

Ministry of Social Development and Fight Against Hunger

MDS

Mapserver technology supports the Data Warehouse of Actions and Investments of the Brazilian Ministry for Social Development and Fight Against Hunger

FOSS4G2006 - Free And Open Source Software for Geoinformatics

Caio Nakashima

September - 2006





Agenda

- # Introduction to the Problems
- # Chosen path
- # Developed products
- # Used Technologies
- # Details of the solutions
- # Future

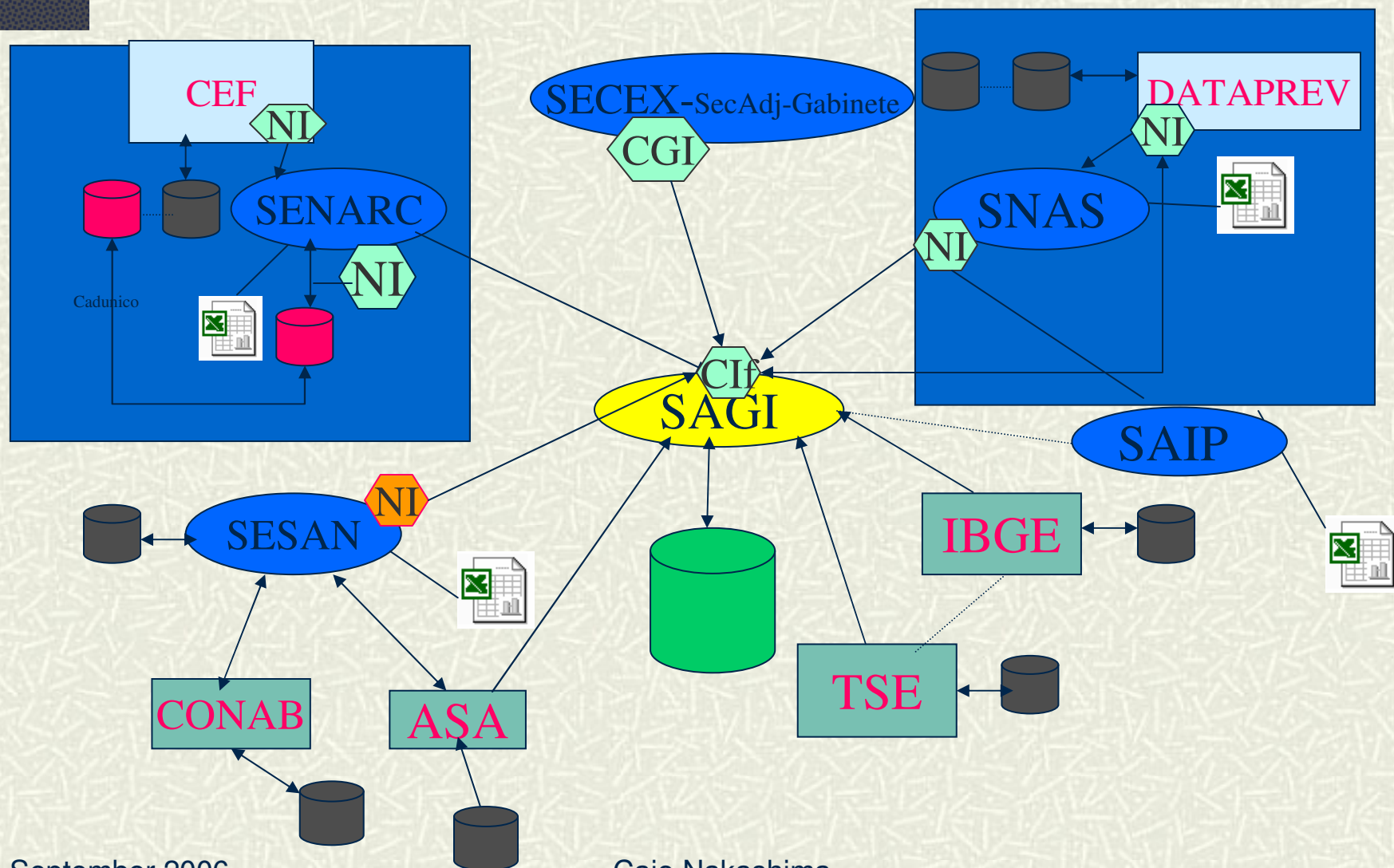


MDS Current Scenario

- # MDS is an amalgamation of previous separated Ministries
- # Low interoperability
- # Many stakeholders (banks, federation members, partners)
- # Formal Links (by law, contracts, agreements)
- # Need for agile information to the public
- # Different paradigms (concepts, modus operandi)

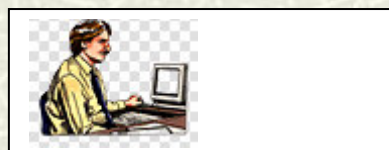


Scenario: Organizational Aspects



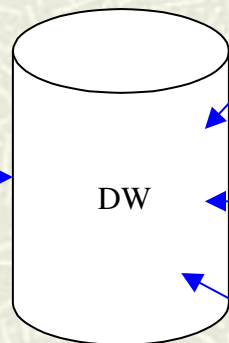


Social Information Matrix DATA FLOW



Gabinete
Sec Exec.

Social
MI



SIG
SENARC

SIG
SNAS

SIG
SESAN

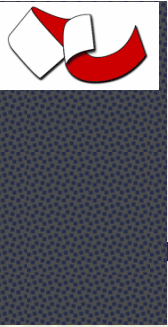
SIG
SAIP

SIG
SAGI
(M&A)

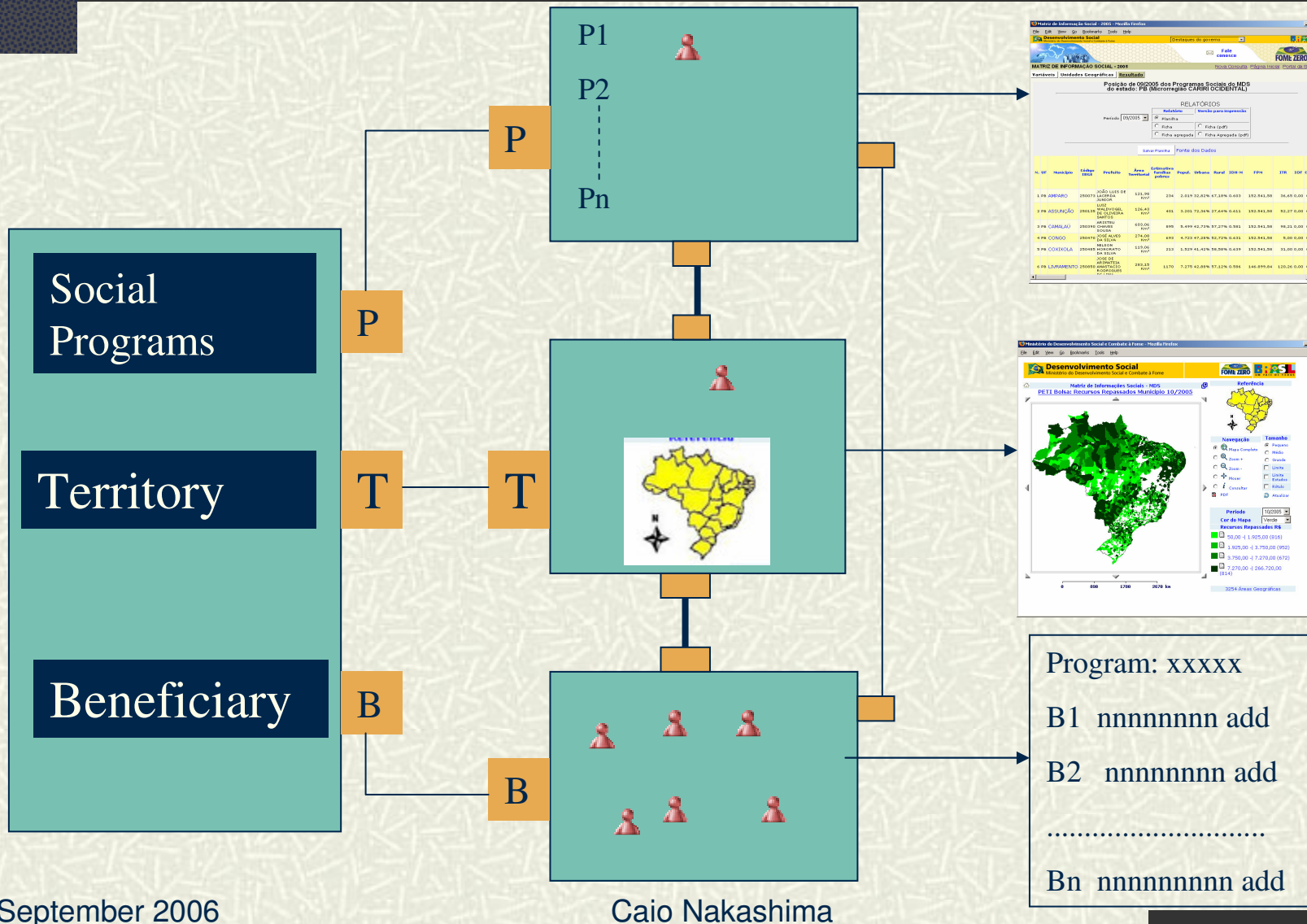
SAGI

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Information Architecture

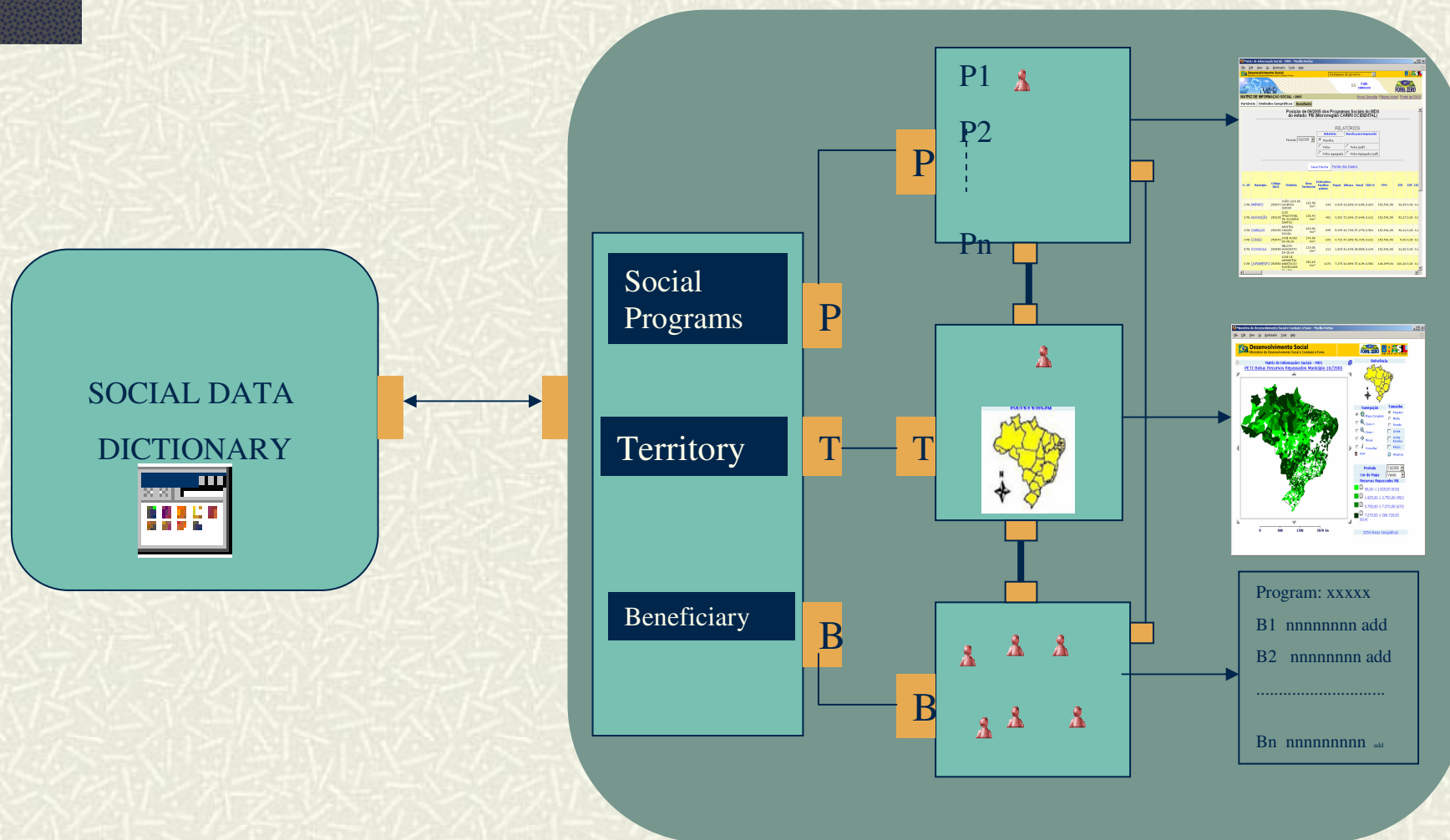


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Subsystem Integration





Benefits

- # Reduced response time to queries from hours and days to minutes and seconds
- # Information access comprehensive to the whole MDS
- # Extracting Business Intelligence to help programs Managers
- # Recording the historical data from the programs
- # Registering knowledge to be used as information source



Scenario

Caixa Economica
Federal

CONAB

Tesouro Nacional

IBGE

Spreadsheet

PNUD

DATAPREV

TRE

REPORTS



Social Information Data Warehouse

- # Allows to retrieve information about the investments on Social Programs in each city, with the following dimensions:
 - Search Items
 - Geographic Units
 - Territorial Limits
 - Population
 - IDH (Human Development Index)
 - Time



First Screen



Select
the
desired
period

Social Information Matrix - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Desenvolvimento Social
Ministério do Desenvolvimento Social e Combate à Fome

SPOTLIGHTS OF THE GOVERNMENT

Contact us

Social Information Matrix v. 2006 1.4 Beta [New search](#) [Main page](#) [Portal SAGI](#)

Definition of information **Variables and Indicators**

Select:

Variables and Indicators disaggregated by: **Municipality**

Period: **Month**

Last month available

7/2006

6/2006

5/2006

4/2006

3/2006

2/2006

1/2006

12/2005

11/2005

10/2005

9/2005

8/2005

7/2005

6/2005

5/2005

4/2005

3/2005

2/2005



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Social Information Matrix v. 2006 1.4 Beta [New search](#) [Main page](#) [Portal SAGI](#)

Definition of information **Variables and Indicators** **Geographic units**

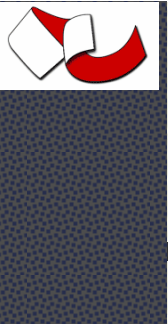
Variables and Indicators - (Monthly by municipality)

