Colombia: explaining improved wellbeing despite economic recession and violence

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- Outline

- Question
- Main claim
- Background late 90's Colombia: economic growth and poverty, violence, other social indicators
- Data & Pov Lines
- Multidimensional poverty indicators (bidimensional and tridimensional)
- Conclusions and caveats

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• Question

Can we explain the *improved* well-being of Colombians between 1997 and 2003, using multidimensional poverty?

	1997	2003	Dif
Current living conditions (all population)			
1 Bad	6.8	5.1	-1.7
2 Fair	54.6	44.3	-10.3
3 Good/very good	38.6	50.6	12.0
Total	100.0	100.0	
Current living conditions (the poor by income)			
1 Bad	10.3	6.5	-3.8
2 Fair	66.5	54.4	-12.1
3 Good/very good	23.2	39.1	15.9
Total	100.0	100.0	

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• Question-Puzzle

PUZZLE: better well-being 1997-2003

- After the worst economic recession (1998), that reversed the levels of poverty to 1988 levels.

- With persistently high levels of violence and insecurity.

- But with persistent improvements in social indicators (education, sanitation, etc.)

- 180 degree change of president/ security policy (since late 2002)

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• Main Claim

▪ *Inconclusive evidence with 3 bi-dimensional* poverty indices: income-security, income-education, income-home_crowding 2 deteriorate and 1 improves

(each case we run 8 types: Intersection, Union, Chakravarty 1 and 2, Watts, Bourguignon-S&C, Leontief, Tsui)

▪ *Mixed evidence with tri-dimensional poverty* indices income-security-education. Depends on the type of index.

▪ *Discrepancy* between wellbeing improvements and multidimensional evidence could be due to *relevant missing dimensions*

  ▪ Inter-temporal dimension (improving violence trend)
  ▪ Redistributive impact of social programs enlarged 90's.

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- Background

- Main public policy concerns of Colombians
- Violence and security
- Economic growth and poverty trends
- Trends on social indicators

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- **Main concerns of Colombians in 2000:** *violence, employment, education*

▉ According to the *Latinobarometro* surveys 2000 [Gaviria (2001) and Caroline Mosser (1999)] Nearly four out of every five Colombians thought that public policy priorities were either

  ▪ Violence (38%)

  ▪ Unemployment-income poverty (25%)

  ▪ Education (15%)

  (followed by corruption and low wages)

Source: Velez (2002) Colombia Poverty Report, World Bank.

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• Colombia: high level of violence and increasing homicide rates peaked in early 90's

Figure 1. Total recorded intentional homicides

	Country	Description	Amount
1	Colombia	0.61 per 1000 people	
2	South Africa	0.49 per 1000 people	
3	Jamaica	0.32 per 1000 people	
4	Venezuela	0.31 per 1000 people	
5	Russia	0.20 per 1000 people	
6	Mexico	0.13 per 1000 people	
7	Estonia	0.10 per 1000 people	
8	Latvia	0.10 per 1000 people	
9	Lithuania	0.10 per 1000 people	
10	Belarus	0.09 per 1000 people	

Source: Seventh United Nations Survey of Crime Trends and Operations of Criminal Justice Systems, covering the period 1998 - 2000 (United Nations Office on Drugs and Crime, Centre for International Crime Prevention)

