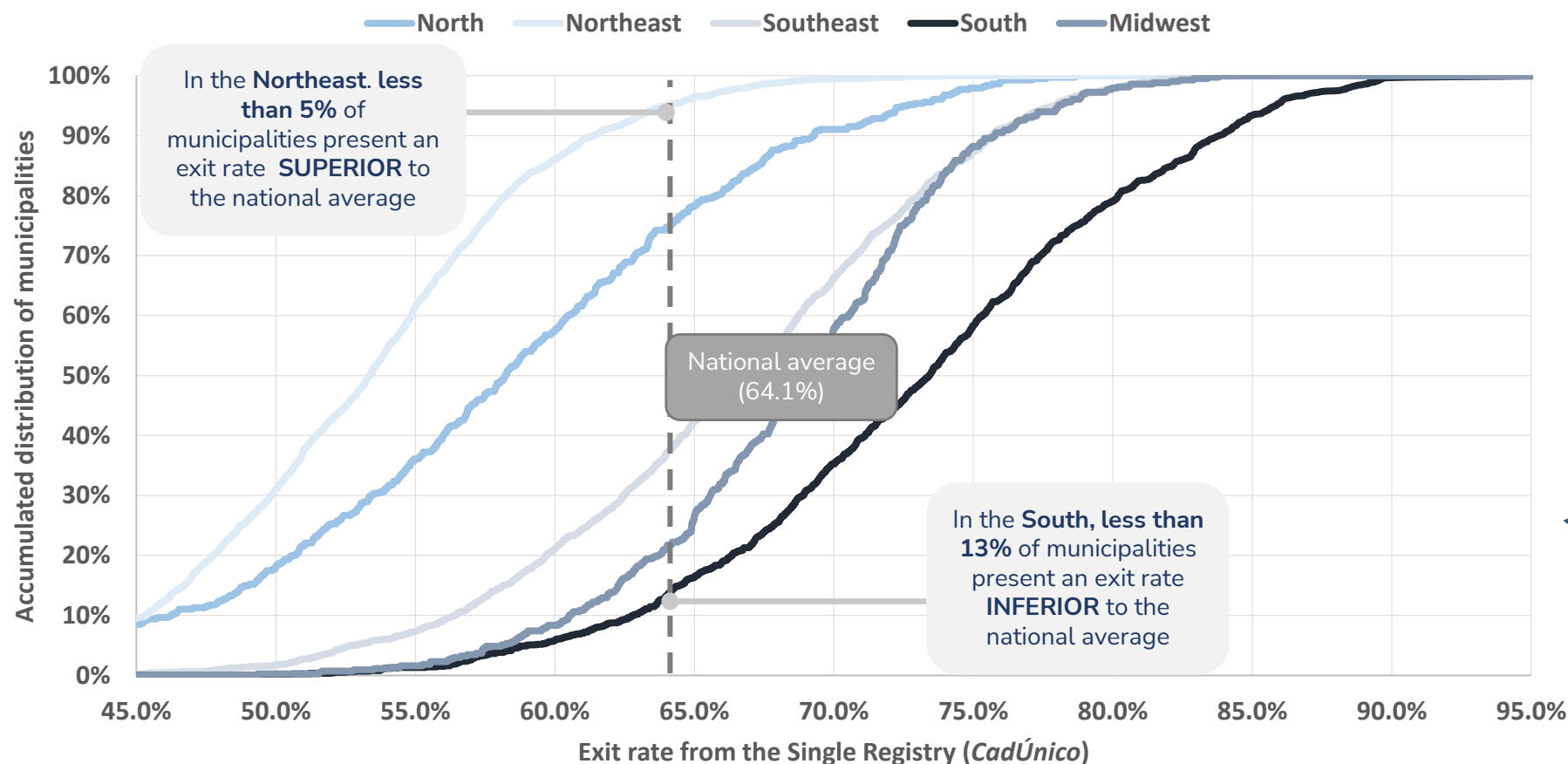
Based on the micro-region of residence in 2005



How are territories of origin differentiated by the exit rate from *CadÚnico*?

Based on the distribution of municipalities by region of residence in 2005

Distribution of municipalities based on the exit rate from *CadÚnico*



Percentage of municipalities with exit rates from *CadÚnico* above the national average

Northeast	5%
North	25%
Southeast	63%
Midwest	78%
South	86%

Municipalities with less than 100 7-to-16-year-old dependent beneficiaries in 2005 were not considered so that results would not suffer distortions by the statistics of these municipalities, as well as to guarantee greater robustness in the data analysis.

How are territories of origin differentiated by the exit rate from *CadÚnico*?

Order	North		Northeast		Southeast		South		Midwest	
	Municipality	Rate	Municipality	Rate	Municipality	Rate	Municipality	Rate	Municipality	Rate
Municipalities with the highest <i>CadÚnico</i> exit rates, per great region										
The Highest	RO - Pimenta Bueno	78.7%	AL - Arapiraca	73.9%	MG - Araújos	86.0%	RS - Tupandi	95.7%	MS - Itaporã	83.8%
The 2nd Highest	PA - Parauapebas	77.6%	PB - Santa Rita	73.8%	MG - Divinópolis	84.4%	SC - Rio Fortuna	93.7%	GO - Catalão	83.4%
The 3rd Highest	RO - Cabixi	77.1%	PE - Jaboatão dos Guararapes	72.5%	MG - Ouro Fino	83.6%	RS - Nova Boa Vista	91.5%	GO - Davinópolis	82.9%
The 4th Highest	RR - Boa Vista	76.0%	PE - Recife	72.5%	MG - Carmo do Cajuru	83.5%	SC - Dona Emma	90.6%	GO - Goiânia	82.4%
The 5th Highest	RO - Chupinguaia	76.0%	MA - Água Doce do Maranhão	71.5%	SP - Jundiá	82.9%	SC - Pouso Redondo	89.8%	MS - Ivinhema	82.1%
Municipalities with the lowest <i>CadÚnico</i> exit rates, per great region										
The Lowest	PA - Limoeiro do Ajuru	28.9%	MA - Milagres do Maranhão	28.0%	MG - Santana do Jacaré	42.7%	PR - Rancho Alegre	50.1%	MT - Pontal do Araguaia	49.3%
The 2nd Lowest	AM - Lábrea	31.3%	PI - Bela Vista do Piauí	30.7%	MG - São João do Manhuaçu	44.1%	PR - Sertaneja	50.4%	GO - Simolândia	51.5%
The 3rd Lowest	PA - Faro	31.8%	PI - Cocal dos Alves	32.0%	MG - Pedra Dourada	44.6%	RS - Dona Francisca	50.6%	GO - Damolândia	51.6%
The 4th Lowest	PA - Muaná	34.2%	RN - São José do Seridó	34.1%	MG - Imbé de Minas	44.6%	RS - São João do Polêsine	51.2%	GO - Campinaçu	52.8%
The 5th Lowest	AM - Silves	34.3%	RN - Jundiá	35.1%	MG - Curral de Dentro	45.2%	PR - Novo Itacolomi	52.0%	GO - Jesópolis	53.5%

Note: Municipalities with less than 100 7-to-16-year-old dependent beneficiaries in 2005 were not considered so that results would not suffer distortions by the statistics of these municipalities, as well as to guarantee greater robustness in the data analysis.

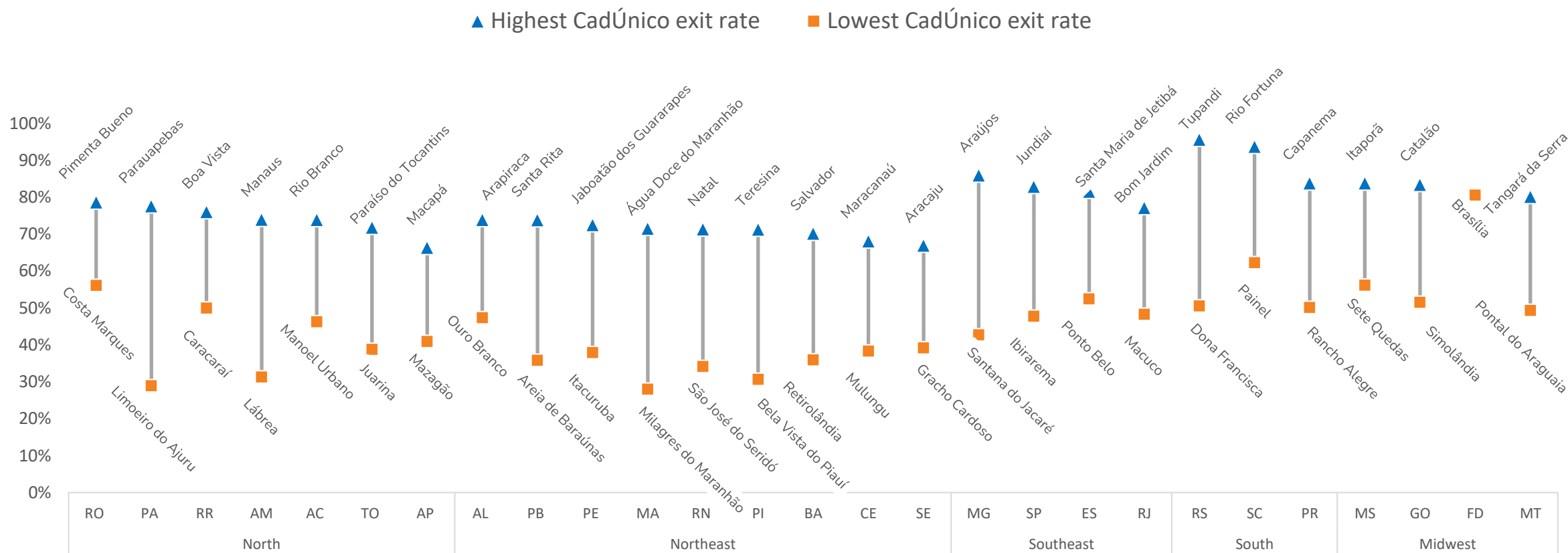
How are territories of origin differentiated by the exit rate from *CadÚnico*?

Order	Up to 20 Thousand inhabitants		> 20 thousand to 50 thousand inhabitants		> 50 thousand to 200 thousand inhabitants		> 200 thousand to 500 thousand inhabitants		> 500 thousand inhabitants	
	Municipality	Rate	Municipality	Rate	Municipality	Rate	Municipality	Rate	Municipality	Rate
Municipalities with the highest <i>CadÚnico</i> exit rates, per size of municipality										
The Highest	RS - Tupandi	95.7%	SC - Timbó	89.2%	SC - Brusque	88.8%	SC - Joinville	84.7%	GO - Goiânia	82.4%
The 2nd Highest	SC - Rio Fortuna	93.7%	SC - Pomerode	88.9%	SC - Içara	86.9%	MG - Divinópolis	84.4%	SP - Ribeirão Preto	81.3%
The 3rd Highest	RS - Nova Boa Vista	91.5%	SC - Braço do Norte	87.4%	SC - Concórdia	86.5%	SP - Jundiaí	82.9%	MG - Uberlândia	80.7%
The 4th Highest	SC - Dona Emma	90.6%	SC - Indaial	87.1%	SC - Tubarão	85.7%	SC - Blumenau	82.4%	DF - Brasília	80.6%
The 5th Highest	SC - Pouso Redondo	89.8%	SC - Laguna	86.0%	SC - Balneário Camboriú	85.1%	SP - Mauá	81.5%	SP - Guarulhos	77.9%
Municipalities with the lowest <i>CadÚnico</i> exit rates, per size of municipality										
The Lowest	MA - Milagres do Maranhão	28.0%	PA - Limoeiro do Ajuru	28.9%	PA - Cametá	41.0%	PA - Santarém	55.3%	CE - Fortaleza	61.6%
The 2nd Lowest	PI - Bela Vista do Piauí	30.7%	AM - Lábrea	31.3%	BA - Conceição do Coité	45.7%	CE - Juazeiro do Norte	57.6%	BA - Feira de Santana	64.1%
The 3rd Lowest	PA - Faro	31.8%	PA - Muaná	34.2%	PA - Abaetetuba	46.4%	BA - Juazeiro	60.4%	MA - São Luís	64.5%
The 4th Lowest	PI - Cocal dos Alves	32.0%	AM - Santo Antônio do Ljá	35.0%	CE - Tianguá	49.3%	PE - Caruaru	62.1%	PA - Belém	66.0%
The 5th Lowest	RN - São José do Seridó	34.1%	PA - Oeiras do Pará	37.7%	RN - Açu	49.3%	RJ - Campos dos Goytacazes	63.7%	PB - João Pessoa	68.4%

Note: Municipalities with less than 100 7-to-16-year-old dependent beneficiaries in 2005 were not considered so that results would not suffer distortions by the statistics of these municipalities, as well as to guarantee greater robustness in the data analysis.