Period: 6/2006, 5/2006

Left Panel	Navigation	Right Panel
<i>Municipal Information</i> Territorial area Poor Families Estimative PNAD 2001 Human Development Index - IDHM 2000 Population Elected Mayor(2004)		<i>Municipal Information</i> Territorial area Poor Families Estimative PNAD 2001 Human Development Index - IDHM 2000 Population Elected Mayor(2004)
<i>General Information</i> CIDE - Contribution of intervention in economical domain Financial Aid for Exporter States - FEX Municipalities Participation Fund - FPM The Maintenance and Development for the Fundamental Education and Tax on Financial Operations - IOF Rural Territorial Tax - ITR LC_87_96 LC_87_96_1579	>> > < <<	<i>General Information</i> CIDE - Contribution of intervention in economical domain Financial Aid for Exporter States - FEX Municipalities Participation Fund - FPM The Maintenance and Development for the Fundamental Education and Teach Tax on Financial Operations - IOF Rural Territorial Tax - ITR LC_87_96 LC_87_96_1579
<i>Cash Transfer</i> Gas Grant - Auxílio Gás Food Grant - Bolsa Alimentação School Grant - Bolsa Escola Bolsa Família Program - Bolsa Família Feeding card Program Resources from Cash Transfer Programs		<i>Cash Transfer</i> Gas Grant - Auxílio Gás Food Grant - Bolsa Alimentação School Grant - Bolsa Escola Bolsa Família Program - Bolsa Família Feeding card Program Resources from Cash Transfer Programs
<i>Social Assistance</i> Basic Social Protection to Youngsters - Grant - PSB Jovem BAJ Continuous Assistance Benefit - Elderly and Disabled People - BPC Child Labour Eradication Program in urban areas - socio-educational act Child Labour Eradication Program in Urban areas - PETI BOLSA URB Medium Complexity Fixed Level - PFMC		<i>Social Assistance</i> Basic Social Protection to Youngsters - Grant - PSB Jovem BAJ Continuous Assistance Benefit - Elderly and Disabled People - BPC Child Labour Eradication Program in urban areas - socio-educational actions - Child Labour Eradication Program in Urban areas - PETI BOLSA URB Medium Complexity Fixed Level - PFMC

→

Select the variable and Indicators



Select the territory and other filter as Population and HDI

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New search Main page Portal SAGI

Definition of information Variables and Indicators Geographic units

Search by territory

Territorial Division: RIO DE JANEIRO

Micro region:

Municipality:

Advanced search standards

Population: >= over or equal to 0

IDHM 2000: All 0.00

Select all: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z All

Search

92 Listed municipalities

Select all Clear all

→

<input type="checkbox"/> ANGRA DOS REIS - RJ Pop.: 140345 - IDH-M: 0.772	<input type="checkbox"/> APERIBÉ - RJ Pop.: 9087 - IDH-M: 0.756	<input type="checkbox"/> ARARUAMA - RJ Pop.: 97701 - IDH-M: 0.756
<input type="checkbox"/> AREAL - RJ Pop.: 10957 - IDH-M: 0.765	<input type="checkbox"/> ARMAÇÃO DOS BÚZIOS - RJ Pop.: 23011 - IDH-M: 0.791	<input type="checkbox"/> ARRAIAL DO CABO - RJ Pop.: 26390 - IDH-M: 0.79
<input type="checkbox"/> BARRA DO PIRAÍ - RJ Pop.: 94332 - IDH-M: 0.781	<input type="checkbox"/> BARRA MANSA - RJ Pop.: 175328 - IDH-M: 0.806	<input type="checkbox"/> BELFORD ROXO - RJ Pop.: 480695 - IDH-M: 0.742
<input type="checkbox"/> BOM JARDIM - RJ Pop.: 23917 - IDH-M: 0.733	<input type="checkbox"/> BOM JESUS DO ITABAPOANA - RJ Pop.: 36024 - IDH-M: 0.746	<input type="checkbox"/> CABO FRIO - RJ Pop.: 159685 - IDH-M: 0.792
<input type="checkbox"/> CACHOEIRAS DE MACACU - RJ Pop.: 53785 - IDH-M: 0.752	<input type="checkbox"/> CAMBUCI - RJ Pop.: 14439 - IDH-M: 0.733	<input type="checkbox"/> CAMPOS DOS GOYTACAZES - RJ Pop.: 428212 - IDH-M: 0.752



Social Information Matrix - Mozilla Firefox

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Social Information Matrix v. 2006 1.4 Beta

Definition of information | Variables and Indicators | Geographic units | **Result**

Printed in: 8/9/2006-12:5:27

Amount of registries: 2

Select the desired report format

Page (1)

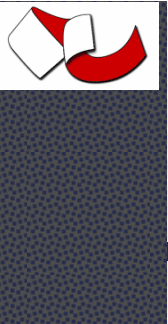
Data source

Municipality				Municipal Information									
N.	State	Municipality	IBGE code	Territorial area	Poor Families Estimative PNAD 2001	Human Development Index - IDHM 2000	Population	Elected Mayor(2004)	CIDE - Contribution of intervention in economical domain		Finantial Aid for Exporter States - FEX		Municip
				Km ²	Amount		Population (2005)	Name	(R\$)	(R\$)	(R\$)	(R\$)	(R\$)
1	RJ	ANGRA DOS REIS	330010	800	4.634	0,77	140.345	FERNANDO ANTONIO CECILIANO JORDÃO	0,00	0,00	0,00	0,00	1.220,9
2	RJ	RIO DE JANEIRO	330455	1.182	165.259	0,84	6.094.183	CESAR EPITÁCIO MAIA	0,00	0,00	0,00	0,00	7.440,9
Page Total				1.983	169.893	NA	6.234.528	NA	0,00	0,00	0,00	0,00	8.661,9

Data source

NAv - NOT AVAILABLE
NAp - NOT APPLICABLE
* - Last month available information

Result in spreadsheet form



Mozilla Firefox

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Ministério do Desenvolvimento Social e Combate à Fome

Data source

Variable / Indicator	Value		
Municipality			
N.	1		
State	RJ		
Municipality	ANGRA DOS REIS		
IBGE code	330010		
Municipal Information			
Territorial area	-	Km² 800	
Poor Families Estimative PNAD 2001	-	Amount 4.634	
Population	-	Population (2005) 140.345	
General Information			
Municipalities Participation Fund - FPM	06/2006 (R\$)	1.220.981,66	
	05/2006 (R\$)	1.254.631,38	
The Maintenance and Development for the Fundamental Education and Teacher's Appreciation Fund - FUNDEF	06/2006 (R\$)	1.799.014,54	
	05/2006 (R\$)	1.858.907,16	
Rural Territorial Tax - ITR	06/2006 (R\$)	894,36	
	05/2006 (R\$)	1.981,76	
LC 87 96	06/2006 (R\$)	449.609,54	
	05/2006 (R\$)	89.921,91	
Cash Transfer			
Gas Grant - Auxílio Gás	06/2006	Amount of families	148
		Total value	2.220,00
	05/2006	Amount of families	1.314
		Total value	19.710,00
School Grant - Bolsa Escola	06/2006	Amount of families	25
		Total value	510,00
	05/2006	Amount of families	41
		Total value	855,00
Bolsa Família Program - Bolsa Família	06/2006	Amount of families	ND
		Total value	ND
	05/2006	Amount of families	1.643
		Total value	103.418,00
Resources from Cash Transfer Programs	06/2006 (R\$)	2.730,00	
	05/2006 (R\$)	123.983,00	
Social Assistance			

Result in card form.
Each city in a card



Another Way to Search Data

- # Viewing data through social program
- # Georeferenced Data
- # Graphics



Bolsa Família coverage



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Social Information Data Warehouse - Social Maps

Bolsa Familia Program: Coverage of Bolsa Familia (Brasil) por City-08/2006

Reference

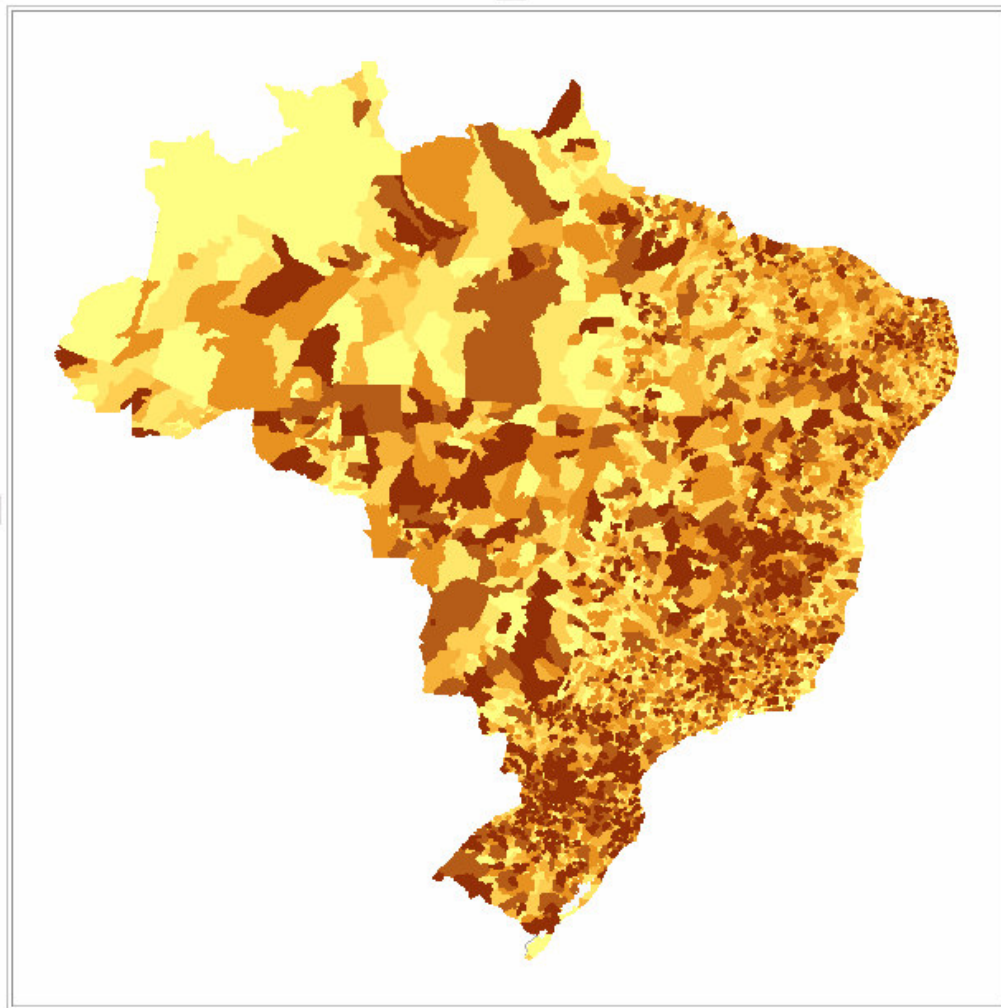


Navigation

- Full Map
- Zoom In
- Zoom Out
- Pan
- Query
- PDF
- Legend Edit

Show

- Small
- Medium
- Large
- Boundary
- States Boundary
- Label
- Update
- Map Color
- Source



0 678 1348 2018 km

Time Line 08/2006

Selection

Brasil

Amount of Intervals 7

Coverage of Bolsa Familia %

- 0,00(4)
- 0,00 |-| 80,08 (795)
- 80,08 |-| 95,29 (794)
- 95,29 |-| 105,07 (794)
- 105,07 |-| 114,55 (794)
- 114,55 |-| 118,58 (794)
- 118,58 |-| 124,50 (794)
- 124,50 |-| 266,36 (795)

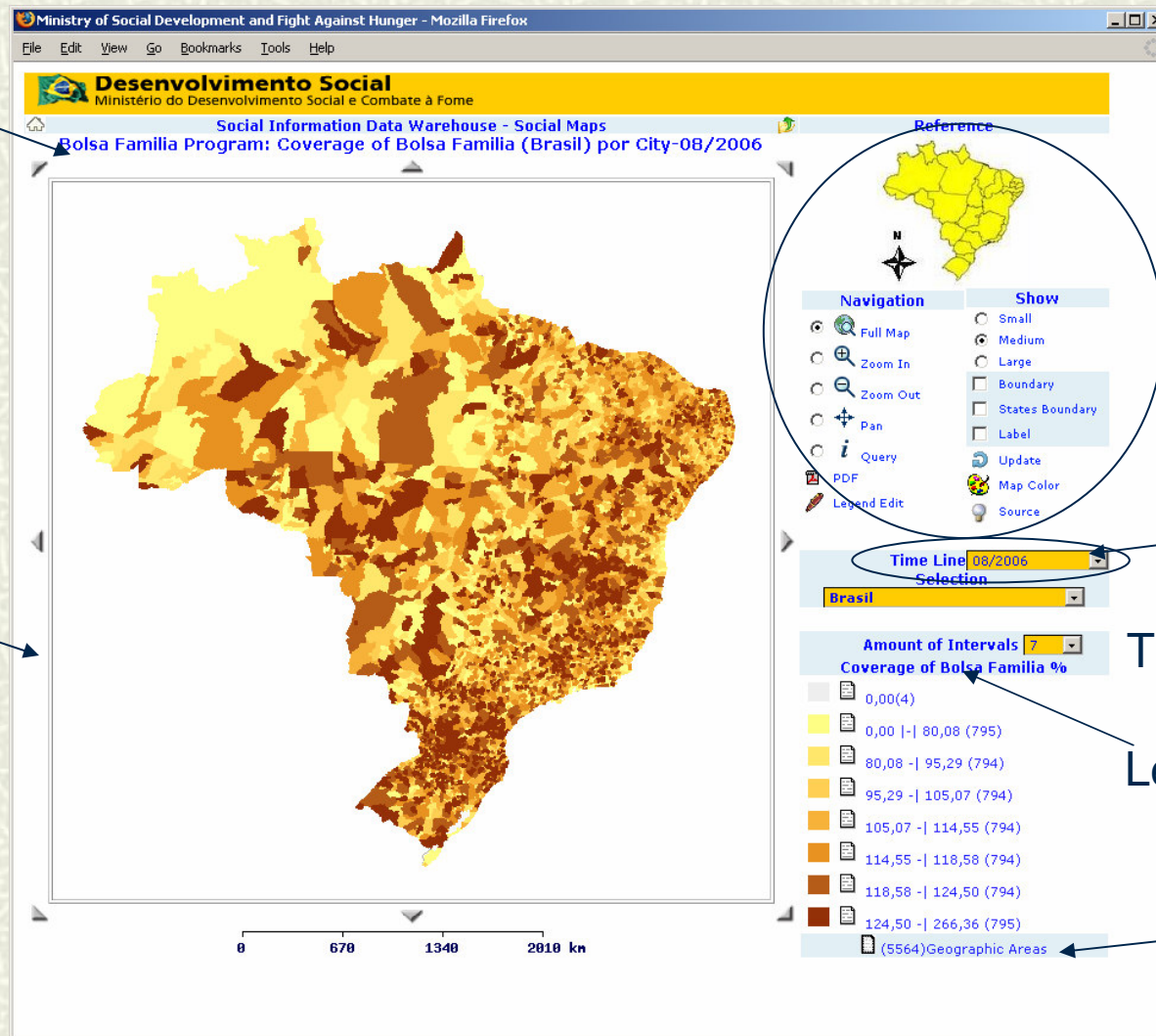
(5564)Geographic Areas



Map Viewer Structure

Title (variable)