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• Violence: linked to conflict, crime and drug-traffic
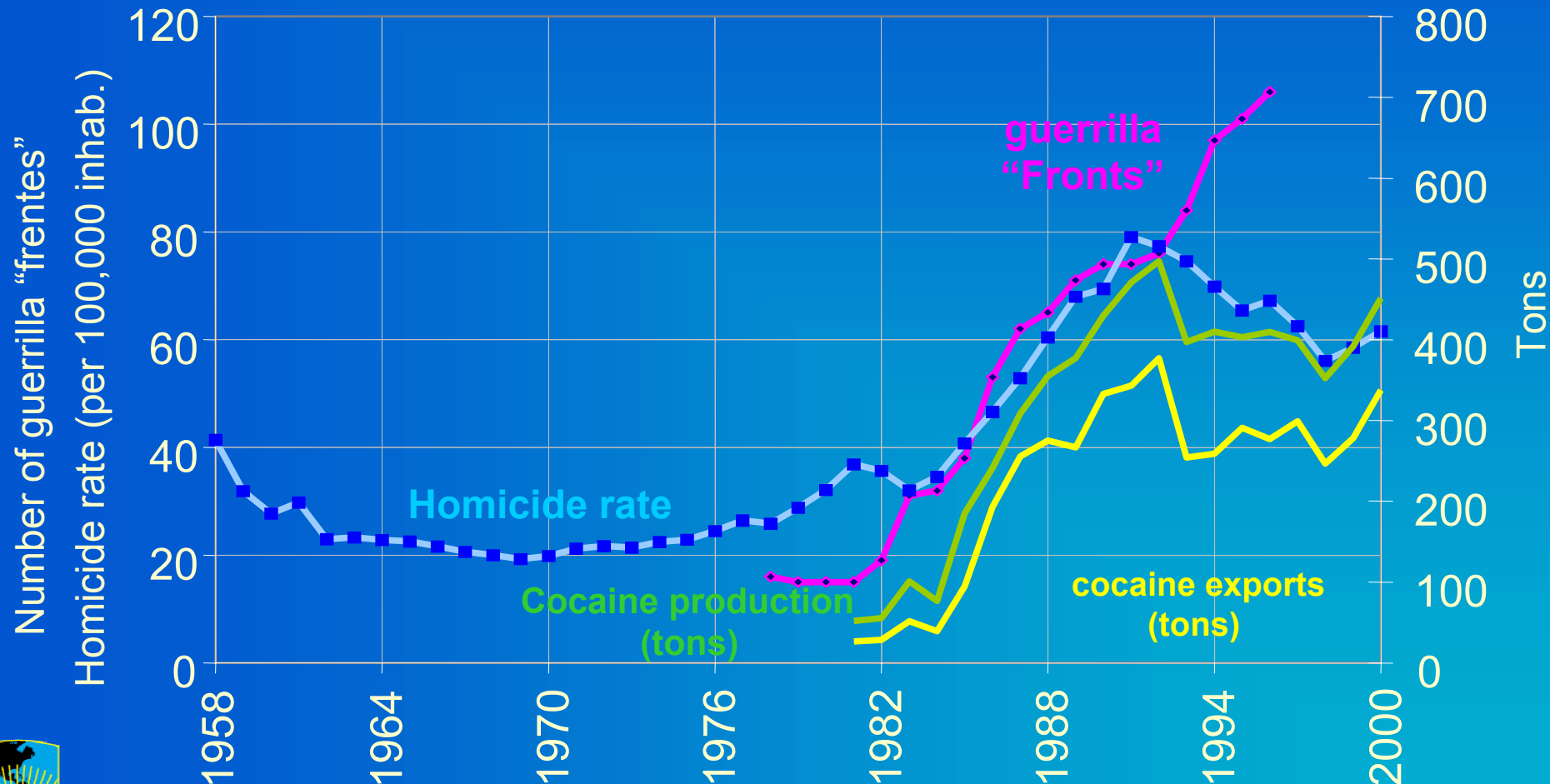
Source: Departamento Nacional de Planeacion. Cardenas (2002)

- Links from illegal drug trade to crime: *rents, technologies of crime and impunity*

- Guerrillas and paramilitaries collect **_rents_** of illegal drug trade (Collier, 2000).

- Difussion of **_technologies of crime_** (Gaviria, 2000). Diversification of crime: while homicide fell in the 90's, kidnapping and extorsion increased (Gaviria and Velez, 2002)

- **_Impunity:_** Lower probability of punishment due to judicial congestion (Gaviria, 2000)

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• Security ("feel secure in your neighborhood") did not change much

	1997	2003	Dif
Security			
0 Insecure	21.1	21.8	0.7
1 Secure	78.9	78.2	-0.7
Total	100.0	100.0	

• Economic growth and poverty trends

■ After 1998-99 recession, Lower income per-capita and higher poverty levels (a decade lost, 1988)

	1997	2003	Dif
Income per capita /PL			
Mean	2.09	1.83	-0.26
Median	0.94	0.88	-0.07
Income Poverty			
FGT0	0.53	0.58	0.05
FGT1	0.25	0.29	0.03
FGT2	0.16	0.18	0.02

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• Declining and increasingly volatile economic growth Colombia

