



**BANCO DE LA REPÚBLICA**  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CEER) - CARTAGENA

**THE STATURE OF COLOMBIAN ELITE  
BEFORE THE ONSET OF  
INDUSTRIALIZATION, 1870 – 1919**

**Adolfo Meisel Roca  
Margarita Vega Acevedo**

The 3rd International Conference on Economics and Human Biology  
Université Marc Bloch, Strasbourg, June 22-24, 2006  
Session 3A, Saturday 24



**BANCO DE LA REPÚBLICA**  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CEER) - CARTAGENA

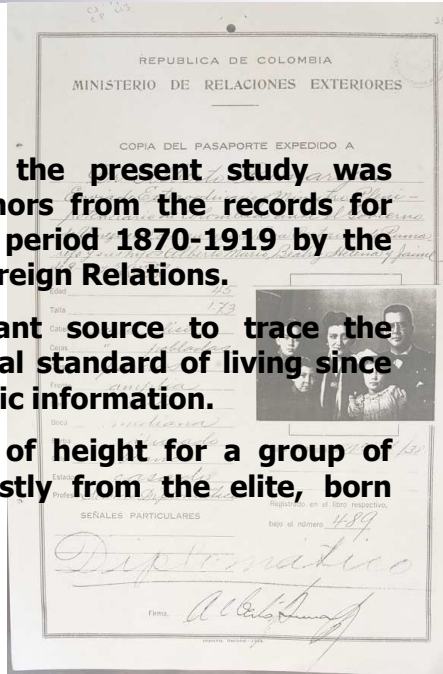
**THE STATURE OF COLOMBIAN ELITE BEFORE THE ONSET OF  
INDUSTRIALIZATION, 1870 – 1919**

- I. Introduction**
- II. The stature of the Colombian elite,  
1870-1919**
- III. Conclusions**



## I. Introduction

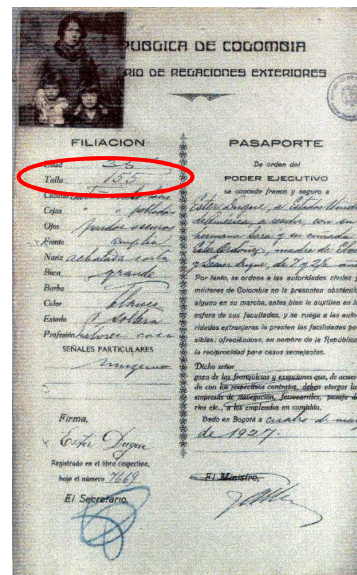
- The database used in the present study was constructed by the authors from the records for passports issued in the period 1870-1919 by the Colombian Ministry of Foreign Relations.
- This is a very important source to trace the evolution in the biological standard of living since it contains anthropometric information.
- We study the behavior of height for a group of 15.911 Colombians, mostly from the elite, born between 1870 and 1919.



## I. Introduction

- The quality of the information is very good, especially since it is available for a relatively long time period, for both men and women, and contains additional data, such as destination, reason for travelling, and place where the passport was issued.

### Passport





# I. Introduction

## Passports

REPUBLICA DE COLOMBIA  
MINISTERIO DE RELACIONES EXTERIORES

COPIA DEL PASAPORTE EXPEDIDO A

*Miguel Gustavo Rojas Pardo,*  
*a cargo en comisión del*  
*Ministerio de Guerra de*  
*Colombia.*

FILIACION

Edad: 35  
Talla: 177  
Cabello: cast. az.  
Ojos: oscuros  
Oreja: parde oscuras  
Frente: amplia  
Nariz: recta  
Boca: mediana  
Barba: ninguna  
Color: café  
Estado: soltero  
Profesión: Militar

SEÑALES PARTICULARES  
*Inscripción 1807733*  
*Inscripción 20785*  
*Inscripción 122*  
*Inscripción 20785*

Registrado en el libro respectivo,  
bajo el número 16.

Dado en Bogotá, a 17 de Mayo de 1937

Firma: *G. Rojas Pardo*

REPUBLICA DE COLOMBIA  
MINISTERIO DE RELACIONES EXTERIORES

COPIA DEL PASAPORTE EXPEDIDO A

*Agente Jorge Elías Ceitán,*  
*Propietario de la Remoquetería,*  
*delgado, miembro de la*  
*Asociación Universitaria*  
*que va al Perú.*

FILIACION

Edad: 35  
Talla: 164  
Cabello: cast. az.  
Ojos: oscuros  
Oreja: parde oscuras  
Frente: amplia  
Nariz: recta  
Boca: mediana  
Barba: ninguna  
Color: trigueño  
Estado: casado  
Profesión: Utopista

SEÑALES PARTICULARES

Registrado en el libro respectivo,  
bajo el número 579.

Dado en Bogotá, a 17 de Diciembre de 1937

Firma: *J. Ceitán*



# I. Introduction

## Passports

REPUBLICA DE COLOMBIA  
MINISTERIO DE RELACIONES EXTERIORES

COPIA DEL PASAPORTE EXPEDIDO A

*Virgilio Barco,*  
*a Estados Unidos, a estudiar,*  
*(Hija con su padre el Sr. Jorge Enrique*  
*Barco).*

FILIACION

Edad: 14  
Talla: 138  
Cabello: castaño oscuro  
Ojos: "pálidos"  
Oreja: parde oscuras  
Frente: amplia  
Nariz: recta  
Boca: mediana  
Barba: ninguna  
Color: blanco  
Estado: soltero  
Profesión: Estudiante

SEÑALES PARTICULARES

Registrado en el libro respectivo,  
bajo el número 145.