Viewing Area (variable)



Functionalities (invariable)

Analysis Time (variable)

Title (variable)
Legend(variable)

Number of registers (variable)

Selection of a special area of some social program (Bolsa Familia Program in the area of Sao Francisco River)





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Social Information Data Warehouse - Social Maps

Bolsa Familia Program: Coverage of Bolsa Familia (São Francisco) por City-08/2006

Reference



Navigation	Show
<input type="radio"/> Full Map	<input type="radio"/> Small
<input type="radio"/> Zoom In	<input checked="" type="radio"/> Medium
<input type="radio"/> Zoom Out	<input type="radio"/> Large
<input type="radio"/> Pan	<input type="checkbox"/> Boundary
<input type="radio"/> Query	<input type="checkbox"/> States Boundary
<input type="checkbox"/> PDF	<input type="checkbox"/> Label
<input type="checkbox"/> Legend Edit	<input type="checkbox"/> Update
	<input checked="" type="checkbox"/> Map Color
	<input type="checkbox"/> Source

Time Line **08/2006**

Selection

- São Francisco
- SE
- SP
- TO
- Região Sudeste
- Região Norte
- Região Nordeste
- Região Sul
- Região Centro Oeste
- Área de influência da BR-163
- Chamada Quilombolas
- Distribuição de Lotes para Capacitação
- Dultra
- GESAC sob a responsabilidade do MDS
- GESAC sob a responsabilidade do MDS Funci
- Inclusão Produtiva Municípios Selecionados
- Município de Referência para os projetos de
- Município que fizeram parte da Chamada Nat
- Projeto Edital 575
- Região Varginha
- São Francisco





Some features of Map Engine



Legend and Layer Control

http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox

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Ministério do Desenvolvimento Social e Combate à Fome

Change Interval (red values)

Order	Begin	End	Visible	Map Color			
				Atual	R	G	B
1	0.00	90.47	<input checked="" type="checkbox"/>		255	255	132
2	90.47	102.32	<input checked="" type="checkbox"/>		255	231	107
3	102.32	111.15	<input checked="" type="checkbox"/>		255	207	82
4	111.15	117.87	<input checked="" type="checkbox"/>		247	178	57
5	117.87	119.46	<input checked="" type="checkbox"/>		231	146	33
6	119.46	126.30	<input checked="" type="checkbox"/>		181	93	24
7	126.30	157.11	<input checked="" type="checkbox"/>		148	48	8

×

- Change the Interval
- Turn on or Turn off the Interval
- Change the Color of the Interval



Example of some changes

http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox

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Ministério do Desenvolvimento Social e Combate à Fome

Change Interval (red values)

Order	Begin	End	Visible	Map Color			
				Atual	R	G	B
1	0.00	80.00	<input type="checkbox"/>		255	255	132
2	80.00	85.00	<input type="checkbox"/>		255	231	107
3	85.00	86.00	<input type="checkbox"/>		255	207	82
4	86.00	87.00	<input type="checkbox"/>		247	178	57
5	87.00	100.00	<input checked="" type="checkbox"/>		231	146	33
6	100.00	125.00	<input checked="" type="checkbox"/>		181	93	24
7	125.00	157.11	<input checked="" type="checkbox"/>		0	116	8

×



Desenvolvimento Social

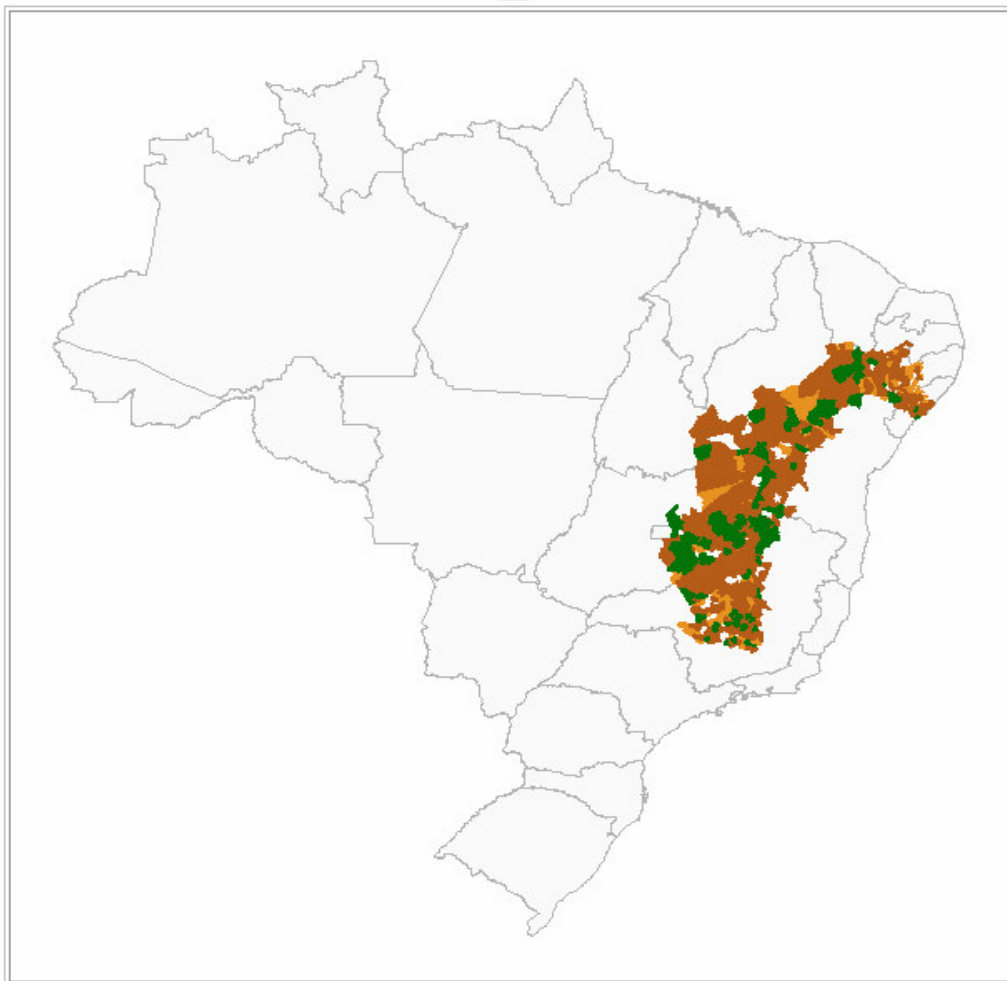
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Social Information Data Warehouse - Social Maps

Bolsa Familia Program: Coverage of Bolsa Familia (São Francisco) por City-08/2006

Reference



Navigation

- Full Map
- Zoom In
- Zoom Out
- Pan
- Query
- PDF
- Legend Edit

Show

- Small
- Medium
- Large
- Boundary
- States Boundary
- Label
- Update
- Map Color
- Source

Time Line 08/2006

Selection

São Francisco

Amount of Intervals 7

Coverage of Bolsa Familia %

- 87,00 -| 100,00
- 100,00 -| 125,00
- 125,00 -| 157,11

(505)Geographic Areas


The Color Pallet





The Color Pallet

http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox

 **Desenvolvimento Social**
Ministério do Desenvolvimento Social e Combate à Fome

Color Choice

0	<input type="radio"/>	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray	Light Gray
1	<input type="radio"/>	Light Gray	Pink	Pink	Pink	Pink	Pink	Pink
2	<input type="radio"/>	Light Gray	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue
3	<input type="radio"/>	Light Gray	Light Green	Light Green	Light Green	Light Green	Light Green	Light Green
4	<input type="radio"/>	Light Gray	Light Yellow	Light Yellow	Light Yellow	Light Yellow	Light Yellow	Light Yellow
5	<input type="radio"/>	Light Gray	Light Teal	Light Teal	Light Teal	Light Teal	Light Teal	Light Teal
6	<input checked="" type="radio"/>	Light Gray	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
7	<input type="radio"/>	Light Gray	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
8	<input type="radio"/>	Light Gray	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
9	<input type="radio"/>	Light Gray	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue
10	<input type="radio"/>	Light Gray	Green	Green	Green	Green	Green	Green
11	<input type="radio"/>	Light Gray	Green	Green	Green	Green	Green	Green

x

- Map Color
- Border Color
- Label Color



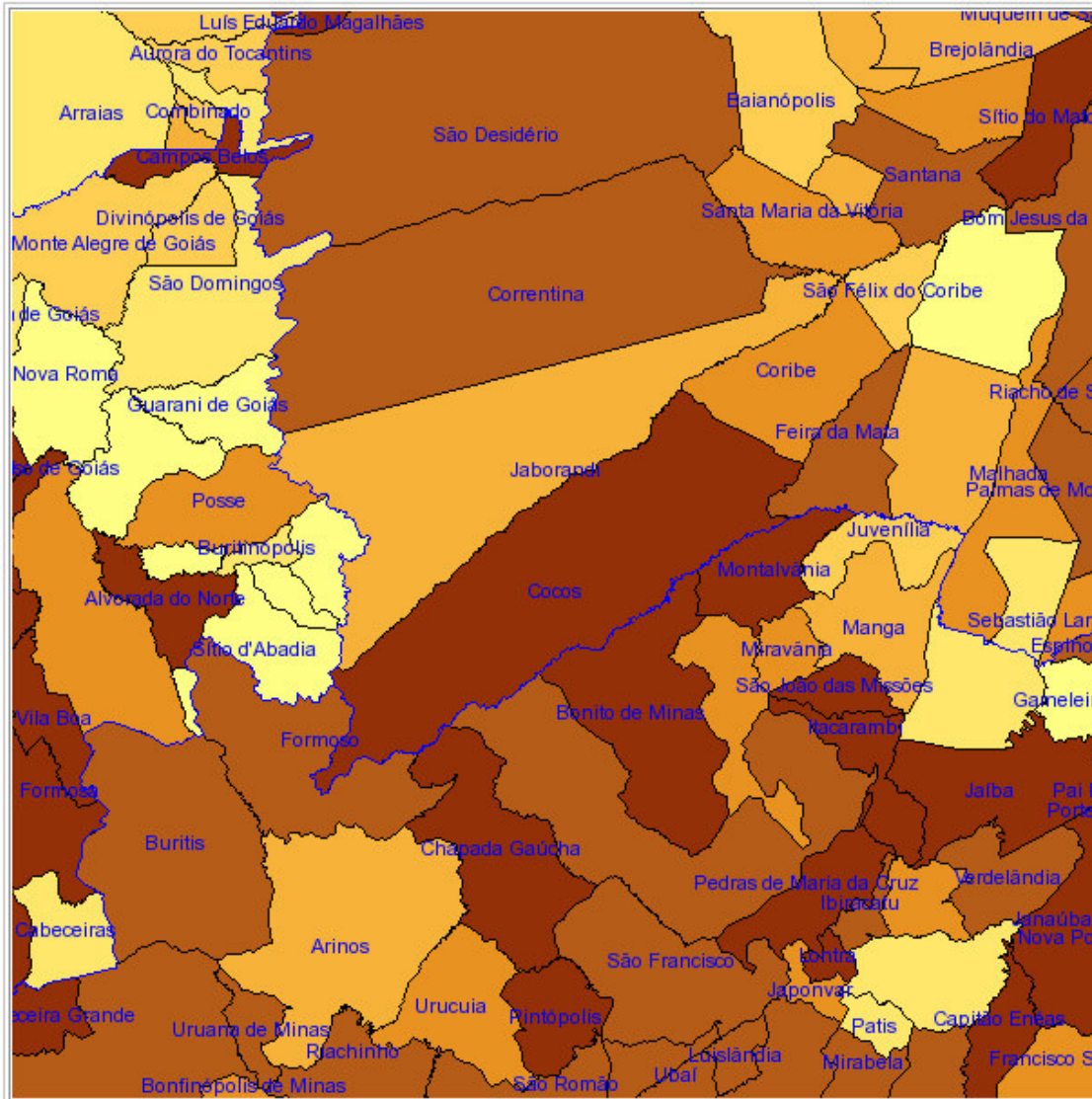
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Social Information Data Warehouse - Social Maps

Coverage of Bolsa Família Program: Attending families under the limit of poverty (2004 IPEA) (%) (Brasil) per City-05/2006

Reference



Navigation	Show
Full Map	<input type="radio"/> Small
Zoom In	<input type="radio"/> Medium
Zoom Out	<input type="radio"/> Large
Pan	<input checked="" type="checkbox"/> Boundary
Query	<input checked="" type="checkbox"/> States Boundary
PDF	<input checked="" type="checkbox"/> Label
Legend Edit	Update
	Map Color
	Source

Time Line: 05/2006

Selection: **Brasil**

Amount of Intervals: 7

Attending families under the limit of poverty (2004 IPEA) (%)

	0,00 - 66,18 (795)
	66,18 - 79,49 (794)
	79,49 - 87,00 (794)
	87,00 - 92,11 (794)
	92,11 - 96,61 (794)
	96,61 - 102,54 (794)
	102,54 - 193,51 (795)
(5560)Geographic Areas	



Social Information Data Warehouse - Social Maps

Coverage of Bolsa Família Program: Attending families under the limit of poverty (2004 IPEA) (%) (Brasil) per City-05/2006

Reference



Navigation

- Full Map
- Zoom In
- Zoom Out
- Pan
- Query
- PDF
- Legend Edit

Show

- Small
- Medium
- Large
- Boundary
- States Boundary
- Label
- Update
- Map Color
- Source

Time Line **05/2006**

Selection **Brasil**

Amount of Intervals **7**

Attending families under the limit of poverty (2004 IPEA) (%)

- 0,00 -| 66,18 (795)
- 66,18 -| 79,49 (794)
- 79,49 -| 87,00 (794)
- 87,00 -| 92,11 (794)
- 92,11 -| 96,61 (794)
- 96,61 -| 102,54 (794)
- 102,54 -| 193,51 (795)