Average growth   St. Dev
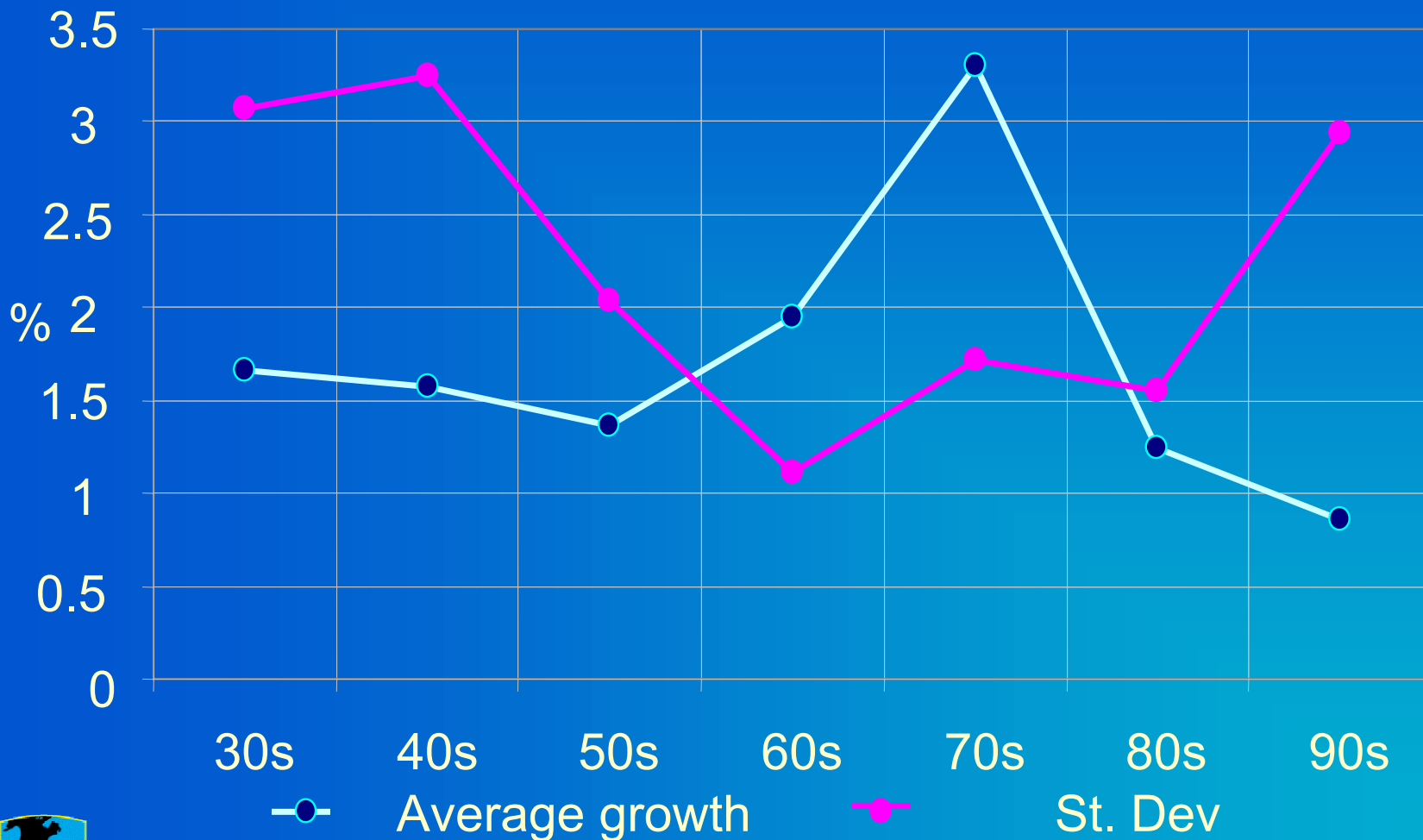
Source DNP 2002