How are territories of origin differentiated by exit rates from *CadÚnico*?

The graph presents municipalities with the highest and the lowest *CadÚnico* exit rates per UF



Note: Municipalities with less than 100 7-to-16-year-old dependent beneficiaries in 2005 were not considered so that results would not suffer distortions by the statistics of these municipalities, as well as to guarantee greater robustness in the data analysis.

Exit from *CadÚnico* and Territory

Maps of municipalities by UF

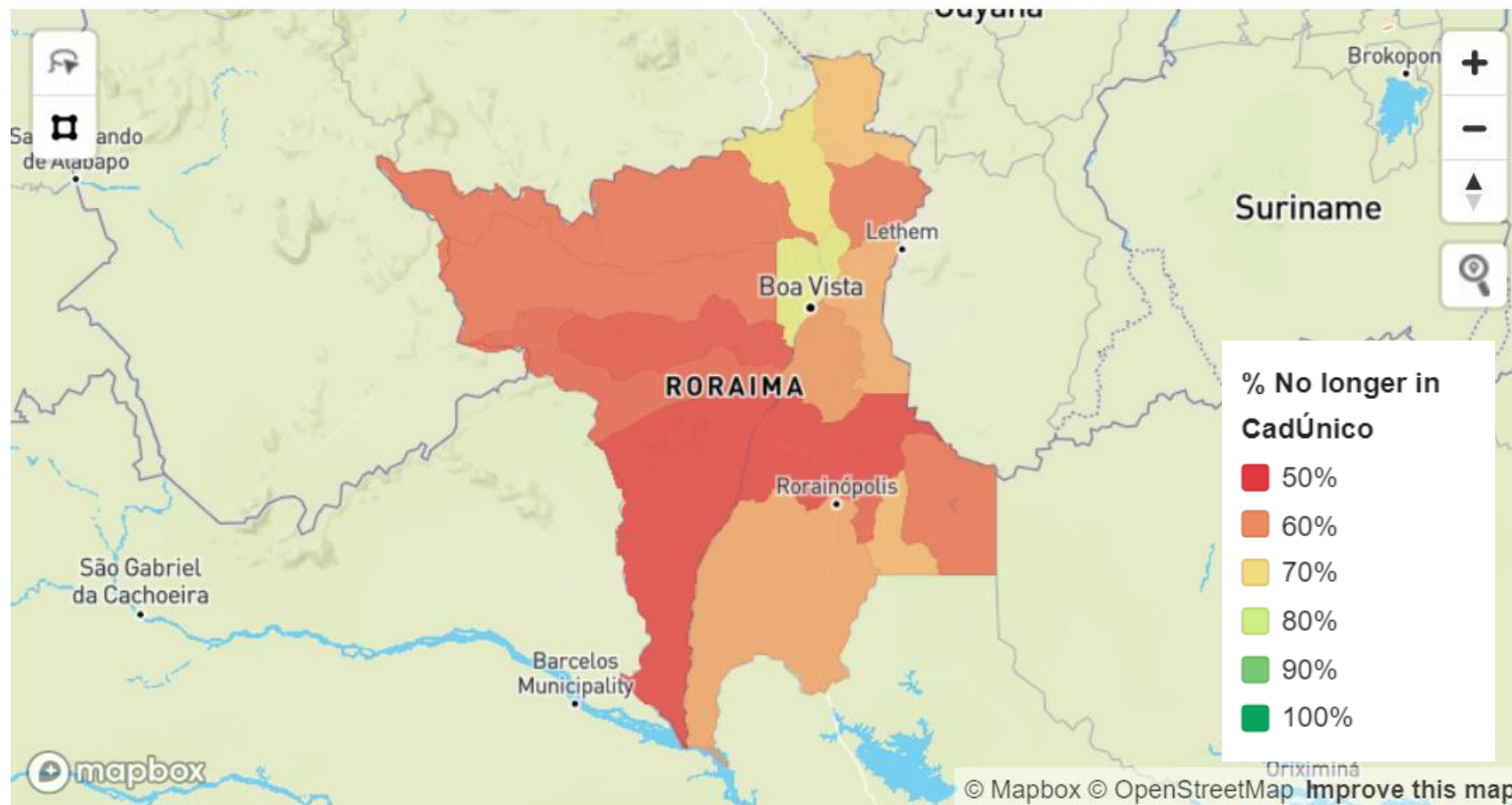
How are territories of origin differentiated by exit rates from *CadÚnico*?

Rondônia (71%)



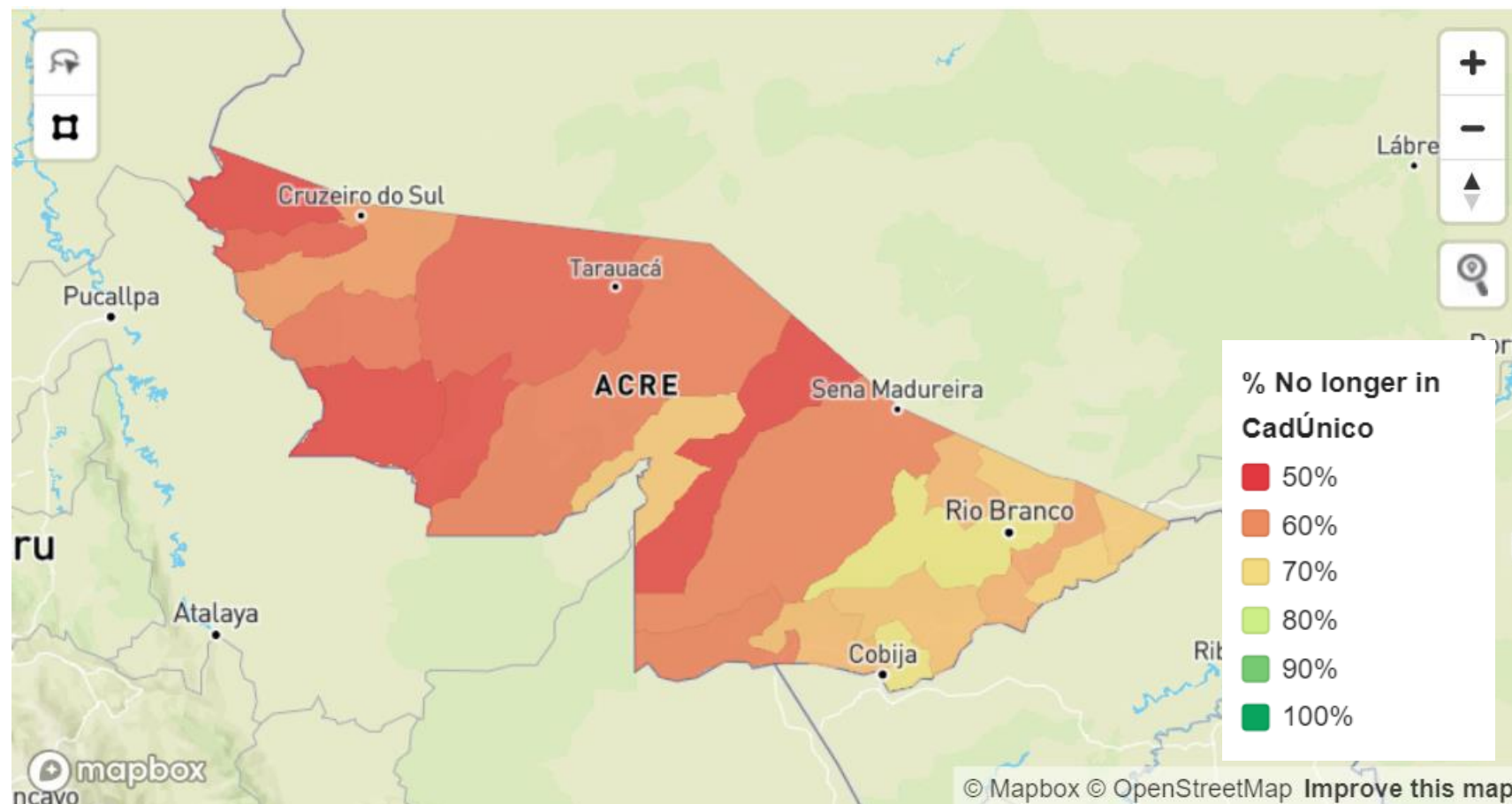
How are territories of origin differentiated by exit rates from *CadÚnico*?

Roraima (70%)



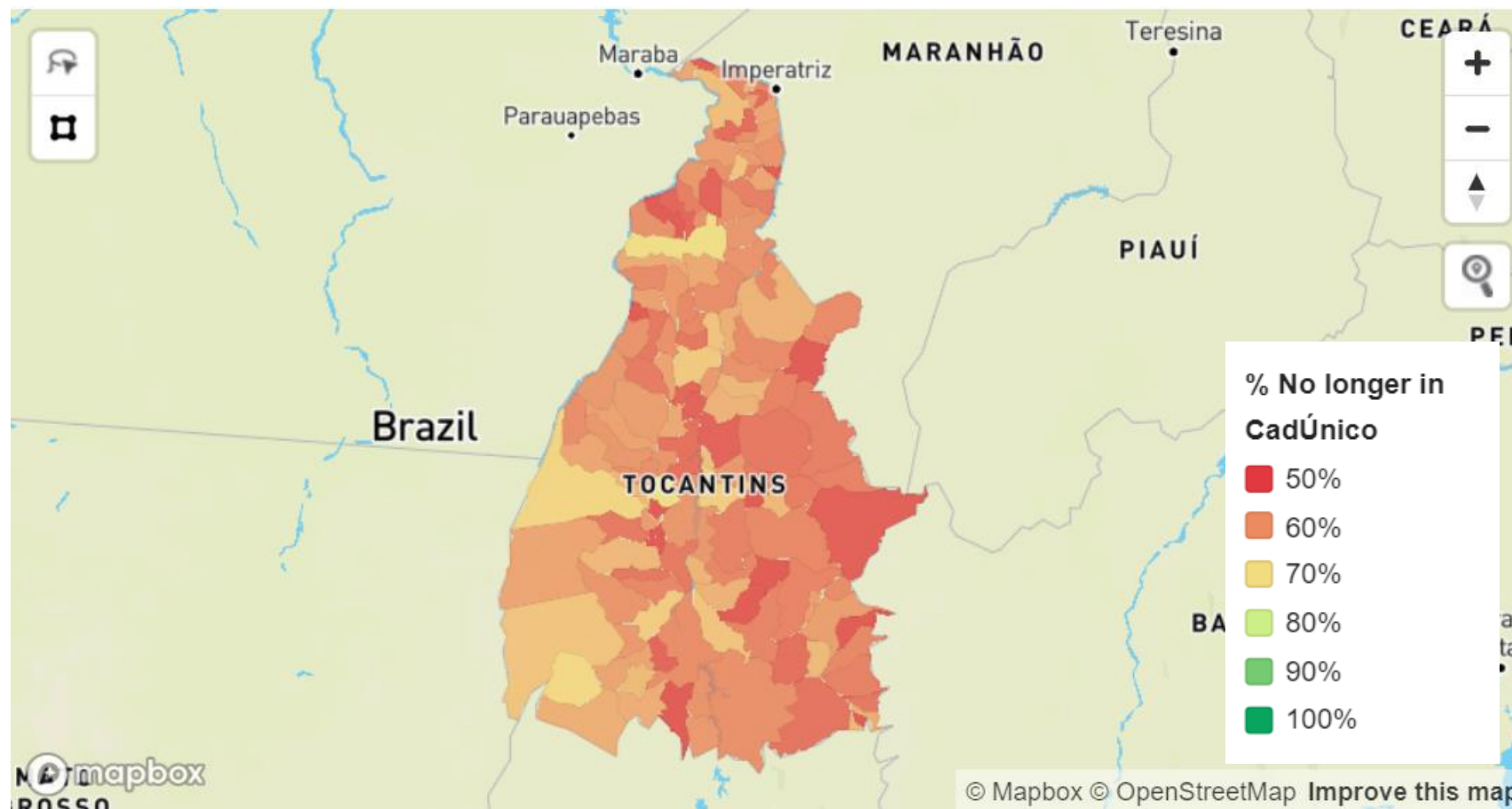
How are territories of origin differentiated by exit rates from *CadÚnico*?