(5560)Geographic Areas



Lontra



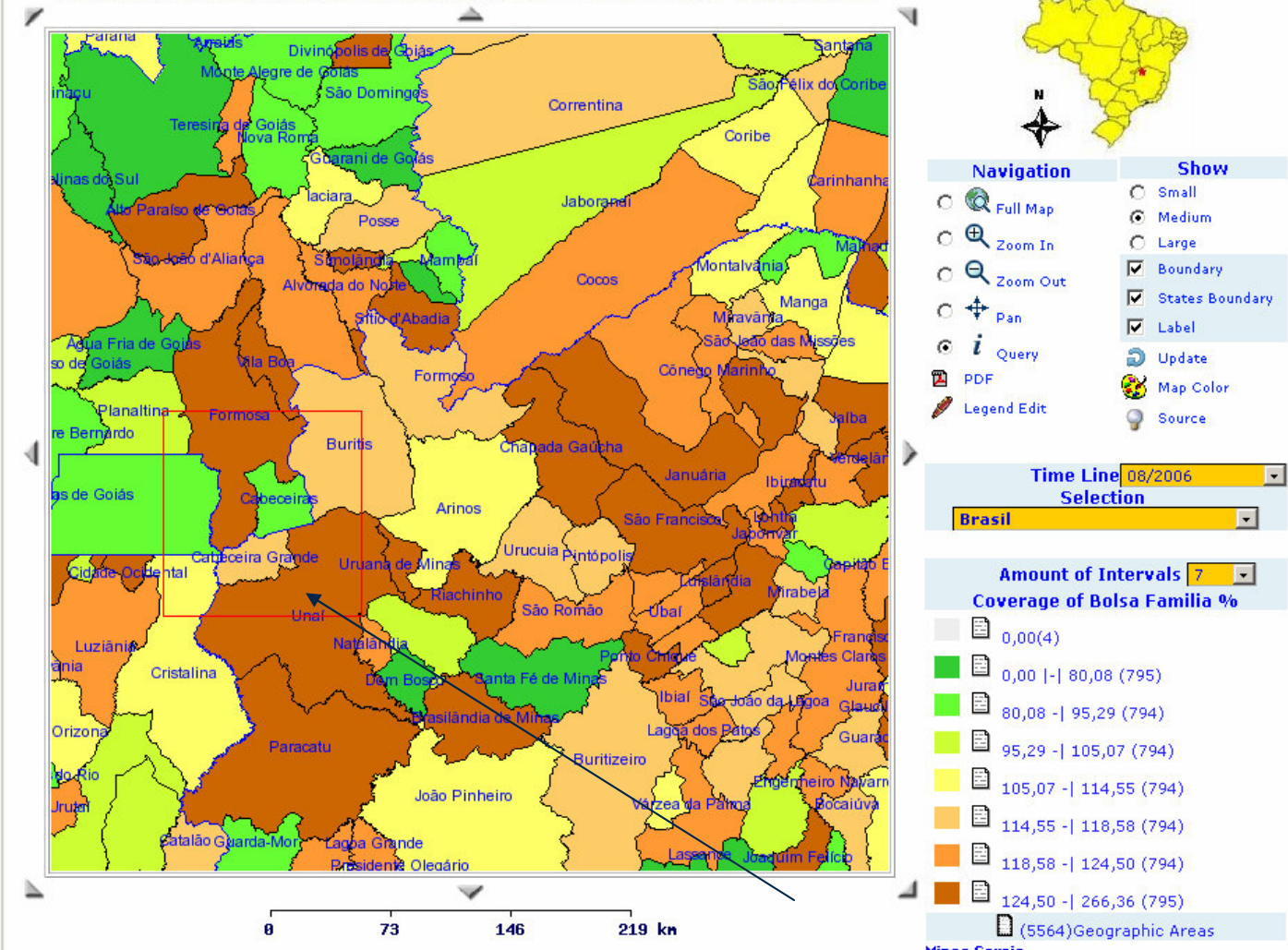
Retrieve Spatial Information



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Ministério do Desenvolvimento Social e Combate à Fome

Social Information Data Warehouse - Social Maps
Bolsa Familia Program: Coverage of Bolsa Familia (Brasil) por City-08/2006



Box to bound the search



Search Result

- # Show the selected geographic area
 - All geographic regions that touch or are inside the boundaries of the box.
- # Open a window with all chosen geographic regions with:
 - The values used to build the map.
 - Link to details of the geographic information.
 - Link to graphics when applied
 - Link to find the location of the region in map.

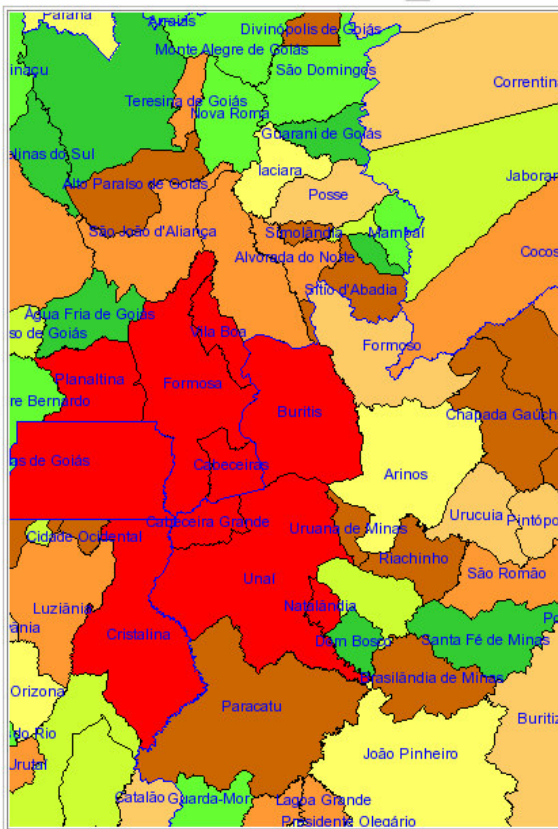


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Social Information Data Warehouse - Soc
Bolsa Familia Program: Coverage of Bolsa Familia (B



0 73 146

http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox



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Ministério do Desenvolvimento Social e Combate à Fome

Bolsa Familia Program: Coverage of Bolsa Familia (Brasil) por City-08/2006

	id	Geographic Unit	%
<input type="checkbox"/>	530010	DF-Brasília	84,14
<input type="checkbox"/>	520400	GO-Cabeceiras	84,56
<input type="checkbox"/>	521760	GO-Planaltina	99,01
<input type="checkbox"/>	520620	GO-Cristalina	110,73
<input type="checkbox"/>	310945	MG-Cabeceira Grande	117,84
<input type="checkbox"/>	310930	MG-Buritiz	118,41
<input type="checkbox"/>	314437	MG-Natalândia	119,01
<input type="checkbox"/>	317040	MG-Unai	126,38
<input type="checkbox"/>	520800	GO-Formosa	126,81
<input type="checkbox"/>	522220	GO-Vila Boa	142,72
<input checked="" type="checkbox"/>		Register(s)	10





Search through the map



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http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox

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Social Information Data Warehouse
FPM - Municipalities Participation Fund: Transferred resources (Brasil) por City-06/2006

Desenvolvimento Social
Ministério do Desenvolvimento Social e Combate à Fome

FPM - Municipalities Participation Fund: Transferred resources (Brasil) por City-06/2006
Cities which make border

	id	Geographic Unit	R\$
	410690	PR-Curitiba	8.827.330,14
		Register(s)	1
	IBGE	Geographic Unit	R\$
	412550	PR-São José dos Pinhais	2.294.088,73
	411915	PR-Pinhais	1.473.131,77
	410765	PR-Fazenda Rio Grande	1.213.167,33
	410580	PR-Colombo	2.294.088,45
	410420	PR-Campo Largo	1.386.476,95
	410425	PR-Campo Magro	606.583,69
	410180	PR-Araucária	1.386.476,95
	410040	PR-Almirante Tamandaré	1.386.476,95

0 78 156 234 km



Result of the search through the map

- # The chosen region is highlighted
- # A link is opened with detail of the selected geographic region.
- # Link to the graphics, where they show the evolution of the variable or indicator presented along the time.
- # The values of the variable or indicator of all cities on the borders of the chosen geographic area are shown.

Analysis through graphics

Example: Values of the financial help
and the amount of beneficiaries along
the time of Bolsa Família





List of all values represented in map

http://localhost - Ministry of Social Development and Fight Against Hunger - Mozilla Firefox



Desenvolvimento Social

Ministério do Desenvolvimento Social e Combate à Fome

Bolsa Familia Program: Number of beneficiaries families (Brasil) por City-08/2006

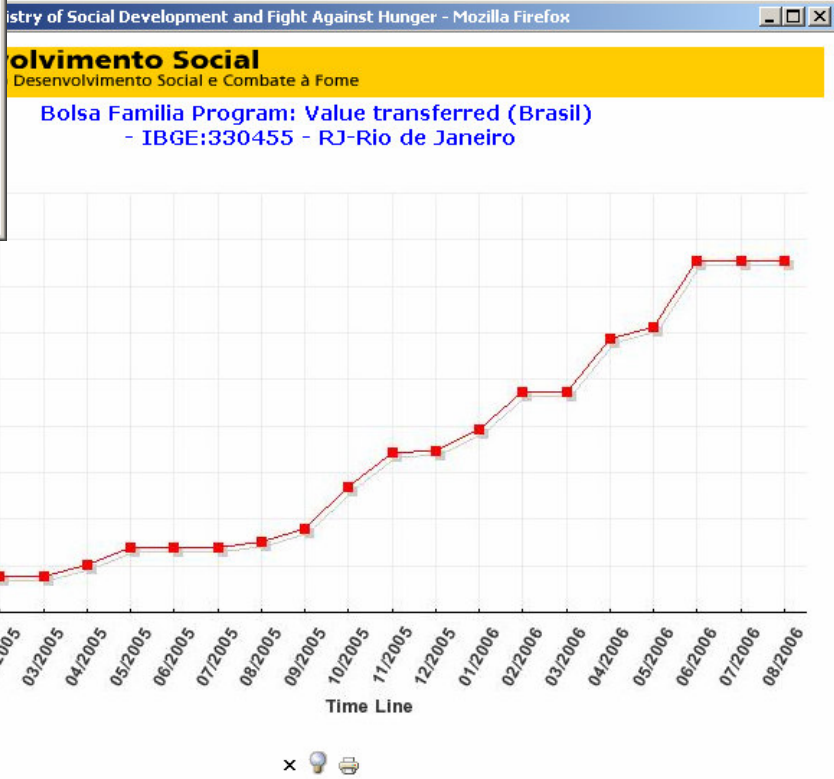
	id	Geographic Unit	Families
<input type="checkbox"/>	150140	PA-Belém	65.107
<input type="checkbox"/>	211130	MA-São Luís	66.398
<input type="checkbox"/>	130260	AM-Manaus	80.508
<input type="checkbox"/>	310620	MG-Belo Horizonte	80.681
<input type="checkbox"/>	530010	DF-Brasília	80.740
<input type="checkbox"/>	261160	PE-Recife	89.683
<input checked="" type="checkbox"/>	330455	RJ-Rio de Janeiro	95.884
<input type="checkbox"/>	292740	BA-Salvador	116.827
<input type="checkbox"/>	230440	CE-Fortaleza	131.889
<input checked="" type="checkbox"/>	355030	SP-São Paulo	213.603

Register(s)	5,560
Sum of Values	11.101.180,00
Average	1.996,62
Median	910,00





Amount of families (beneficiaries) of Bolsa Familia



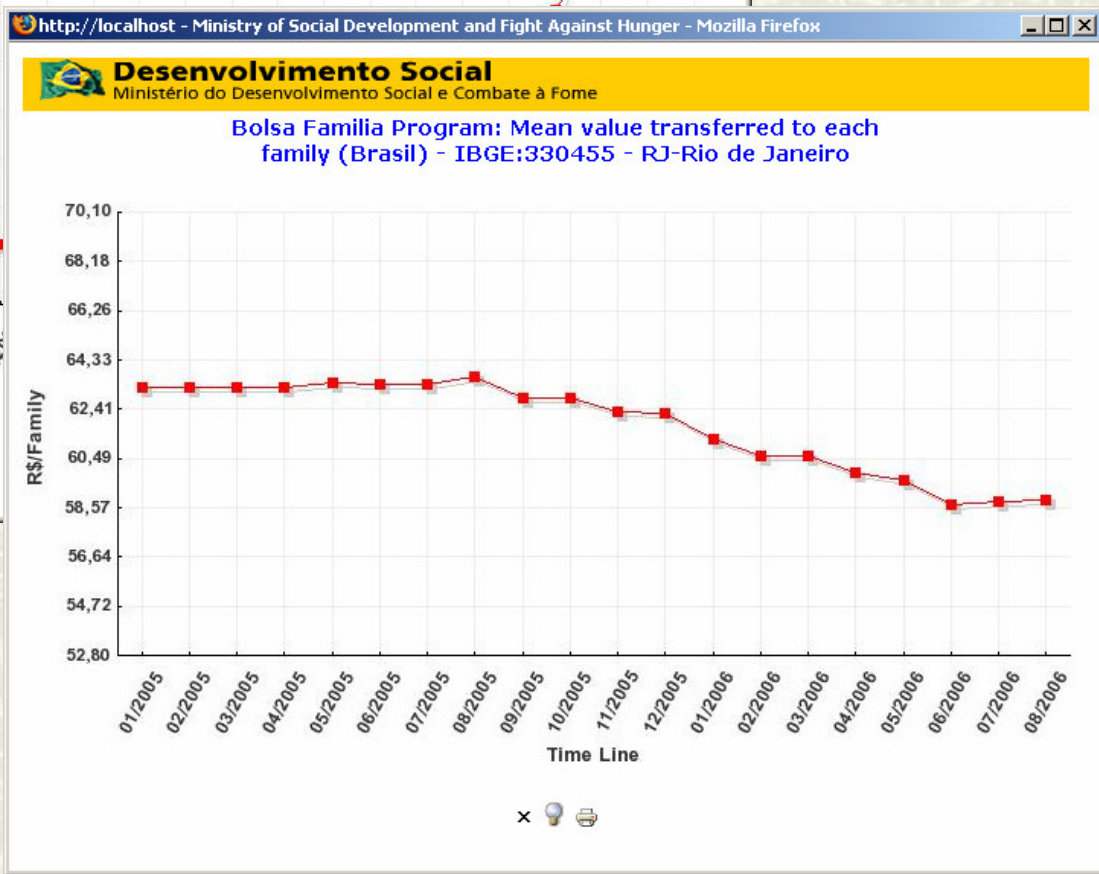
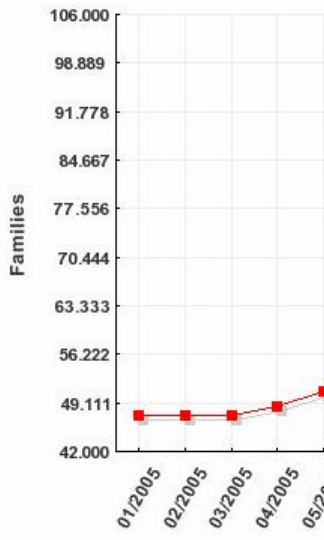
Amount of financial help.