Trends other social indicators: long term improvement of average years of schooling by cohort
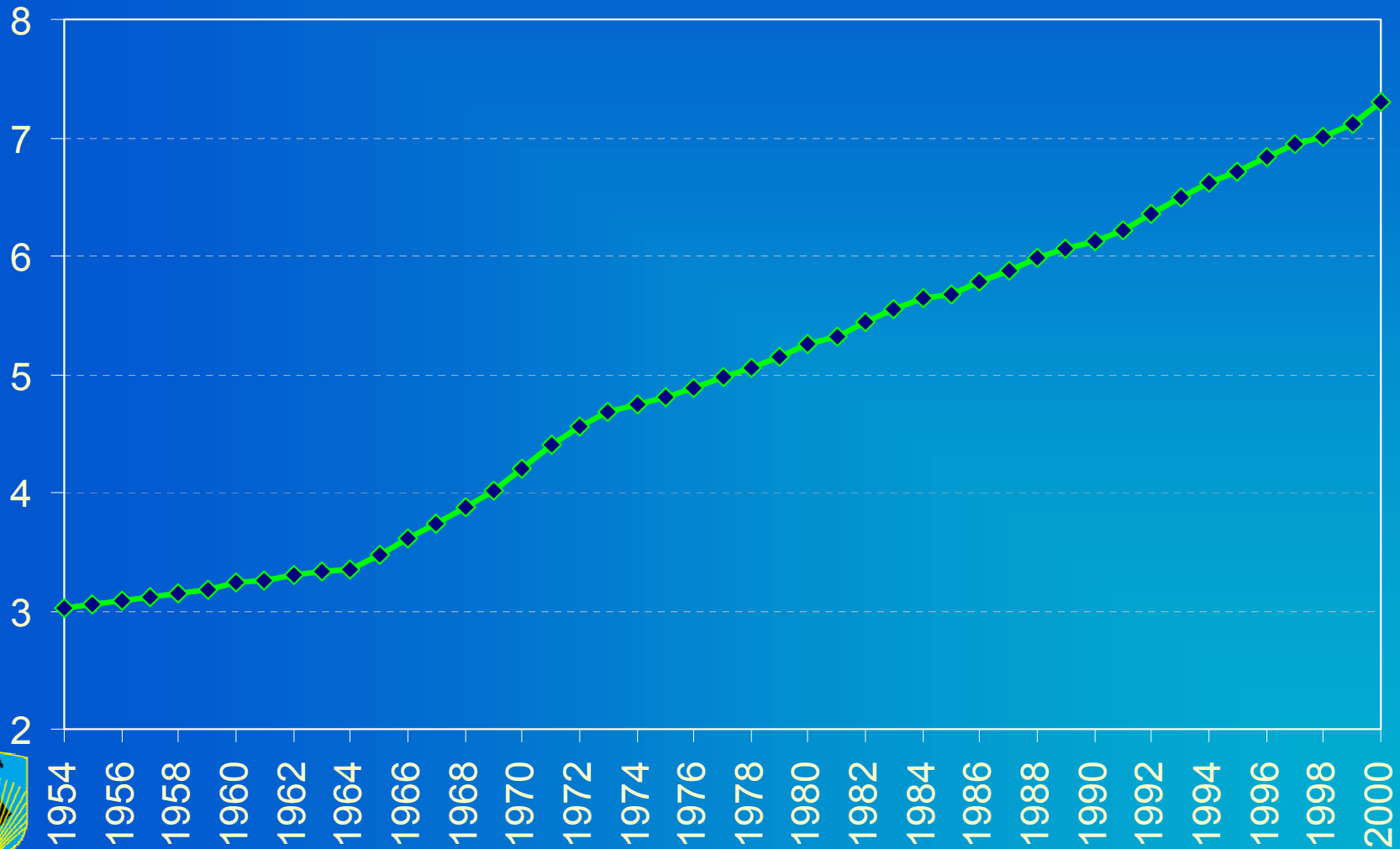
• Trends other social indicators: education, BNI and crowding

	1997	2003	Dif
Education -years of schooling WAPop			
Mean	6.29	6.92	0.64
Median	5.00	5.00	0.00
Std. Deviation	4.88	5.03	0.15
Education Poverty			
FGT0	0.43	0.37	-0.06
FGT1	0.28	0.23	-0.05
FGT2	0.22	0.17	-0.04

• The trends of BNIndex (1985-2003) show persistent long term improvements in the aggregate (45% TO 22%) and similarly for <u>all</u> components of BNI (*extreme poverty, access to water and sanitation, crowding, school attendance, economic dependence*)

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- Trends other social indicators: more rooms per capita BUT a little more crowding-poverty