Acre (65%)



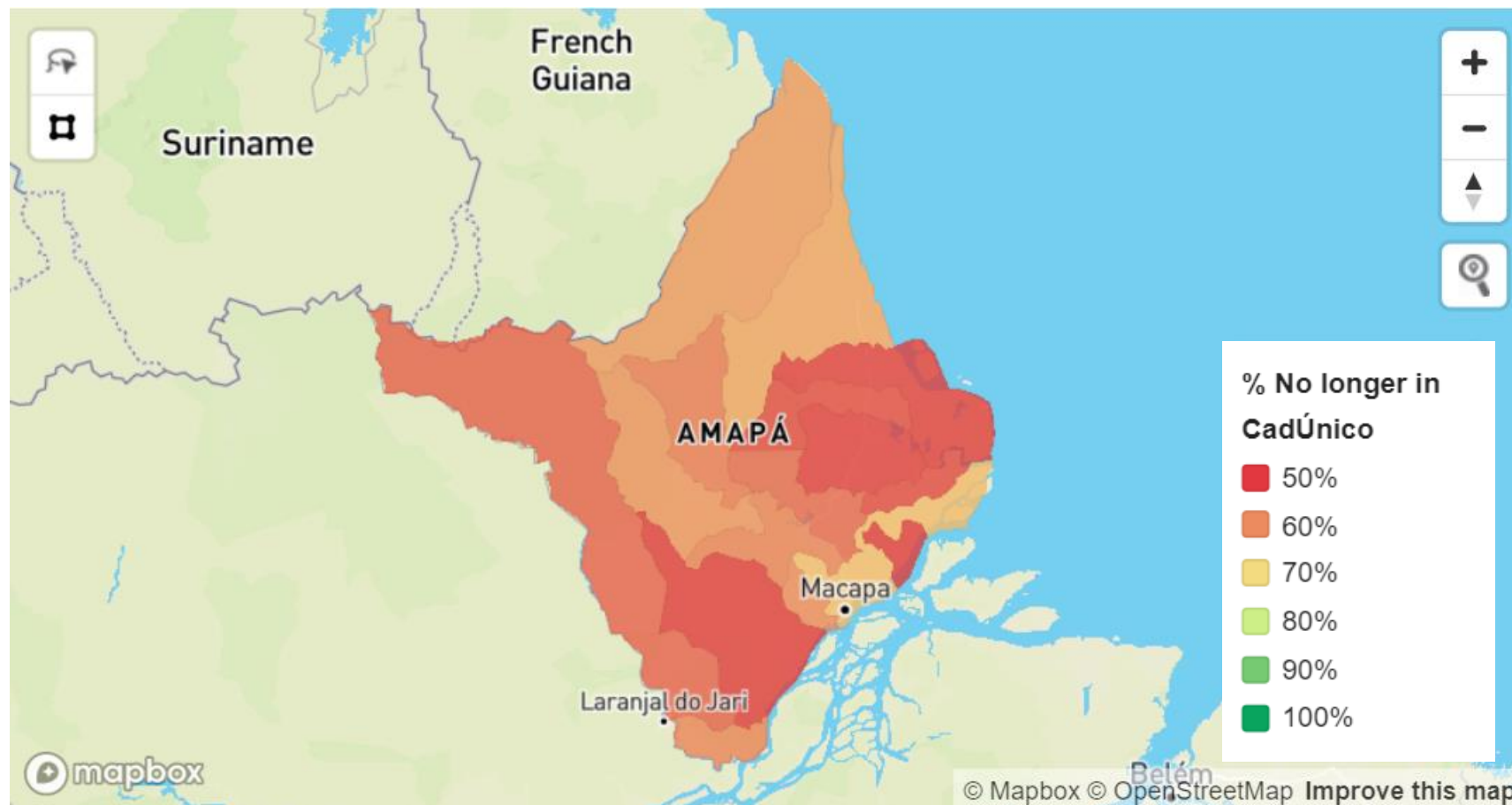
How are territories of origin differentiated by exit rates from *CadÚnico*?

Tocantins (61%)



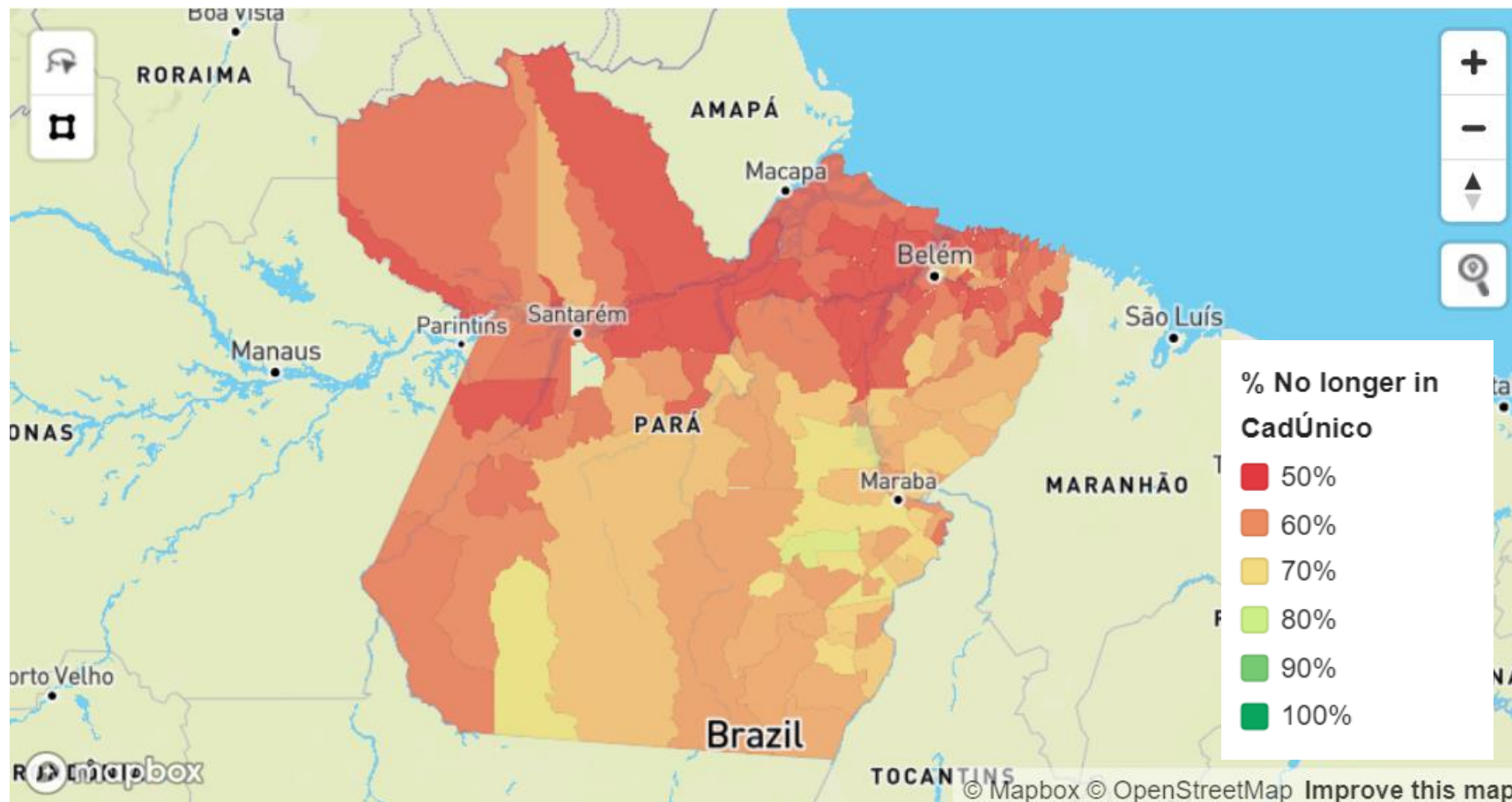
How are territories of origin differentiated by exit rates from *CadÚnico*?

Amapá (60%)