September 2006

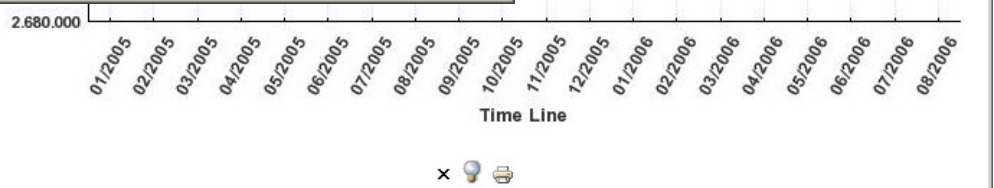
Cai

Bolsa Familia Program: Number of beneficiaries families (Brasil) - IBGE:330455 - RJ-Rio de Janeiro

Graphics of financial help for each family



Mean value transferred (Brasil)
Rio de Janeiro



Combination of two graphics

September 2006

Cai

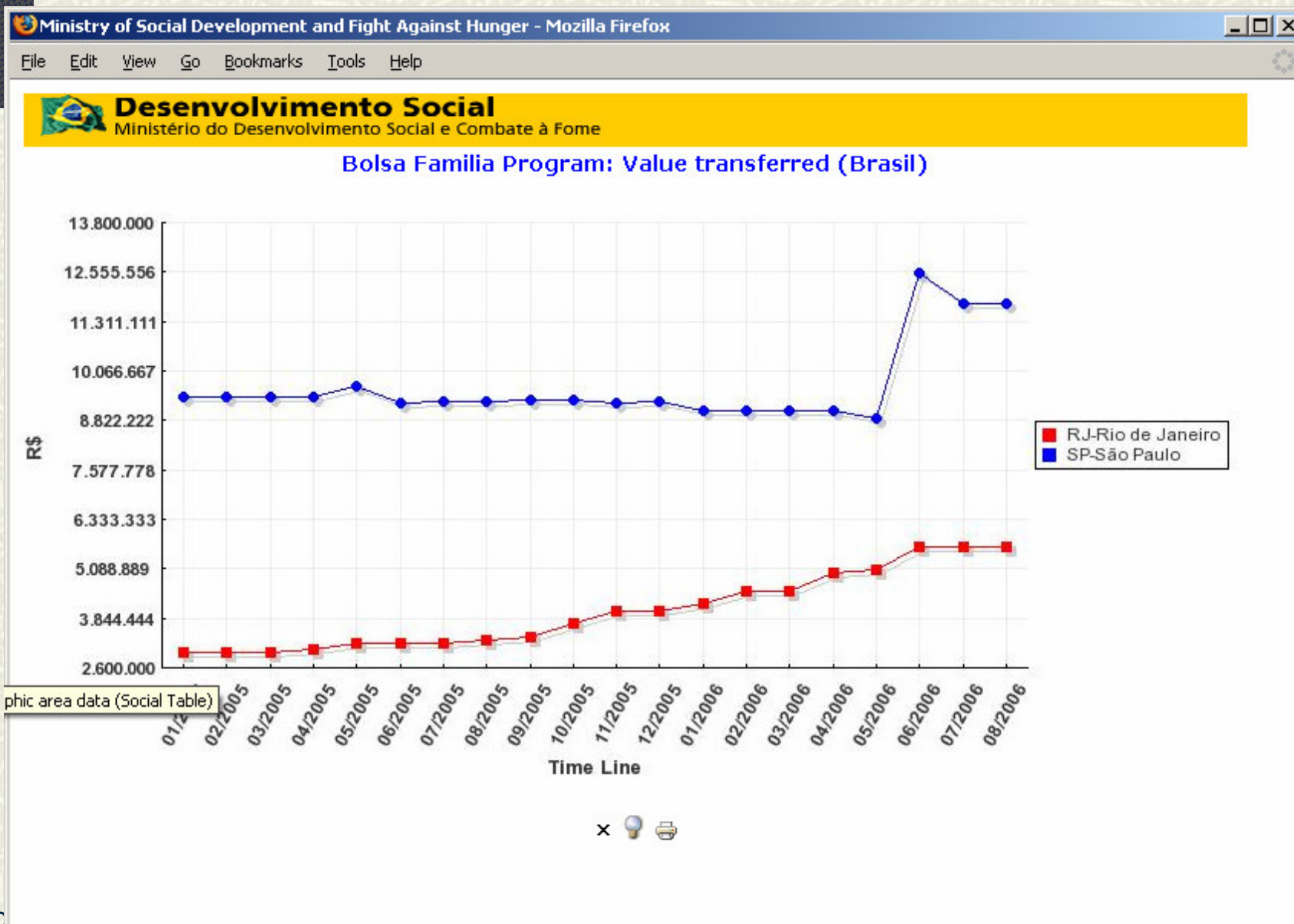


Comparing two or more geographic areas

- # This feature allows a comparative analysis between up to three geographic regions.
- # The selection can be done through geographic boundary or close analysis values.



Comparing the amount of financial help





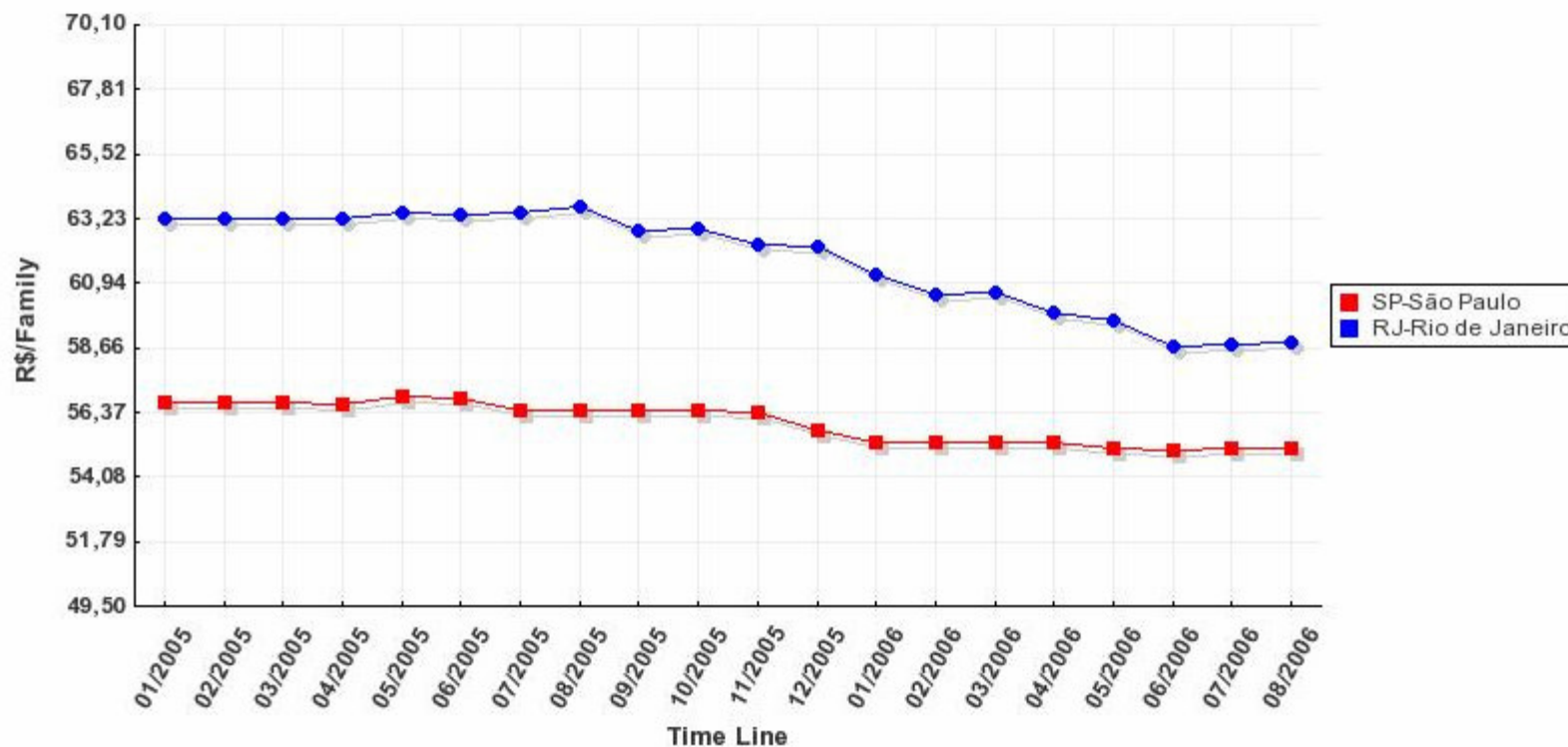
Comparing the financial help for each family

Ministry of Social Development and Fight Against Hunger - Mozilla Firefox
File Edit View Go Bookmarks Tools Help



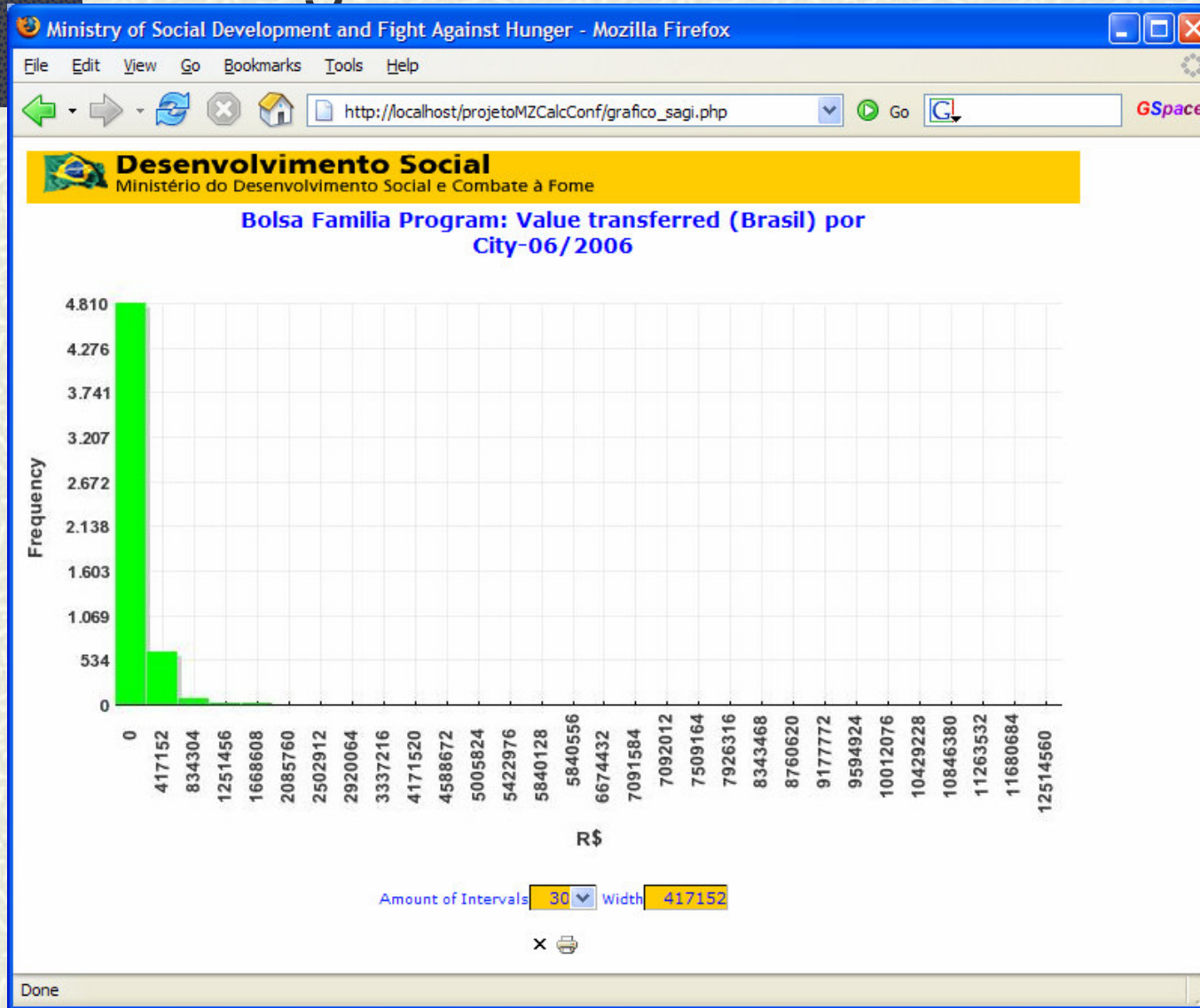
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Bolsa Familia Program: Mean value transferred to each family (Brasil)