	1997	2003	Dif
# of rooms per capita			
Mean	1.056	1.093	0.04
Median	0.833	1.000	0.17
Std. Deviation	0.845	0.820	-0.03
# of rooms per capita -Poverty			
FGT0	0.627	0.630	0.00
FGT1	0.246	0.288	0.04
FGT2	0.128	0.154	0.03

- Data

- Household surveys: Encuestas de Calidad de Vida (LSMS type), 1997 and 2003
- Income poverty lines: DANE domestic PL by city (12 cities, urban rest and rural)
- Other poverty lines: half of median

- Multidimensional poverty indicators

- Bidimensional poverty index *income-security*, (9 functional forms) :

poverty increased unambiguously

	1997	2003	Dif
Income - Security (weight: 0.5, 0.5)			
Intersec	0.112	0.133	0.021
Union	0.637	0.667	0.030
Chakr1	0.235	0.253	0.017
Chakr2	0.187	0.200	0.013
Watts	0.214	0.241	0.027
Bour_s	0.127	0.136	0.010
Bour_c	0.188	0.198	0.010
Leont	0.304	0.318	0.014
Tsui	1.342	1.365	0.023

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- ## Multidimensional poverty indicators

■ Bidimensional poverty index *income-crowding*, (9 functional forms) :

poverty increased unambiguously

Income - # of rooms per capita (weight: 0.5, 0.5)		
Intersec	0.418	0.452	0.034
Union	0.739	0.758	0.019
Chakr1	0.250	0.287	0.037
Chakr2	0.142	0.167	0.025
Watts	0.395	0.459	0.065
Bour_s	0.081	0.097	0.016
Bour_c	0.101	0.118	0.018
Leont	0.149	0.173	0.023
Tsui	1.732	1.797	0.065

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- ## Multidimensional poverty indicators

▪ Bidimensional poverty index *income-education*, (9 functional forms) :

poverty reduction almost unambiguously (except for the union)

	1997	2003	Dif
Income - education (weight: 0.5, 0.5)			
Intersec	0.309	0.283	-0.026
Union	0.651	0.664	0.013
Chakr1	0.266	0.257	-0.009
Chakr2	0.187	0.177	-0.010
Watts	0.391	0.391	0.000
Bour_s	0.126	0.116	-0.009
Bour_c	0.164	0.153	-0.011
Leont	0.252	0.234	-0.018
Tsui	3.066	2.994	-0.072

- Multidimensional poverty indicators

Tri-dimensional poverty index *income-education-security* (8 functional forms) :

poverty change ambiguous (2 vs 5)

	1997	2003	Dif
Tri-dimensional			
Income - education - Security (weight: 0.333, 0.3			
Intersec	0.056	0.060	-0.004
Union	0.731	0.735	-0.004
Chakr1	0.250	0.245	0.005
Chakr2	0.197	0.191	0.006
Bour_s	0.123	0.118	0.004
Bour_c	0.208	0.200	0.008
Leont	0.421	0.404	0.016

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- Conclusions and caveats

■ *Inconclusive evidence with 3 bi-dimensional* poverty indices: income-security, income-education, income-home_crowding 2 deteriorate and 1 improves

(each case we run 8 types: Intersection, Union, Chakravarty 1 and 2, Watts, Bourguignon-S&C, Leontief, Tsui)

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• Conclusions and caveats

- *Discrepancy* between wellbeing improvements and multidimensional evidence could be due to *relevant missing dimensions*

  - Inter-temporal dimension. Anticipation of improving violence trend, crime rates continued to fall after 2003 associated to the 180 degree change of president/ security policy (since late 2002)

  - Redistributive impact of social programs that were more than doubled as %GDP during the 1990's.

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• Conclusions and caveats

- Redistributive impact of social programs that were enlarged during the 1990's.

Cuadro 1.
Ejecución Gasto Social
(% del PIB)

Concepto	1990-1991	1996-1997	2000-2001
Educación	2.7	4.8	3.9
Salud	1.0	3.3	4.3
Seguridad social y Trabajo	2.5	6.1	4.4
Vivienda y otros	0.5	1.2	1.0
Gasto social Total	6.8	15.3	13.6

Fuente: Cálculos del autor con base en CEPAL.

Source: Nunez (2004)

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