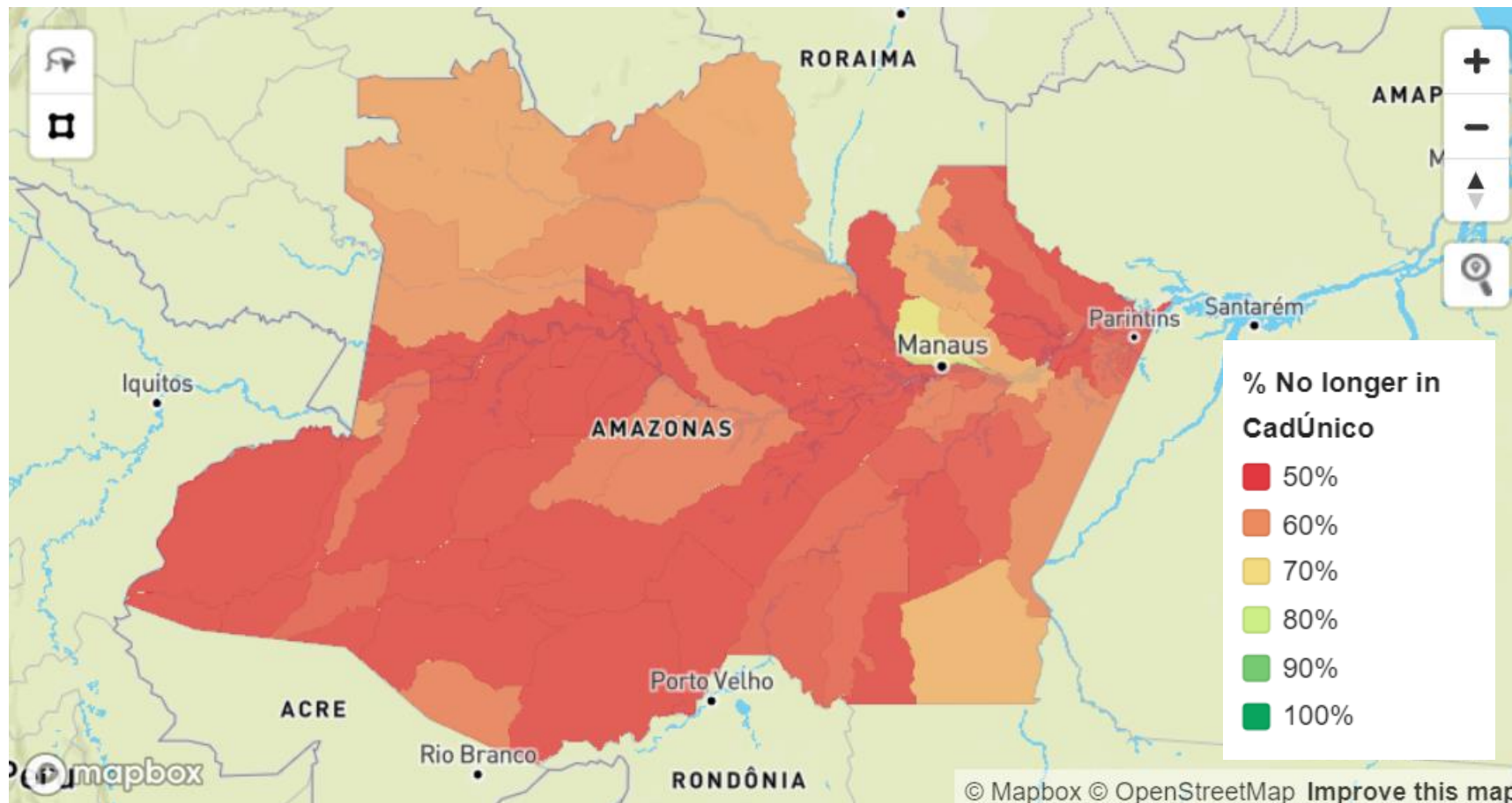
How are territories of origin differentiated by exit rates from *CadÚnico*?

Pará (59%)



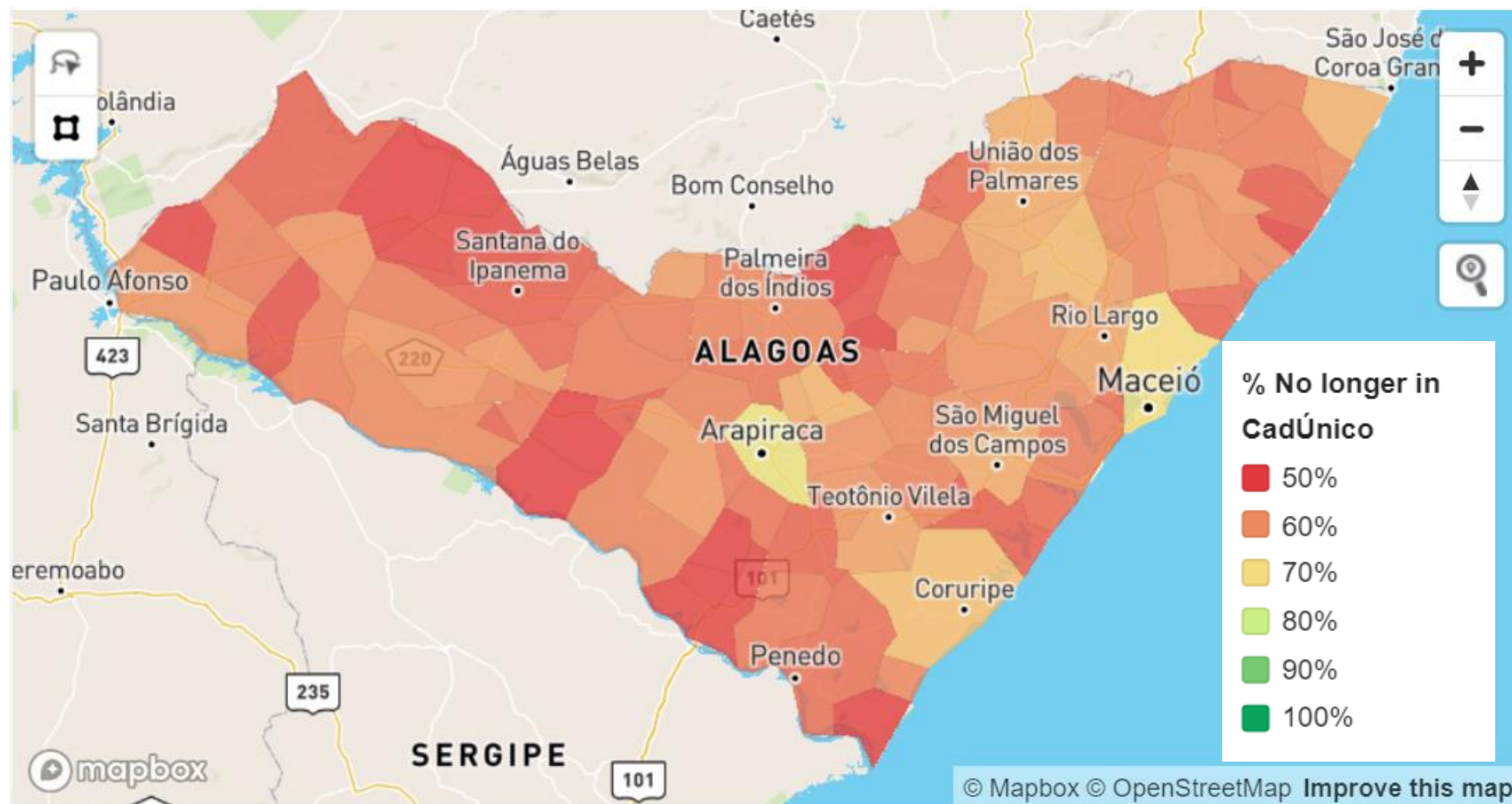
How are territories of origin differentiated by exit rates from *CadÚnico*?

Amazonas (59%)



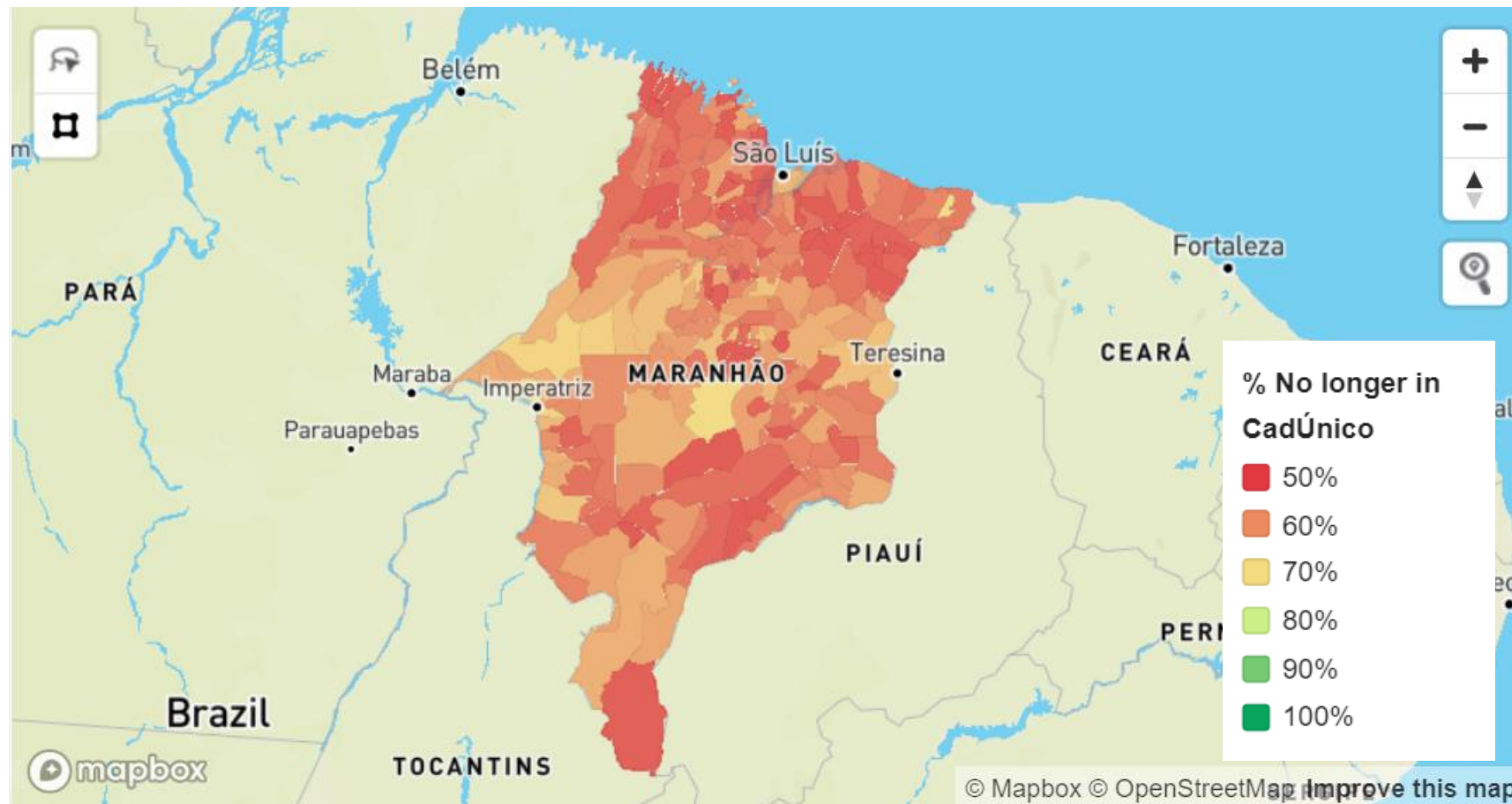
How are territories of origin differentiated by exit rates from *CadÚnico*?