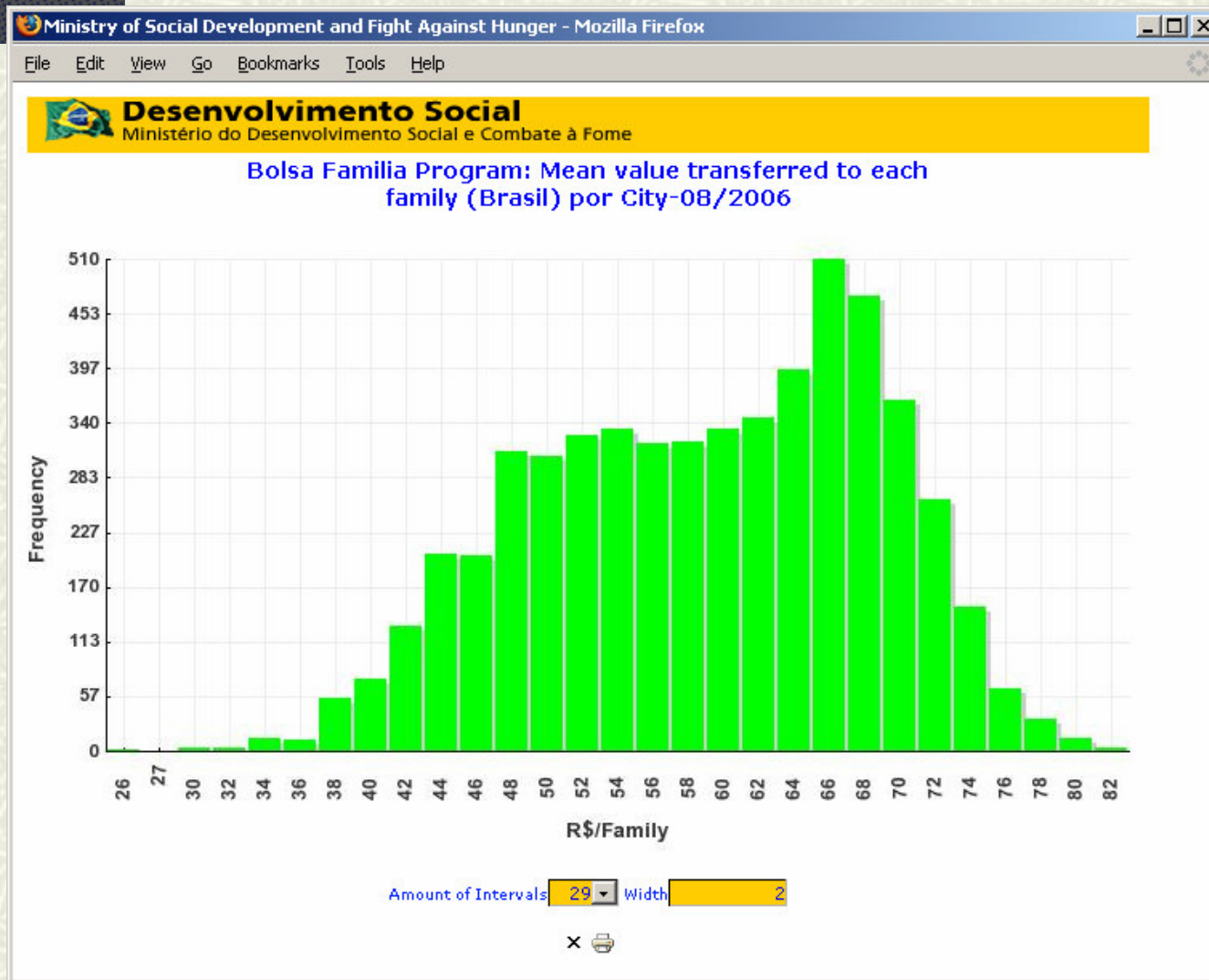
Histogram



Financial Value Transferred to the cities covered by the Bolsa Familia Program



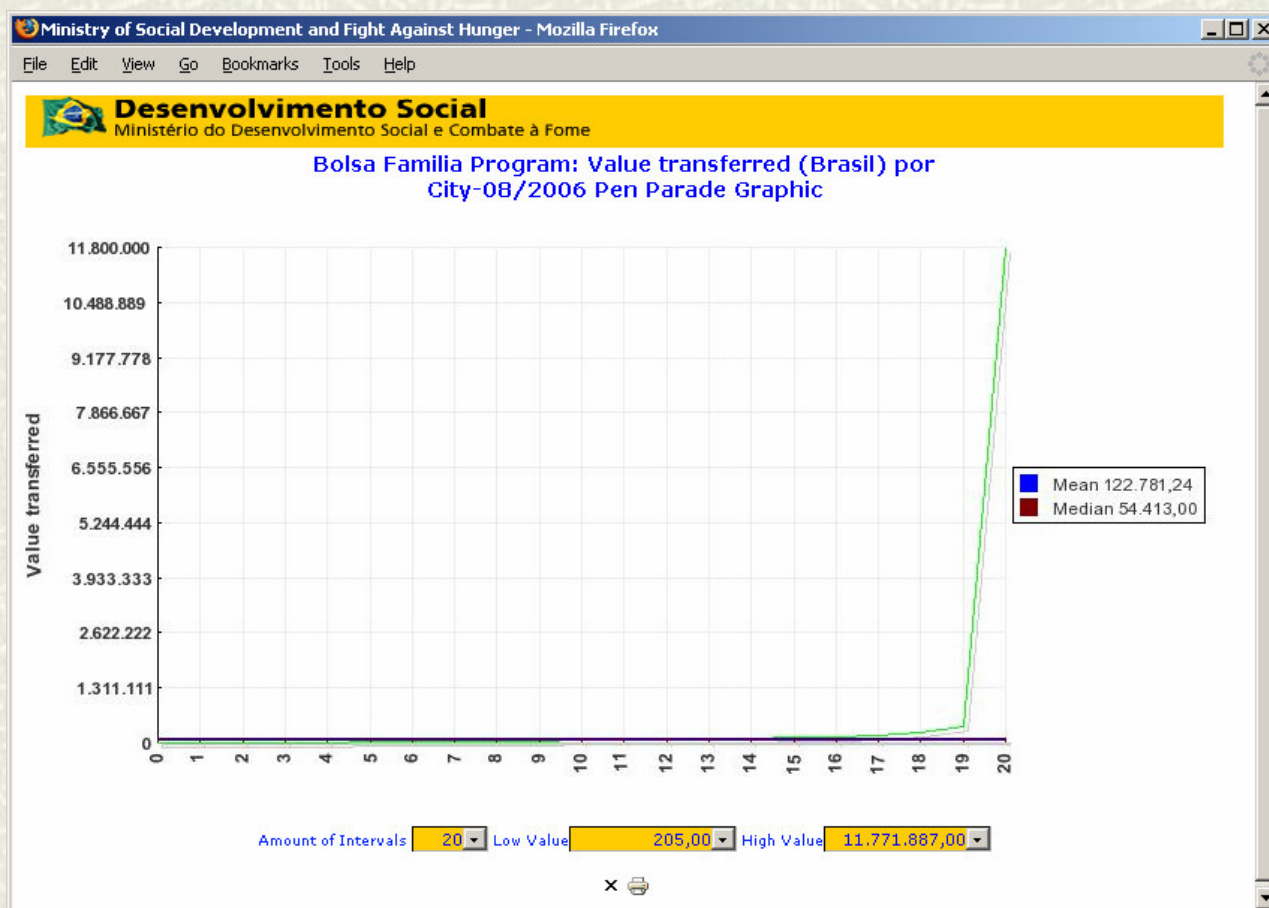
Histogram



Mean value transferred to each family of the Bolsa Familia Program in August 2006.



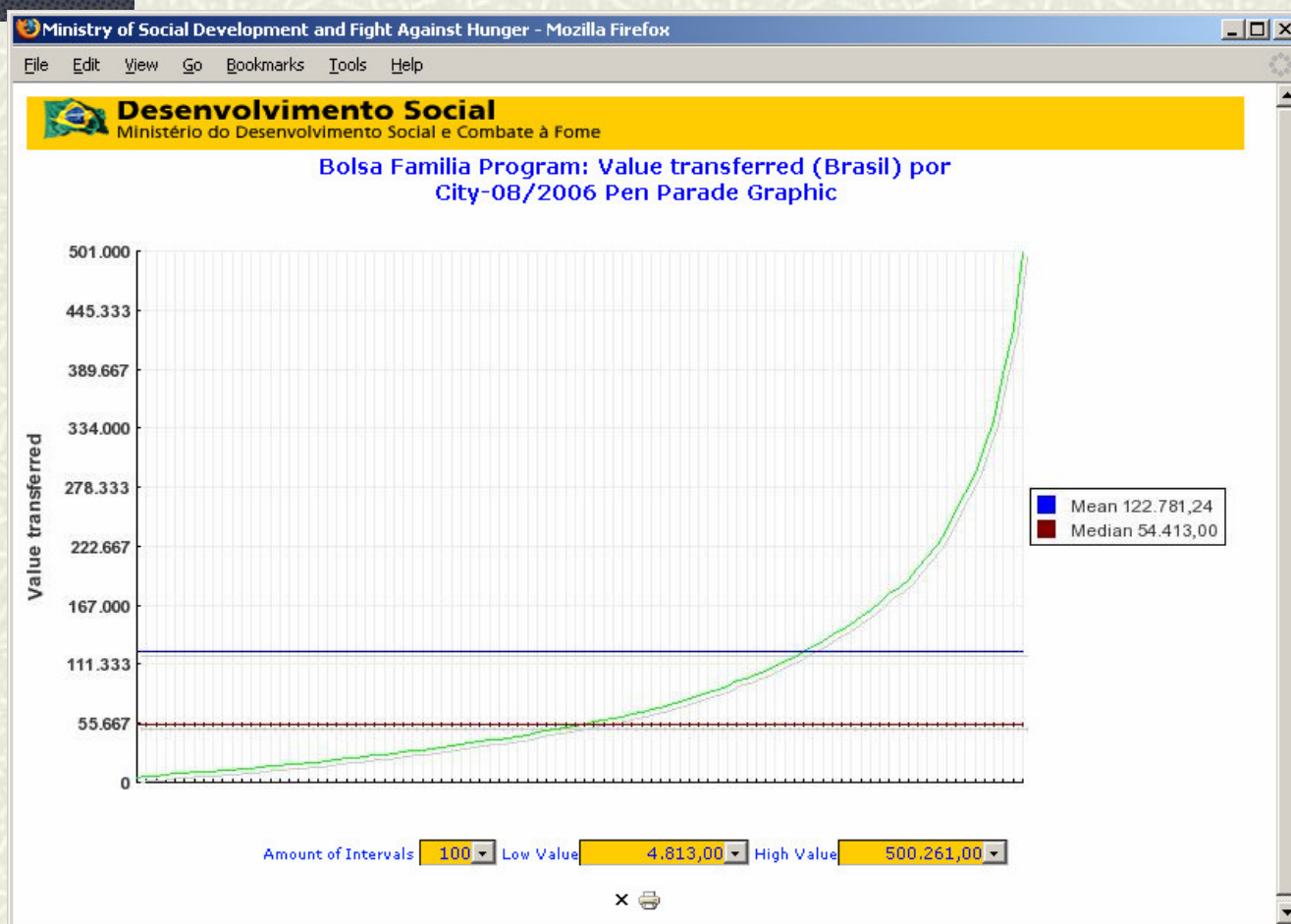
Pen Parade Graphics



- Financial value transferred to the cities.
- Graphics showing 100% of the distribution



Pen Parade Graphics

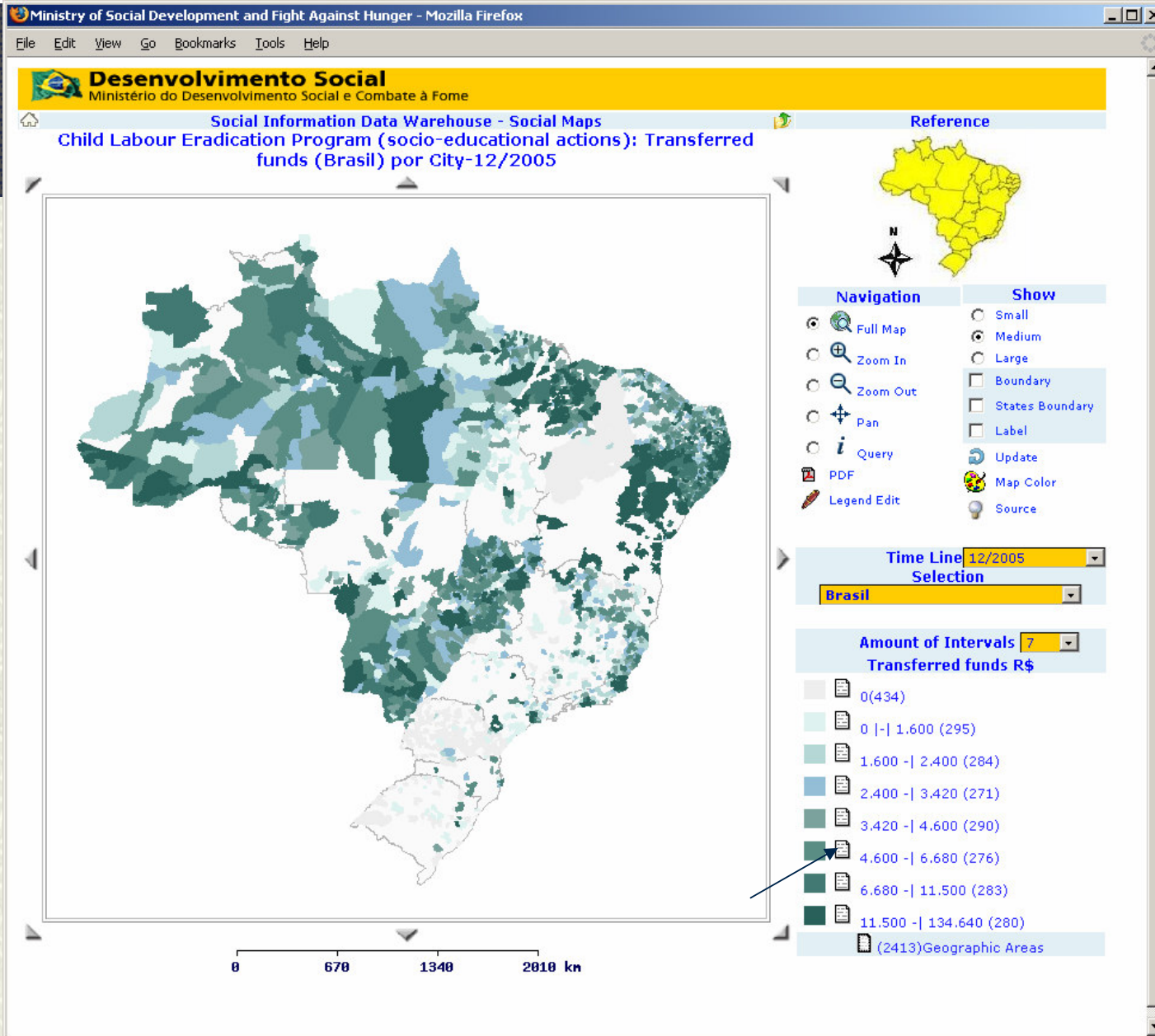


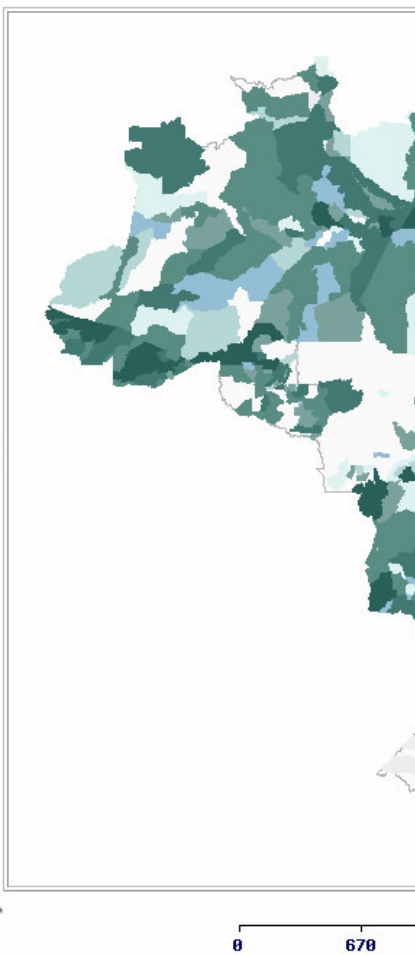
- # Financial Value Transferred to the cities.
- # Graphics showing 90% of the distribution



System Integration

- # From Georeferenced view is possible to access other information about cities in the data warehouse.
- # Example
 - PETI Bolsa – Financial Help for the Cities in October 2005.
 - PETI – Program Against Child Labour





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**Child Labour Eradication Program (socio-educational actions):
Transferred funds (Brasil) por City-12/2005**

id	Geographic Unit	R\$
210870	MA-Pio XII	4.900
260380	PE-Capoeiras	4.980
110032	RO-São Miguel do Guaporé	5.000
120005	AC-Assis Brasil	5.000
120039	AC-Porto Walter	5.000
130040	AM-Barcelos	5.000
130070	AM-Boca do Acre	5.000
130160	AM-Fonte Boa	5.000
130270	AM-Manicoré	5.000
130320	AM-Novo Airão	5.000