Alagoas (61%)



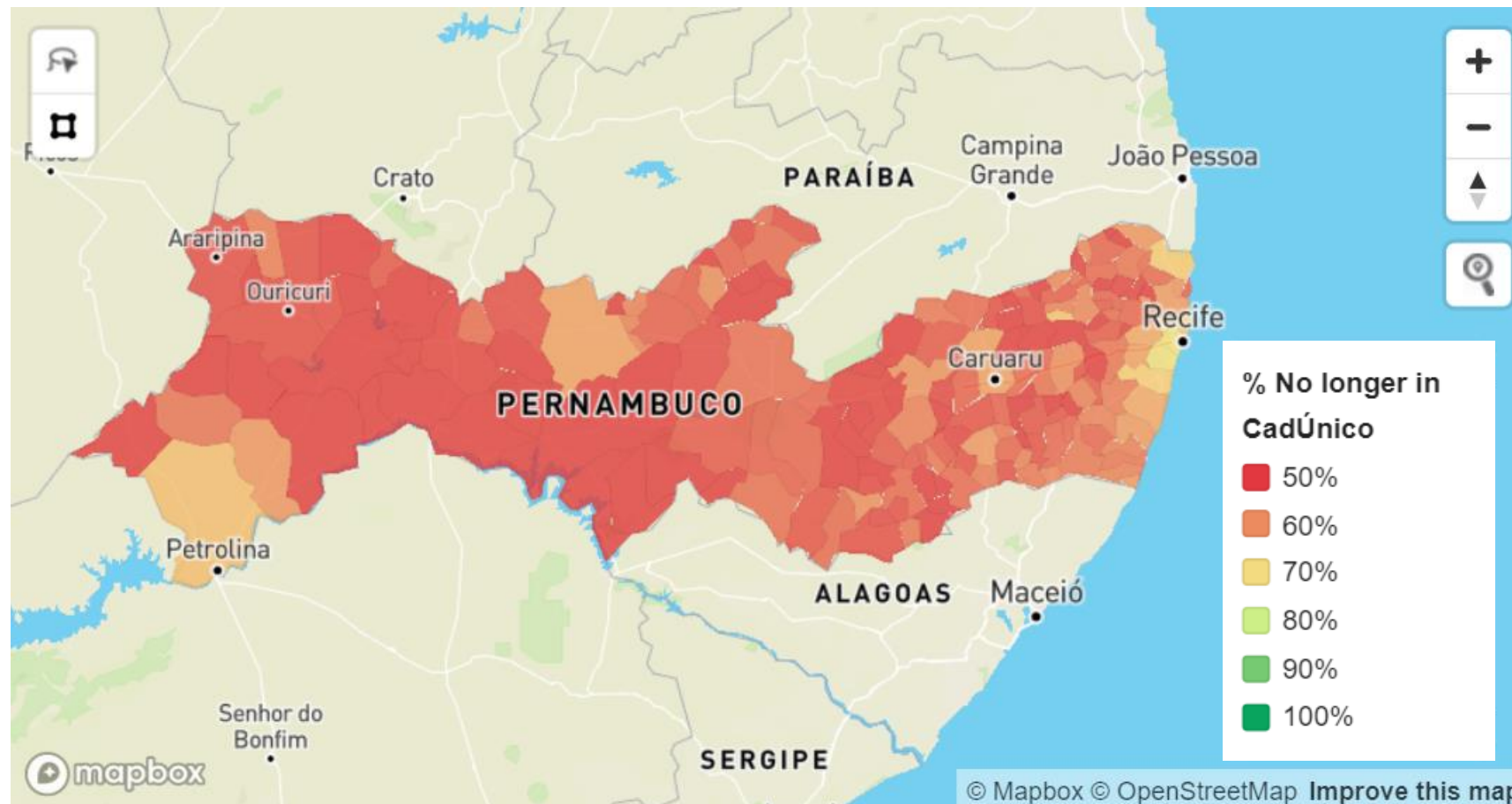
How are territories of origin differentiated by exit rates from *CadÚnico*?

Maranhão (59%)



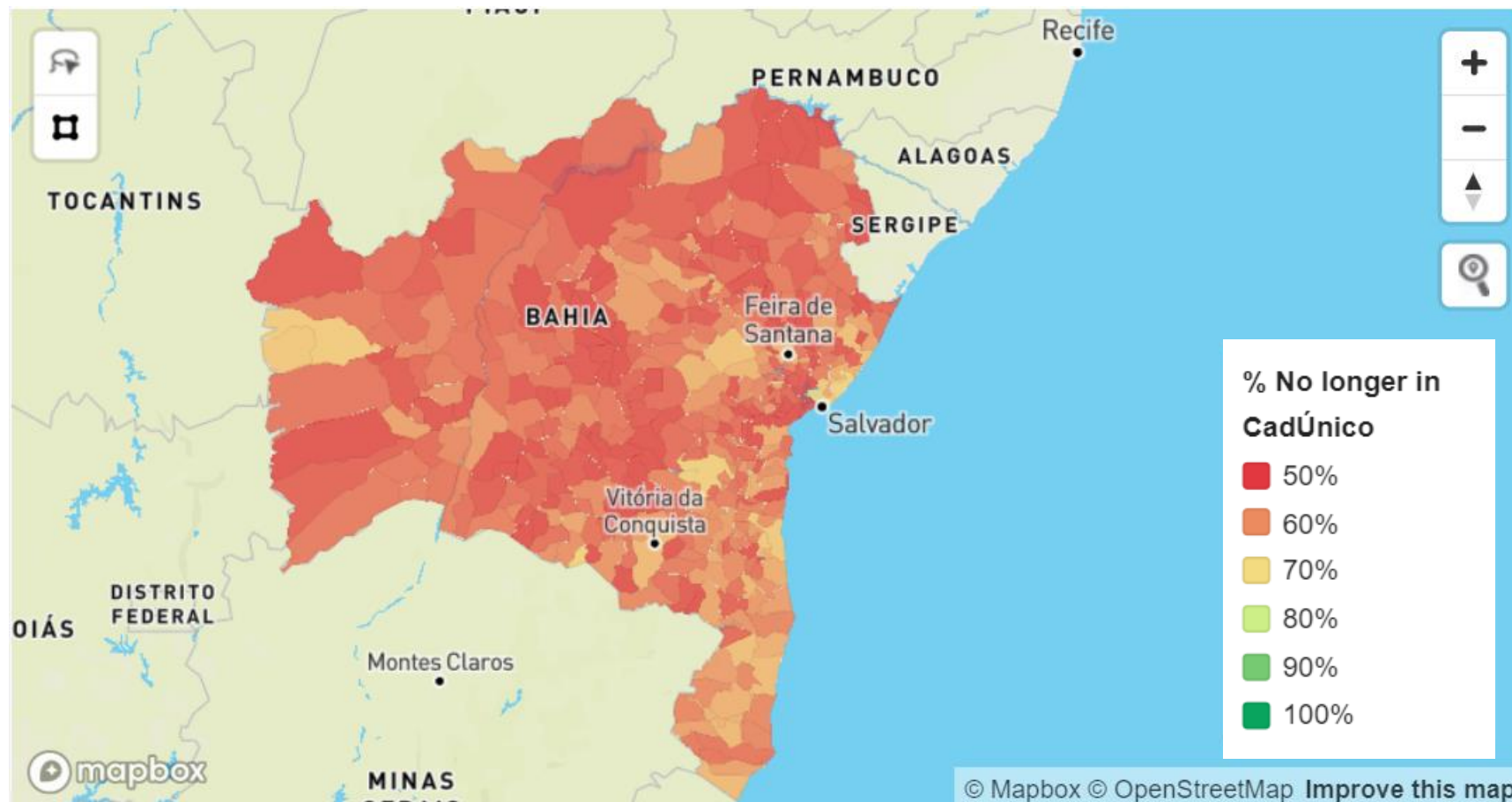
How are territories of origin differentiated by exit rates from *CadÚnico*?

Pernambuco (58%)



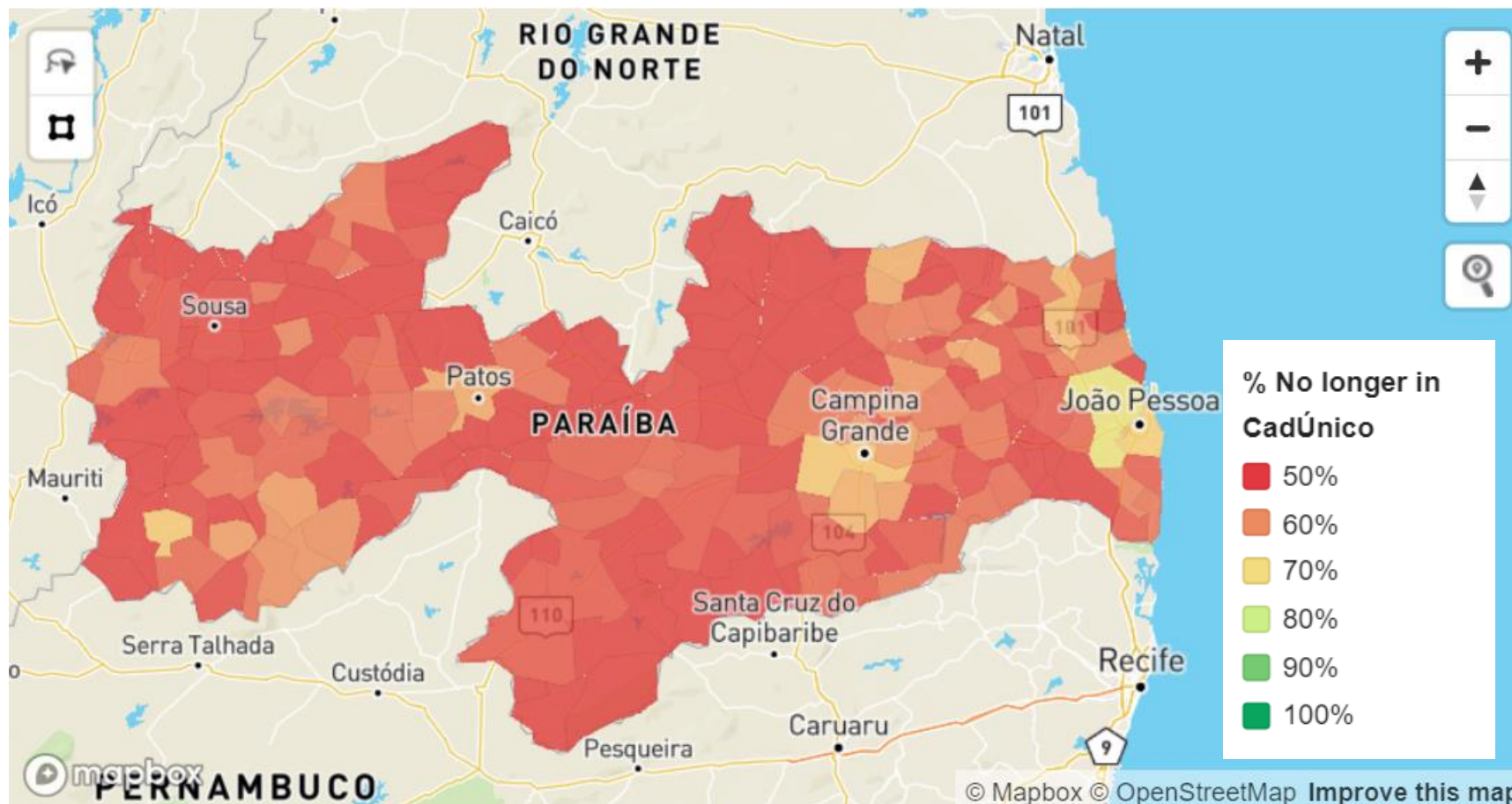
How are territories of origin differentiated by exit rates from *CadÚnico*?