Register(s) 276

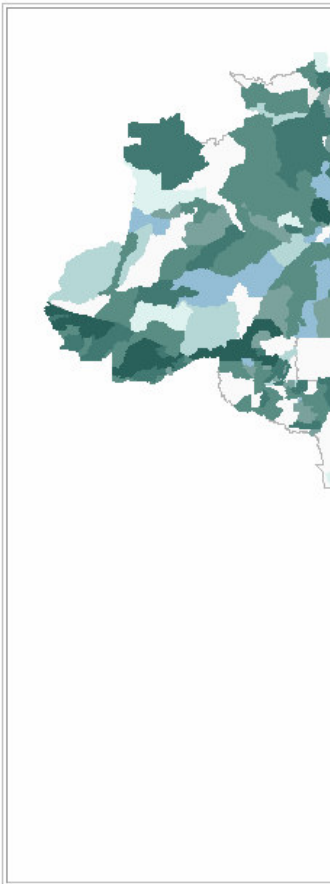


Ministry of Social Development and Fight Against Hunger

File Edit View Go Bookmarks Tools Help

Desenvolvimento Social
Ministério do Desenvolvimento Social e Combate à Fome

Social Information
Child Labour Eradication Programs
Funds



8

Mozilla Firefox

File Edit View Go Bookmarks Tools Help

http://10.68.12.130/mi2005/miv2006/consulta_cidade_geral.php

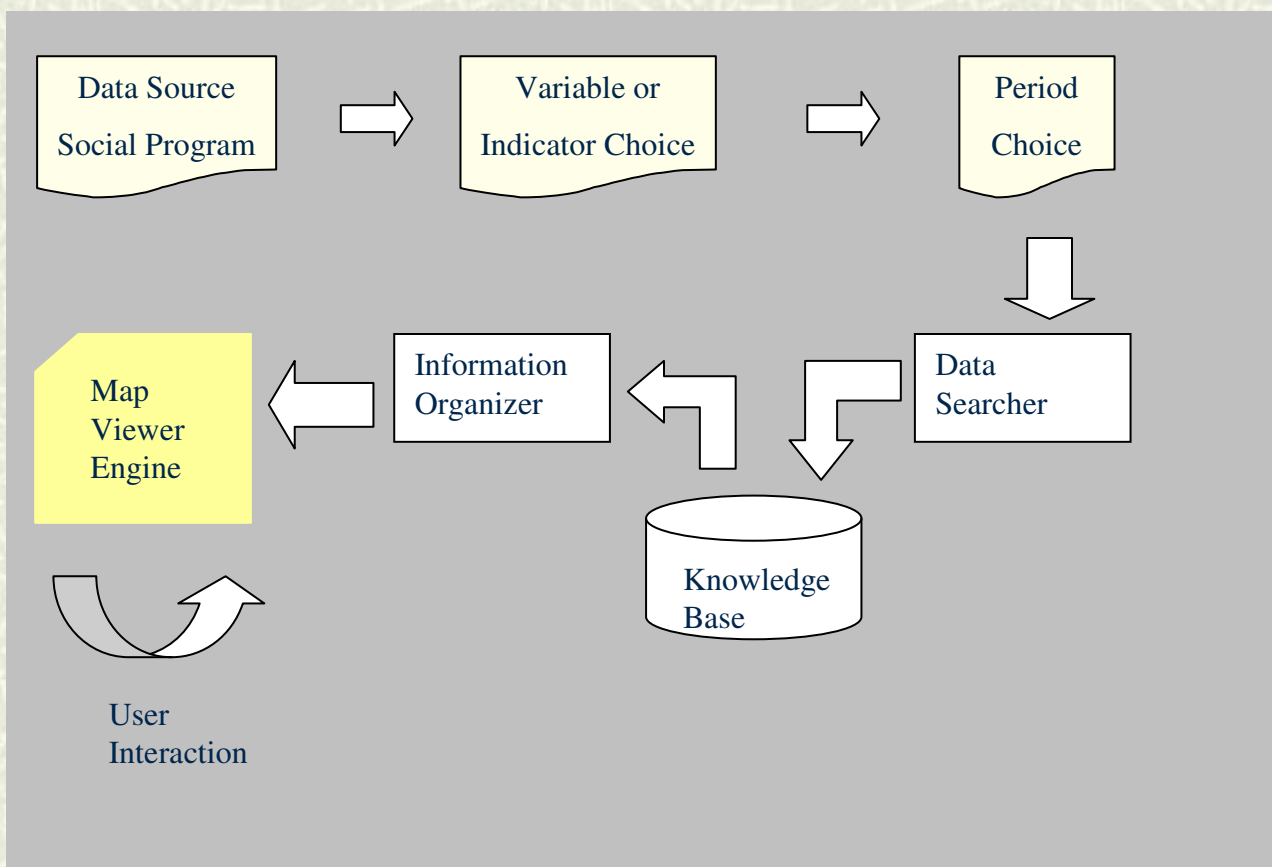
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[Data source](#)

Variable / Indicator	Value	
Municipality		
N.	1	
State	AM	
Municipality	BARCELOS	
IBGE code	130040	
Municipal Information		
Territorial area	-	Km² 122.476
Poor Families Estimative PNAD 2001	-	Amount 2.414
Population	-	Population (2005) 32.169
General Information		
Financial Aid for Exporter States - FEX	12/2005 (R\$)	16.128,60
Municipalities Participation Fund - FPM	12/2005 (R\$)	617.454,00
The Maintenance and Development for the Fundamental Education and Teacher's Appreciation Fund - FUNDEF	12/2005 (R\$)	297.788,00
LC 87 96	12/2005 (R\$)	3.724,71
Cash Transfer		
Gas Grant - Auxílio Gás	12/2005	Amount of families 178
		Total value 2.670,00
Food Grant - Bolsa Alimentação	12/2005	Amount of families 16
		Total value 240,00
School Grant - Bolsa Escola	12/2005	Amount of families 87
		Total value 1.875,00
Bolsa Família Program - Bolsa Família	12/2005	Amount of families 1.024
		Total value 68.887,00
Resources from Cash Transfer Programs	12/2005 (R\$)	73.672,00
Social Assistance		
Continuous Assistance Benefit - Elderly and Disabled People - BPC	12/2005	Disabled beneficiaries (PCD) 125
		Value (PCD) 52.343,66
	12/2005	Elderly beneficiaries 104
		Value (Elderly) 31.318,56



Structure of the Solution





Ways to feed the map engine

- # Build the query manually.
- # Read the structure of data from database and show the result of the query in a map.
- # User can build the query from available data in data warehouse.



Map Engine Configuration

```
<?
/*****
Database conection
*****/

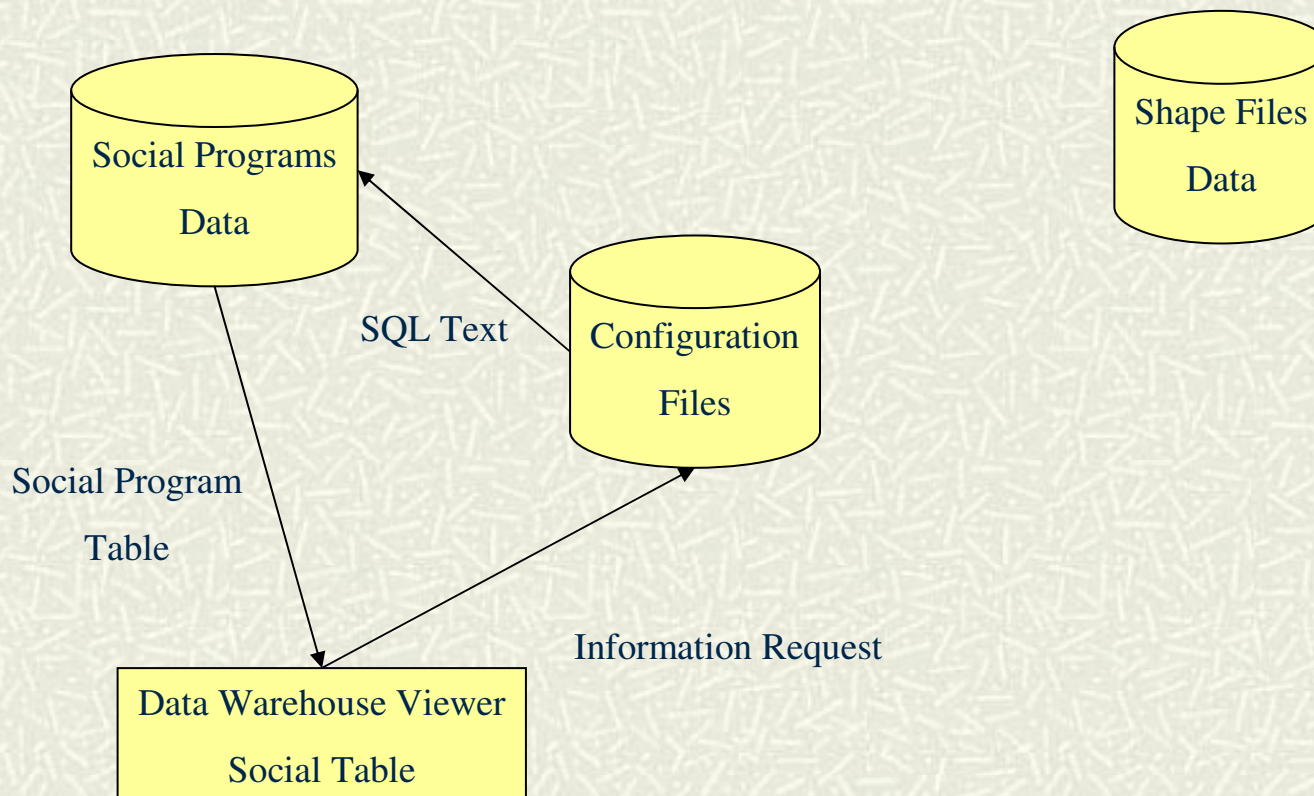
// IBM Server
$mapas_host = "10.68.12.245";
$mapas_port = "5432";
$mapas_dbname = "MI_2005_2006";
$mapas_user = "username";
$mapas_password = "password";
/*****

Files path
*****/

$mapas_imagePath = "/dados/guilherme/www/projetoMZ/tmp_img/";
$mapas_url = "tmp_img/";
$mapas_ajaxURL = "/mi/projetoMZ/ajaxBusca.php";
?>
```