Bahia (58%)



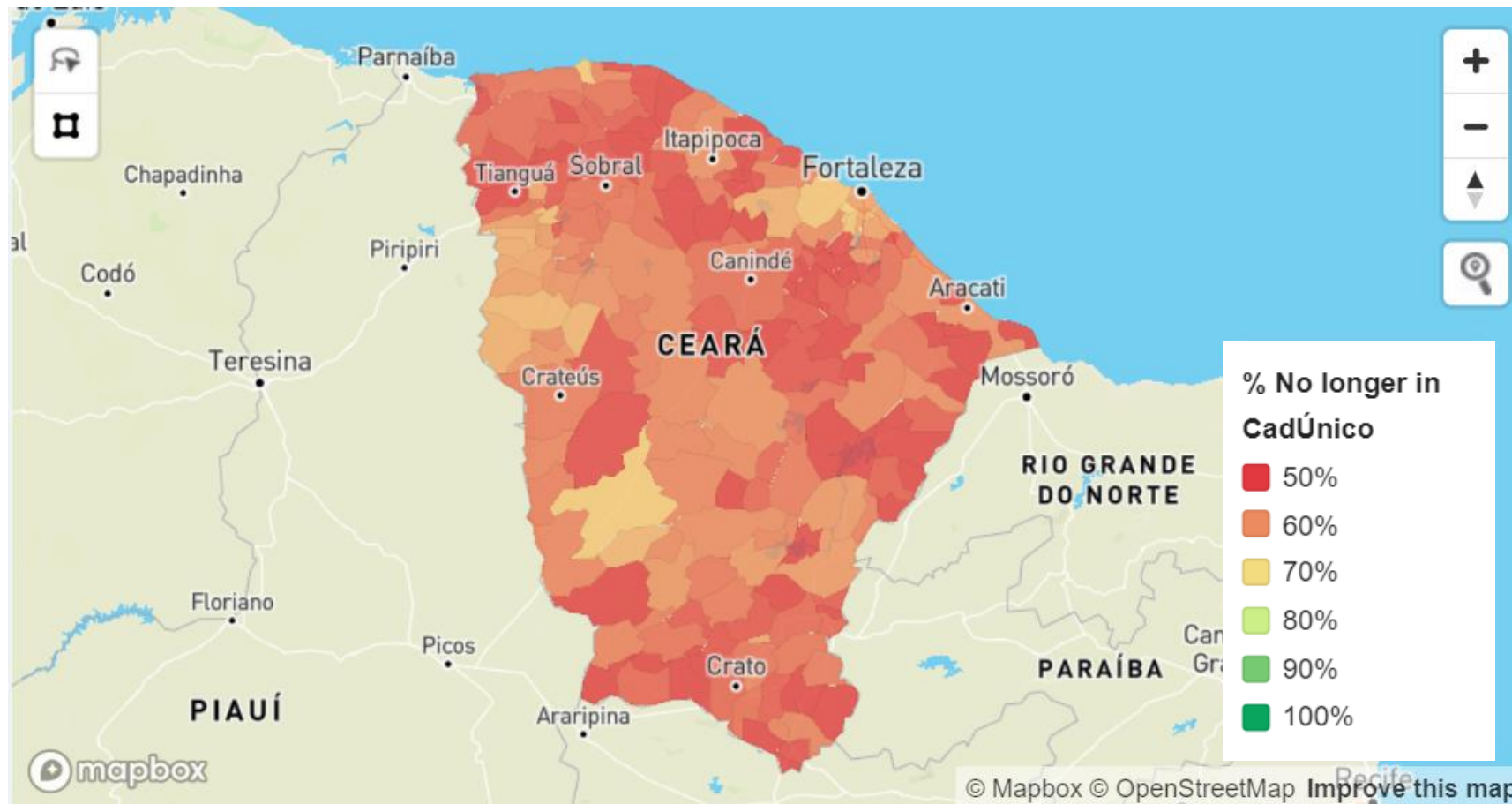
How are territories of origin differentiated by exit rates from *CadÚnico*?

Paraíba (57%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Ceará (57%)



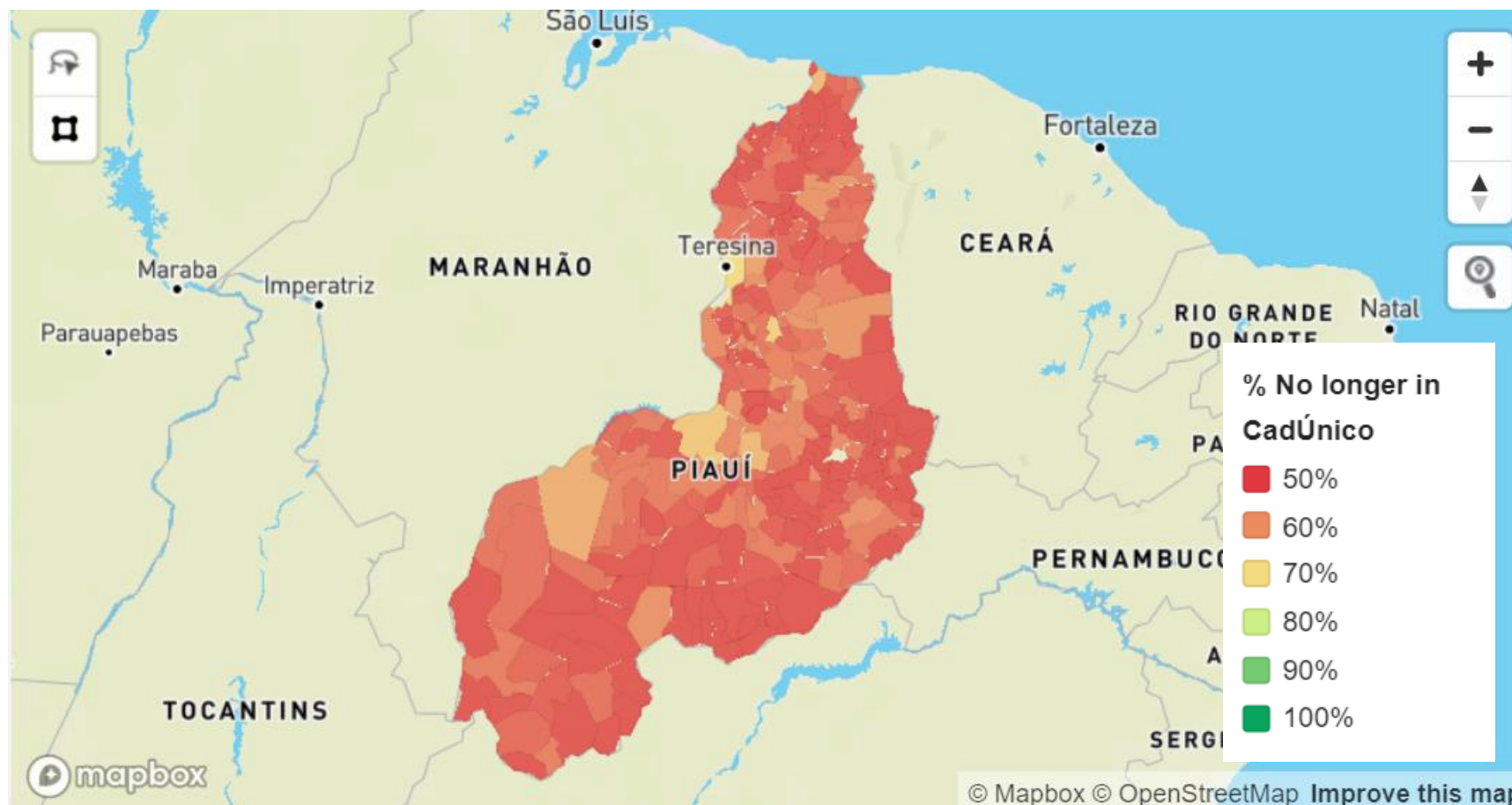
How are territories of origin differentiated by exit rates from *CadÚnico*?

Sergipe (56%)



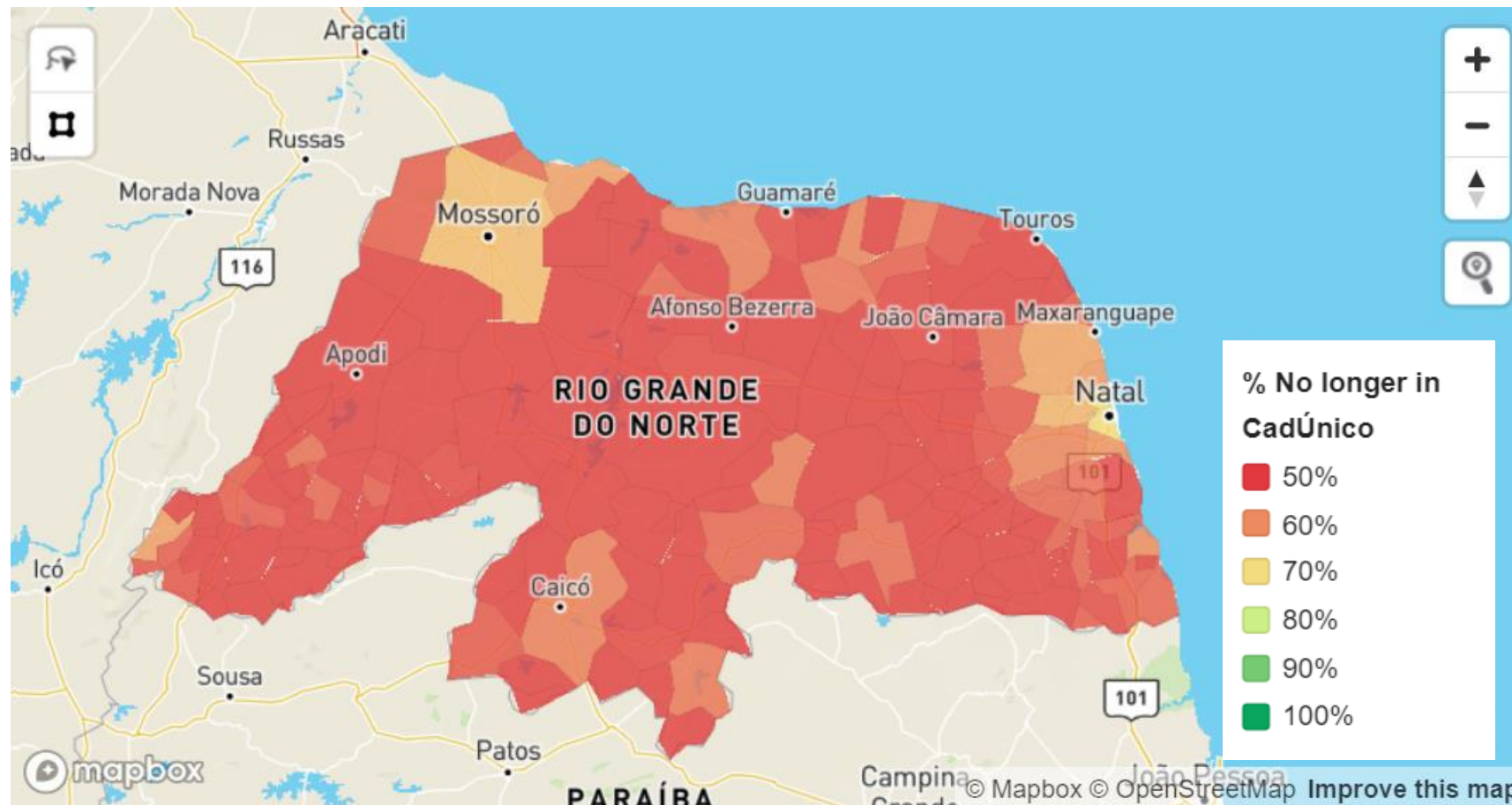
How are territories of origin differentiated by exit rates from *CadÚnico*?