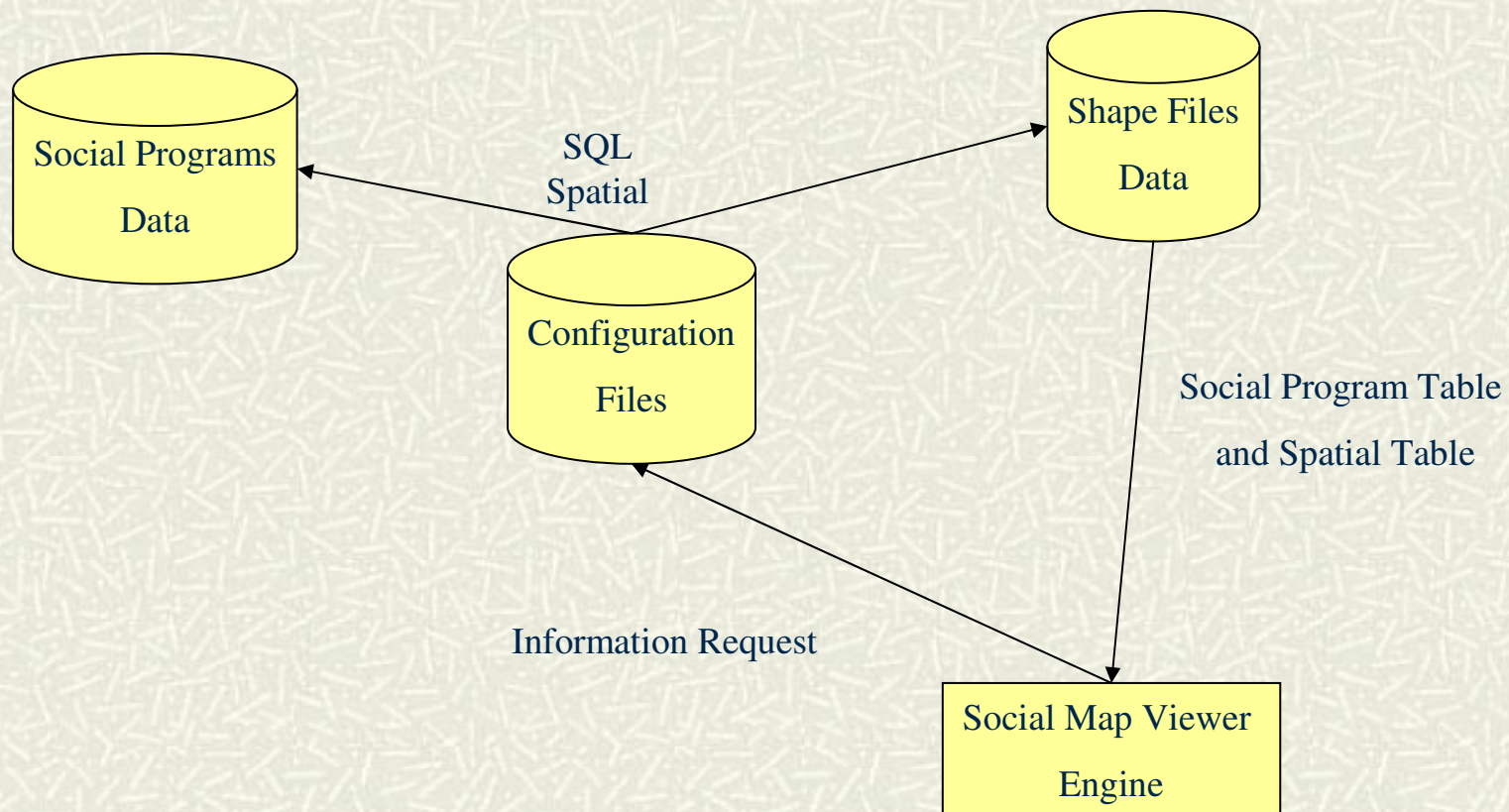


Data Base of the Solution



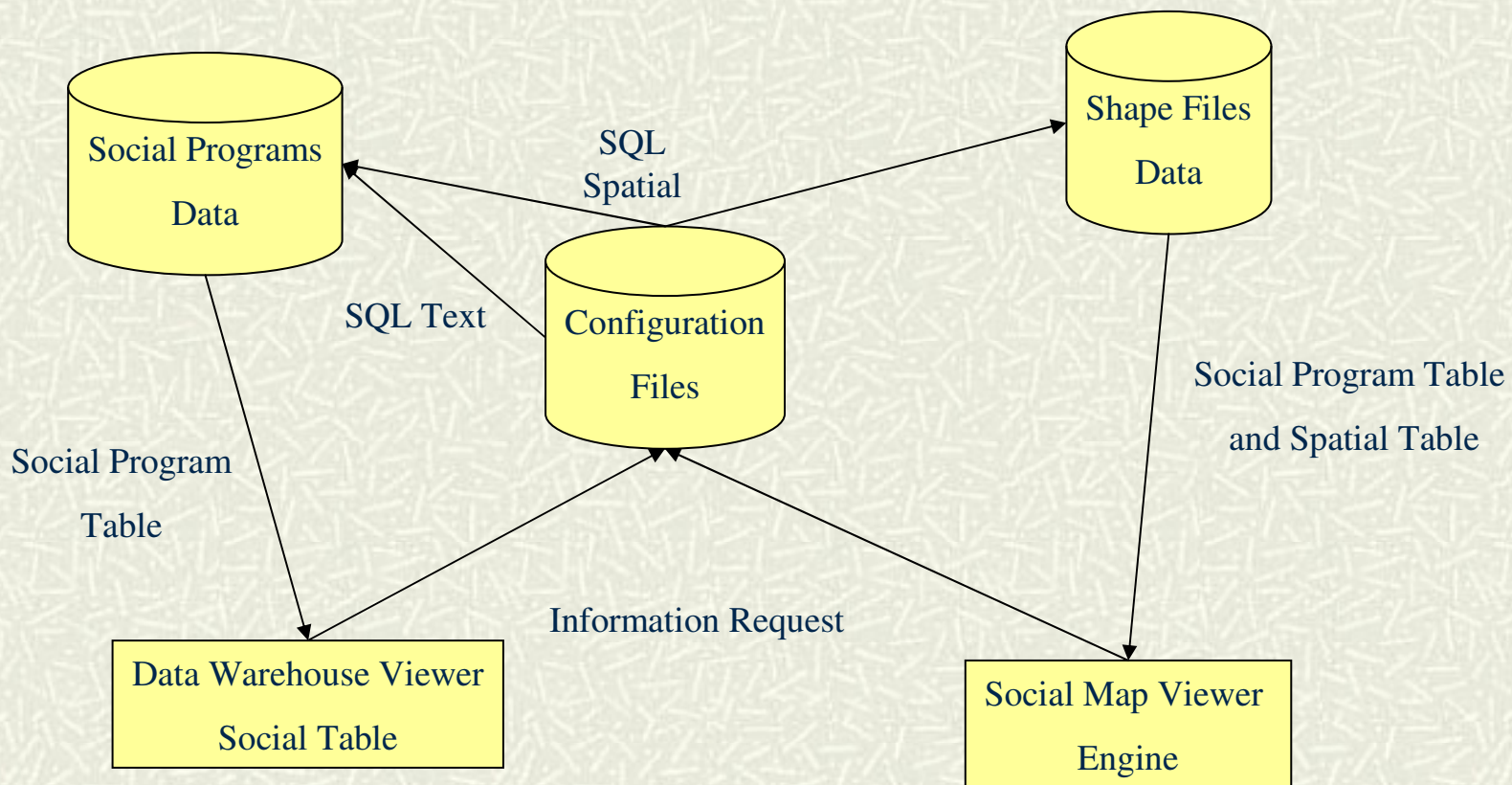


Data Base of the Solution





Data Base of the Solution





Build the Query Manually

MI Mapas 2006 - Microsoft Internet Explorer provided by MDS

Arquivo Editar Exibir Favoritos Ferramentas Ajuda

Portal DGIRT

Área geográfica:

Title:

Sub Title:

Unit:

Group:

Geographic Area:

SqlMapa:

```
select distinct c.gid, c.the_geom, bf_qtd_fam as  
valortotal , c.nome, c.ibge as codigo  
from tb_prog_mi_mes_mu l, shp_munic c  
where l.codigo=c.ibge and mes_ano='[valor] '  
and bf_qtd_fam >0
```

Fonte:

Página html da Fonte:

Decimal:

Variação no tempo:

Tempo:

SqlTempo:

```
select distinct mes_ano, to_char(mes_ano, 'mm/yyyy') from  
tb_prog_mi_mes_mu where bf_qtd_fam >0  
order by mes_ano
```

SqlGráfico:

```
select bf_qtd_fam, to_char(mes_ano, 'mm/yyyy') from  
tb_prog_mi_mes_mu a where codigo=[valor] and bf_qtd_fam >0  
order by mes_ano asc
```

Indicador no DICI-VIP:

Fome Zero:

Para Produção:

Dados Estatísticos:

Tipo de Legenda:

Tipo de Mapa:



id	nome	rel_mes_mu	rel_mes_estad	rel_anos_mu	rel_anos_estad	triz_informac	triz_fome_ze	categoria_mi	categoria_mif	lunas_mes_n	lunas_mes_est	lunas_anos_n	lunas_anos_est	calcho_nivel	calcho_nivel_2	calcho
		bool	bool	bool	bool	bool	bool	varchar	varchar	varchar	varchar	varchar	varchar	varchar	varchar	varchar
1	...	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	4000#Transferê	2200#Fome Zer	bf_qtd_fam#bf	bf_qtd_fam#bf	bf_qtd_fam#bf	bf_qtd_fam#bf	Qtd. Familias#V	Qtd. Familias#V	Qtd. f
2	...	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	4000#Transferê	2200#Fome Zer	ca_qtd_fam#ca	ca_qtd_fam#ca	ca_qtd_fam#ca	ca_qtd_fam#ca	Qtd. Familias#V	Qtd. Familias#V	Qtd. f
3	...	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	4000#Transferê	2200#Fome Zer	ag_qtd_fam#ai	ag_qtd_fam#ai	ag_qtd_fam#ai	ag_qtd_fam#ai	Qtd. Familias#V	Qtd. Familias#V	Qtd. f
4	...	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	4000#Transferê	2200#Fome Zer	ba_qtd_fam#b	ba_qtd_fam#b	ba_qtd_fam#b	ba_qtd_fam#b	Qtd. Familias#V	Qtd. Familias#V	Qtd. f
5	...	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	4000#Transferê	2200#Fome Zer	be_qtd_fam#b	be_qtd_fam#b	be_qtd_fam#b	be_qtd_fam#b	Qtd. Familias#V	Qtd. Familias#V	Qtd. f
6	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	5000#Assistênc	2200#Fome Zer	bpc_ppd_ben#	bpc_ppd_ben#	bpc_ppd_ben#	bpc_ppd_ben#	Beneficiários (PF	Beneficiários (PF	Benef
7	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		fpm_vl	fpm_vl	fpm_vl	fpm_vl	(R\$)	(R\$)	(R\$)
8	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		itr_vl	itr_vl	itr_vl	itr_vl	(R\$)	(R\$)	(R\$)
9	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		iof_vl	iof_vl	iof_vl	iof_vl	(R\$)	(R\$)	(R\$)
10	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		lc_87_96_vl	lc_87_96_vl	lc_87_96_vl	lc_87_96_vl	(R\$)	(R\$)	(R\$)
11	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		lc_87_96_1579	lc_87_96_1579	lc_87_96_1579	lc_87_96_1579	(R\$)	(R\$)	(R\$)
12	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		cide_vl	cide_vl	cide_vl	cide_vl	(R\$)	(R\$)	(R\$)
13	...	TRUE	TRUE	TRUE	FALSE	TRUE	FALSE	2000#Informaç		fex_vl	fex_vl	fex_vl	fex_vl	(R\$)	(R\$)	(R\$)
14	...	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	2000#Informaç		fundef_vl	fundef_vl	fundef_vl	fundef_vl	(R\$)	(R\$)	(R\$)
15	Tota	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	cisternas_mds_c	cisternas_mds_c	cisternas_mds_c	cisternas_mds_c	MDS Acumulado	MDS Acumulado	MDS /
16	udáv	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	cartilhas_qtd_al	cartilhas_qtd_al	cartilhas_qtd_al	cartilhas_qtd_al			Qtd. c
17	Mes	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	edu_mesa_capa	edu_mesa_capa	edu_mesa_capa	edu_mesa_capa			Capac
18		FALSE	FALSE	FALSE	FALSE	FALSE	FALSE	6000#Seguranç	2200#Fome Zer	paa_leite_litros						
19	lisa F	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	7000#Indicador	3300#Indicador	indicador_repas	indicador_repas	indicador_repas	indicador_repas	(%)	(%)	(%)
20	edio F	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	7000#Indicador	3300#Indicador	indicador_repas	indicador_repas	indicador_repas	indicador_repas	(R\$ por cisterna	(R\$ por cisterna	(R\$ p
21	ficiár	TRUE	TRUE	FALSE	FALSE	TRUE	FALSE	7000#Indicador		indicador_bpc_c	indicador_bpc_c	indicador_bpc_c	indicador_bpc_c	(%)	(%)	
22	ficiár	TRUE	TRUE	FALSE	FALSE	TRUE	FALSE	7000#Indicador		indicador_bpc_c	indicador_bpc_c	indicador_bpc_c	indicador_bpc_c	(%)	(%)	
23	bra D	FALSE	FALSE	TRUE	TRUE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	paa_dlm_qtd_ac	paa_dlm_qtd_ac	paa_dlm_qtd_ac	paa_dlm_qtd_ac			Agricu
24	bra D	FALSE	TRUE	TRUE	TRUE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	paa_dle_qtd_ac	paa_dle_qtd_ac	paa_dle_qtd_ac	paa_dle_qtd_ac			Agricultores Ber
25	PC / F	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	7000#Indicador		indicador_repas	indicador_repas	indicador_repas	indicador_repas	(%)	(%)	(%)
26	pa	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		indicador_fpm_c	indicador_fpm_c	indicador_fpm_c	indicador_fpm_c	(R\$)	(R\$)	(R\$)
27	ansfé	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		transferencias_v						
28	ito(2	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	1000#Informaç		prefeitos_eleito	prefeitos_eleito	prefeitos_eleito	prefeitos_eleito	Nome		
29	IDS e	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		indicador_transf						
30		TRUE	TRUE	TRUE	TRUE	TRUE	TRUE	1000#Informaç	1100#Dados Ge	populacao	populacao	populacao	populacao	Populacao (200	Populacao (200	Popul
31	orial	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	1000#Informaç		area	area	area	area	Km8sup2	Km8sup2	Km8s
32		TRUE	FALSE	TRUE	FALSE	TRUE	TRUE	1000#Informaç	1100#Dados Ge	idhm		idhm		valor	valor	valor
33		FALSE	TRUE	FALSE	TRUE	TRUE	FALSE	3000#Informaç		governadores_e		governadores_e		Eleito 2002	Eleito	
34	Famil	TRUE	FALSE	TRUE	FALSE	TRUE	FALSE	1000#Informaç		estimativa_famil		estimativa_famil		Qtd.		
35	ame	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		receita_orcamer	receita_orcamer	receita_orcamer	receita_orcamer			(R\$)
36	IDS e	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		indicador_rec_o						
37	otais	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		mds_recursos_v	mds_recursos_v	mds_recursos_v	mds_recursos_v			(R\$)
38	os Pr	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	4000#Transferê		indicador_rec_bi	indicador_rec_bi	indicador_rec_bi	indicador_rec_bi	(R\$)	(R\$)	(R\$)
39	de	FALSE	FALSE	TRUE	FALSE	TRUE	FALSE	7000#Indicador		indicador_transf						
40	do F	TRUE	TRUE	FALSE	FALSE	TRUE	TRUE	7000#Indicador	3300#Indicador	indicador_mds_c	indicador_mds_c			(R\$ por familia)	(R\$ por familia)	
41	locac	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	7000#Indicador		pfmc_vl	pfmc_vl	pfmc_vl	pfmc_vl	(R\$)	(R\$)	(R\$)
42	C - T	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	7000#Indicador		pfmc_ben_meta	pfmc_ben_meta	pfmc_ben_meta	pfmc_ben_meta	Crianças / Adole	Crianças / Adole	Crianç
43	dos	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	5000#Assistênc		dados.indicador	dados.indicador	dados.indicador	dados.indicador	(R\$)	(R\$)	(R\$)
44	os Pr	TRUE	TRUE	TRUE	TRUE	TRUE	FALSE	6000#Seguranç		indicador_rec_si	indicador_rec_si	indicador_rec_si	indicador_rec_si	(R\$)	(R\$)	(R\$)
45		FALSE	TRUE	FALSE	TRUE	TRUE	FALSE	2000#Informaç		fpe_vl		fpe_vl		(R\$)	(R\$)	(R\$)
46	D (esl	FALSE	TRUE	FALSE	TRUE	TRUE	TRUE	3000#Informaç	1100#Dados Ge	idhm		idhm		valor	valor	valor
47	asil	FALSE	FALSE	TRUE	TRUE	TRUE	FALSE	6000#Seguranç		coz_brasil_ben	coz_brasil_ben	coz_brasil_ben	coz_brasil_ben			Capac
48		TRUE	TRUE	FALSE	FALSE	TRUE	FALSE	5000#Assistênc		cras_qtde	cras_qtde	cras_qtde	cras_qtde	Qtde	Qtde	
49	ASA	TRUE	TRUE	FALSE	FALSE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	cisternas_asa_c	cisternas_asa_c	cisternas_asa_c	cisternas_asa_c	Qtd. de Cistern	Qtd. de Cistern	Qtd. c
50	Esta	TRUE	TRUE	FALSE	FALSE	TRUE	TRUE	6000#Seguranç	2200#Fome Zer	cisternas_estad	cisternas_estad	cisternas_estad	cisternas_estad	Qtd. de Cistern	Qtd. de Cistern	Qtd. c





Read the structure of data

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File Edit View Go Bookmarks Tools Help

http://localhost/raize/Mapas/ProjetoMZCalcConf/menu_mapas_conf.p

Desenvolvimento Social
Ministério do Desenvolvimento Social e Combate à Fome

Social Information Data Warehouse - Social Maps [Main Page](#)  

Amount of Themes: 458

- Municipal Information
- General Information
- State information
- Cash Transfer
 - Bolsa Família Program - Bolsa Família
 - Amount of families*
 - Year / City
 - Year / State
 - Amount of families
 - Month / City
 - Month / State
 - Total value
 - Month / City
 - Month / State
 - Year / City
 - Year / State



User building the query

Ministério do Desenvolvimento Social e Combate à Fome - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

Desenvolvimento Social
Ministério do Desenvolvimento Social e Combate à Fome

Calculadora de Indicadores Dinâmica [Main Page](#)

Escolha as informações para elaborar a expressão desejada.

BOLSA FAMÍLIA(BF_VL) (MUNICIPIO/MENSAL) / BOLSA FAMÍLIA(BF_QTD_FAM) (MUNICIPIO/MENSAL)

Período: 08/2006

Quantidade de temas: 429

- Auxilio Gás
- Bolsa Alimentação
- Bolsa Escola
- Bolsa Família
 - Qtd. Famílias*
 - Qtd. Famílias
 - Mensal / Estado
 - Mensal / Municipio
 - Valor Total
 - Anual / Estado
 - Anual / Municipio
 - Mensal / Estado
 - Mensal / Municipio

Used Technologies





Technologies

Client Browser

(IE Explorer,
Firefox,
Mozilla)

Jbox (Java)
JavaScript

Aplication Server

Apache (WEB Server)

PHP (4.x)

MN Mapserver

PHP MapScript



PostGreSQL
PostGis



Development

- # Browser used for the tests IExplorer and FireFox.
- # It is required the installation of Java Virtual Machine in the client browser.
 - JBox requires JVM.
- # Development Language PHP 4.x
 - PHP MapScript until 2005 June was not compiled to PHP version 5
- # MN MapServer does not require PHP MapScript
 - It was used to give more flexibility to the application.



Future tasks

- # Tuning the database retrieve time for each query.
- # Persist the user maps
- # Improve the user interface
- # Develop a CD with the solution to be distributed



Questions

Thank You Very Much

Caio Nakashima

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- www.mds.gov.br

Staff

- Caio Nakashima (Map Viewer)
- Carlos Eduardo de Andrade Brasileiro (DBA)
- Marcelo Gomes Gadelha (Data Warehouse Viewer)