Piauí (55%)



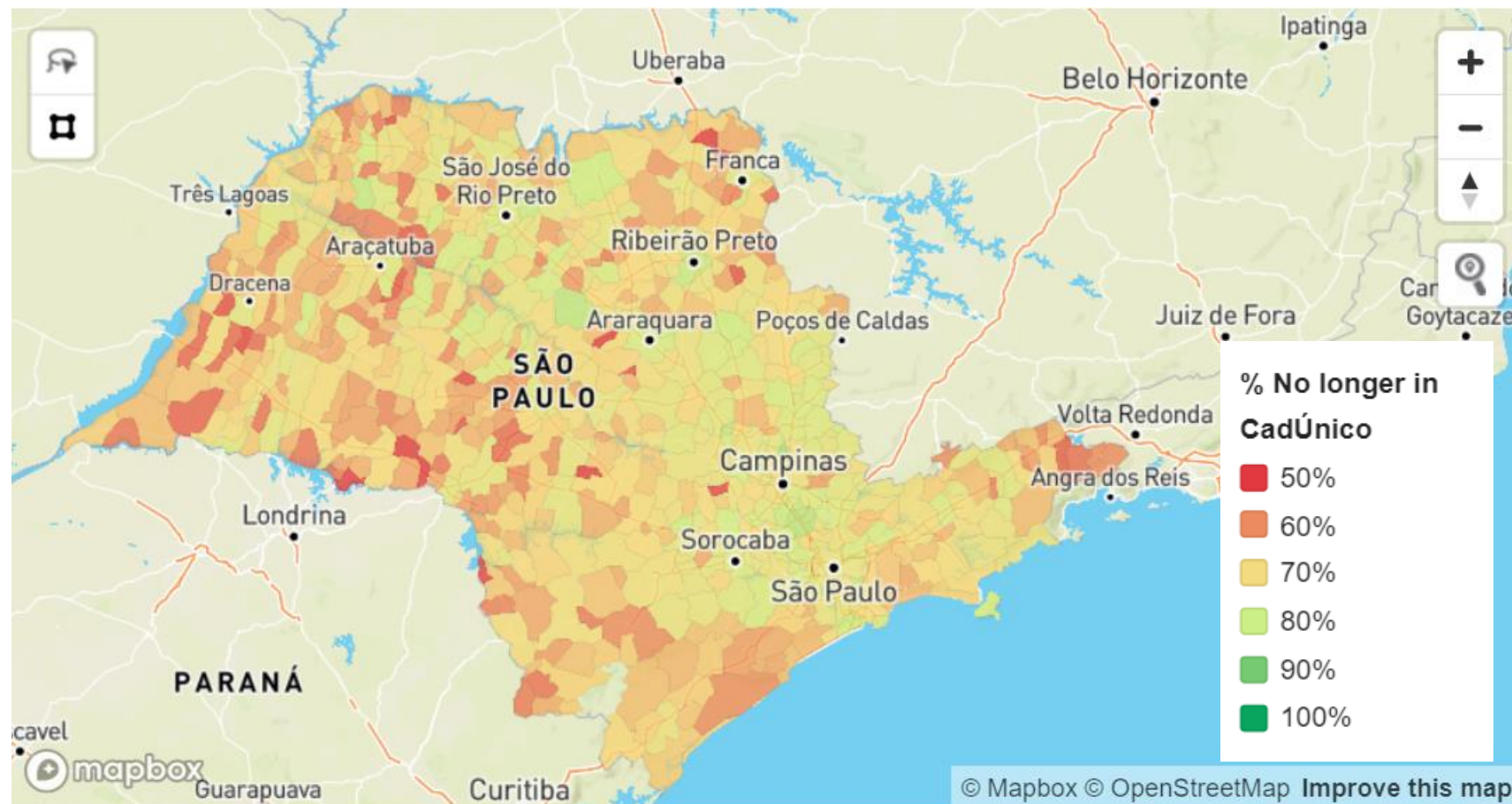
How are territories of origin differentiated by exit rates from *CadÚnico*?

Rio Grande do Norte (55%)



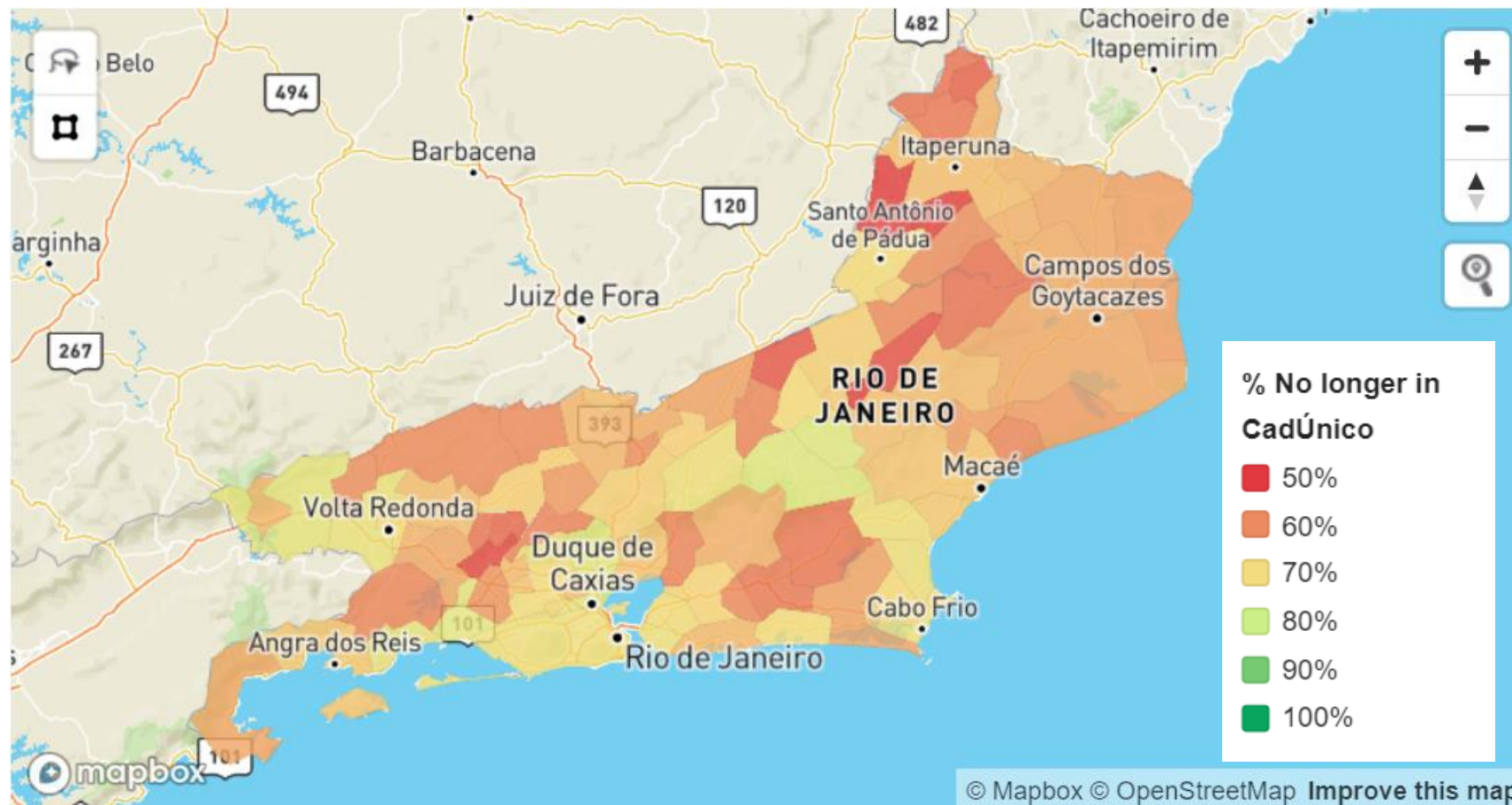
How are territories of origin differentiated by exit rates from *CadÚnico*?

São Paulo (73%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Rio de Janeiro (70%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Espírito Santo (70%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Minas Gerais (68%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Santa Catarina (81%)



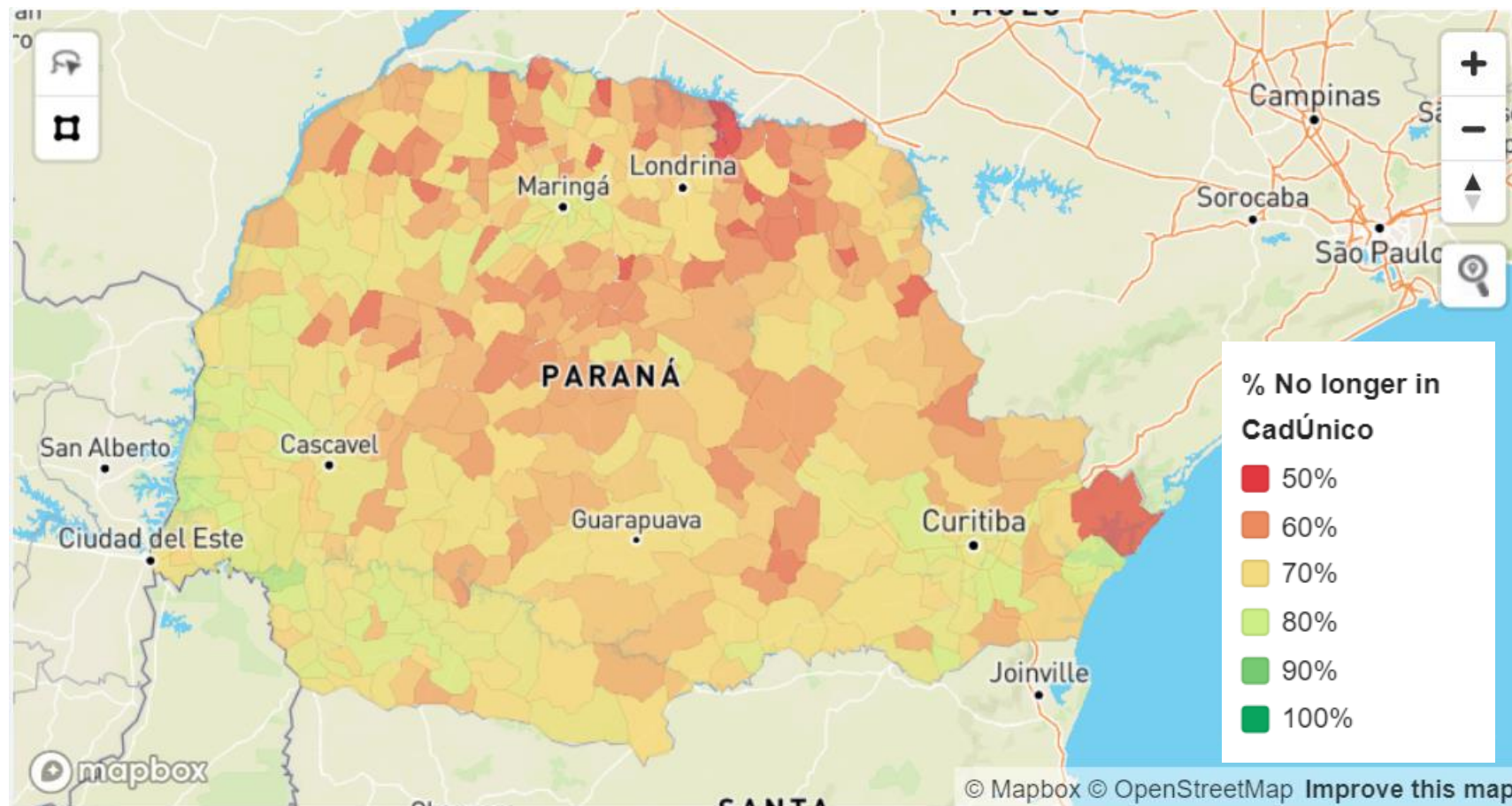
How are territories of origin differentiated by exit rates from *CadÚnico*?

Rio Grande do Sul (75%)



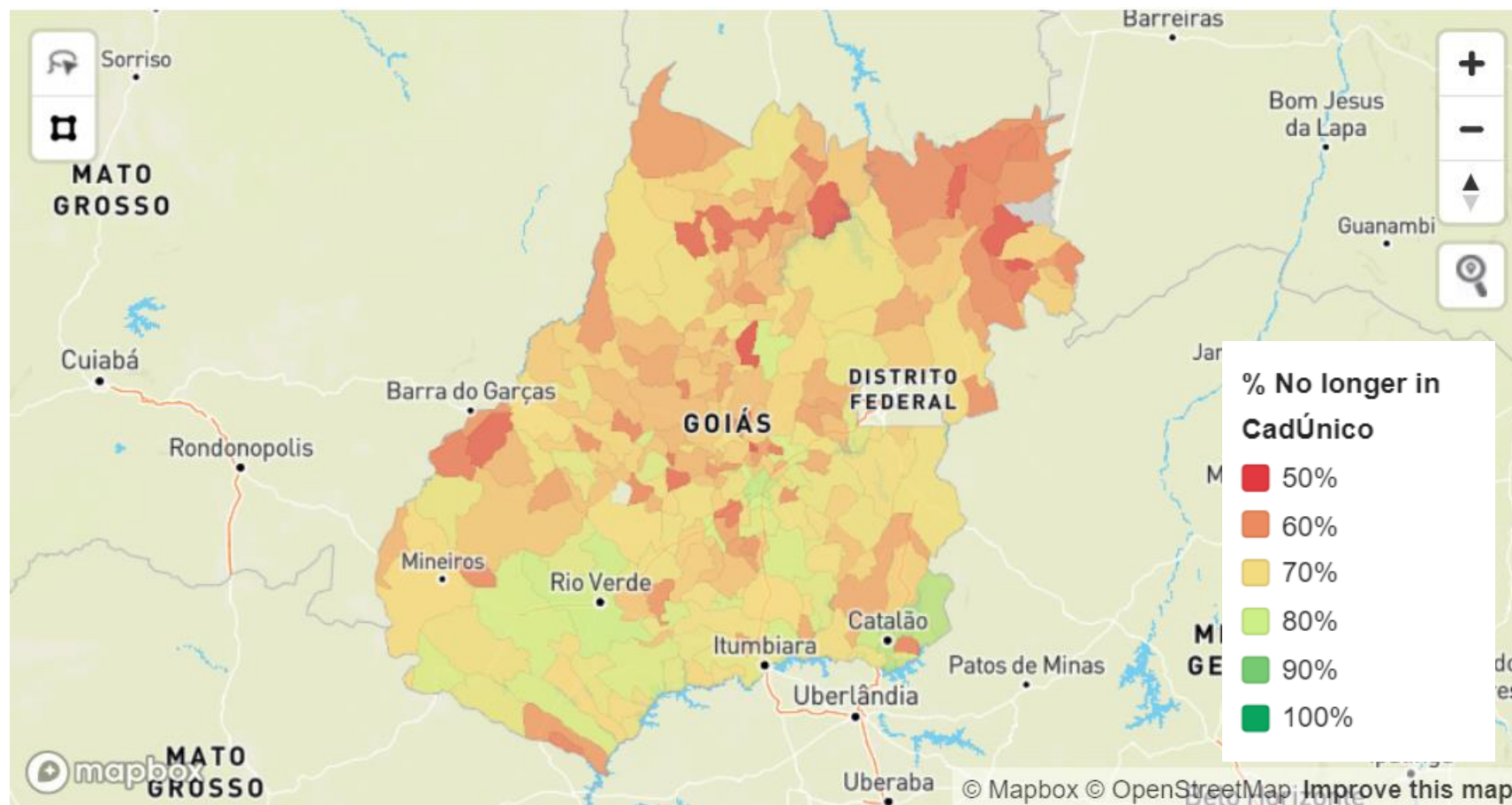
How are territories of origin differentiated by exit rates from *CadÚnico*?

Paraná (71%)



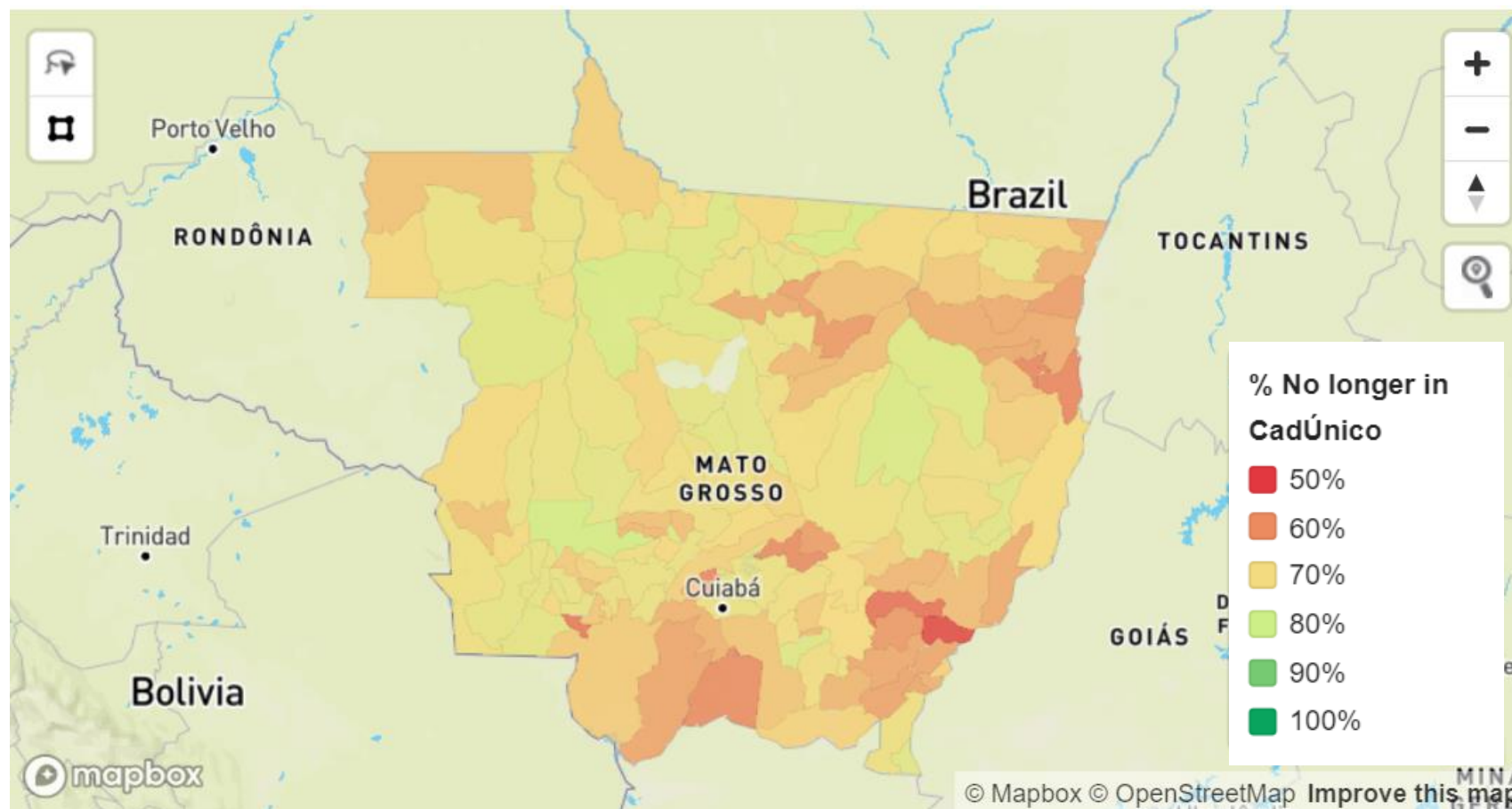
How are territories of origin differentiated by exit rates from *CadÚnico*?

Goiás (73%)



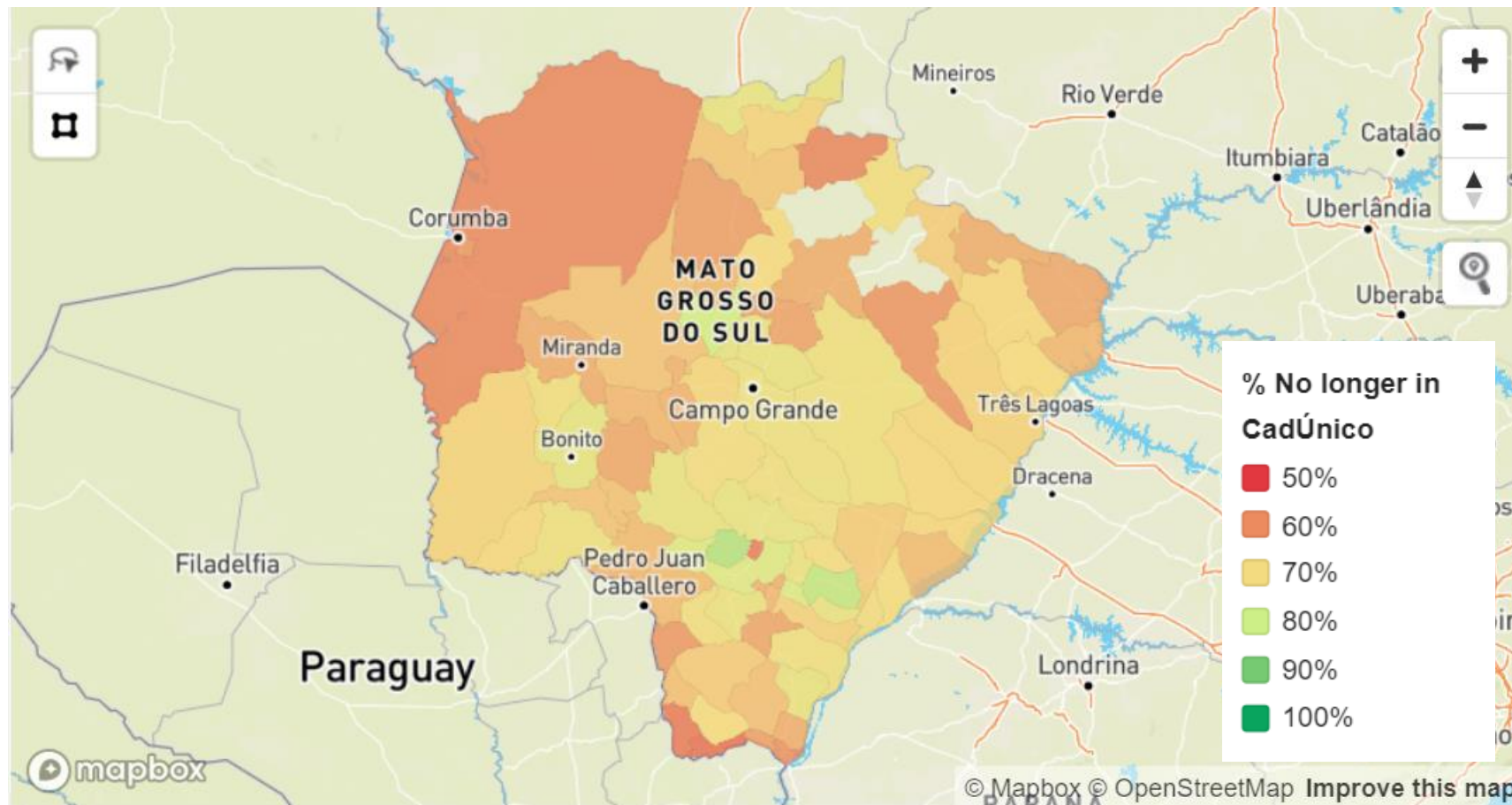
How are territories of origin differentiated by exit rates from *CadÚnico*?

Mato Grosso (72%)



How are territories of origin differentiated by exit rates from *CadÚnico*?

Mato Grosso do Sul (70%)





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instituto mobilidade e
desenvolvimento social

**Exit and permanence in *CadÚnico*: An analysis of
2005 beneficiaries of the *Bolsa Família* Program
(PBF)**

A study based on Single Registry records (*CadÚnico*) and on
Bolsa Família payroll

April 2022

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and Cecilia Machado (FGV EPGE)

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