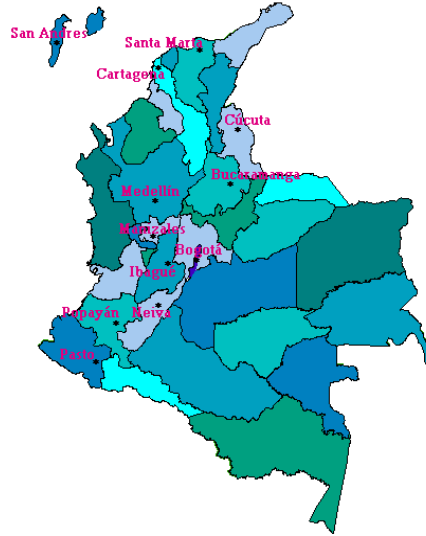
Dado en Bogotá, a 27 de Mayo de 1937

Firma: *Virgilio Barco Vargas*



## I. Introduction

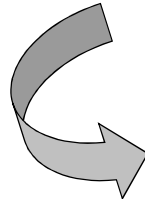
Colombian cities where passports were issued (1918-1940)



## II. The Stature of the Colombian Elite, 1870-1919

Average Height Obtained from Passport Records, 1870-1919

Date of birth	Average Male Height	Average Female Height	Increase in Height for Men (%)	Increase in Height for Women (%)	Number of observations (Men)	Number of observations (Women)	Standard Deviation (Men)	Standard Deviation (Women)	Coefficient of Variation (Men)	Coefficient of Variation (Women)	Centimeters increased (Men)	Centimeters increased (Women)
1870-1874	167,4	158,1			195	120	8,44	6,20	0,0497	0,0393		
1875-1879	168,2	157,5	0,5%	-0,4%	393	197	7,01	6,21	0,0415	0,0395	0,79	-0,62
1880-1884	168,7	158,2	0,3%	0,5%	594	331	6,90	7,64	0,0407	0,0483	0,51	0,73
1885-1889	168,8	158,9	0,1%	0,4%	881	390	7,23	7,72	0,0428	0,0486	0,18	0,68
1890-1894	168,5	158,7	-0,2%	-0,1%	1,229	512	7,29	7,56	0,0432	0,0477	-0,31	-0,22
1895-1899	168,5	158,3	0,0%	-0,3%	1,591	688	7,13	7,72	0,0423	0,0488	-0,01	-0,42
1900-1904	168,3	158,2	-0,1%	0,0%	1,739	887	6,71	7,46	0,0398	0,0472	-0,24	-0,06
1905-1909	168,7	158,1	0,3%	-0,1%	1,871	1,006	6,77	7,01	0,0401	0,0444	0,44	-0,09
1910-1914	168,3	158,6	-0,3%	0,3%	1,246	835	7,14	6,86	0,0424	0,0433	-0,43	0,46
1915-1919	168,6	158,7	0,2%	0,1%	651	555	6,89	6,58	0,0407	0,0415	0,33	0,14
<b>TOTAL</b>	<b>168,39</b>	<b>158,33</b>	<b>0,7%</b>	<b>0,4%</b>	<b>10,390</b>	<b>5,521</b>					<b>1,24</b>	<b>0,59</b>



	Average Height	Increase in height
<b>Men</b>	<b>168,39</b>	<b>1,24</b>
<b>Women</b>	<b>158,33</b>	<b>0,59</b>

→ Less than 0.25 cm per decade

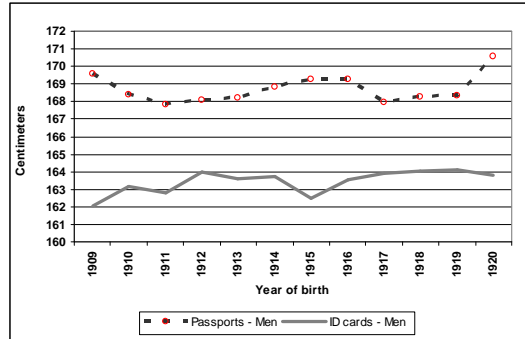
→ Less than 0.12 cm per decade



## II. The Stature of the Colombian Elite, 1870-1919

- The data on height obtained from passports was extended until 1919 so that we could compare the results obtained from this source with those from the ID cards.
- When the heights from these two sources are compared it is evident that the average height obtained from passports is above that obtained from the ID cards: about 8 cm. for women and about 5 cm. for men.

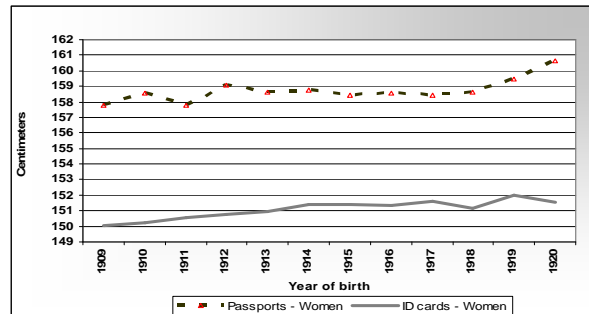
Average Height of Men from Passports and ID Cards, 1909-1919



## II. The Stature of the Colombian Elite, 1870-1919

- The reason for the difference in average height between passport and ID card holders is probably related to the fact that while the information based on the later source is a representative sample for the Colombian population as a whole, the former represents the universe of a small segment of the population, since most of the persons included belonged to the social, economic, and cultural elite.

Average Height of Women from Passports and ID Cards, 1909-1919





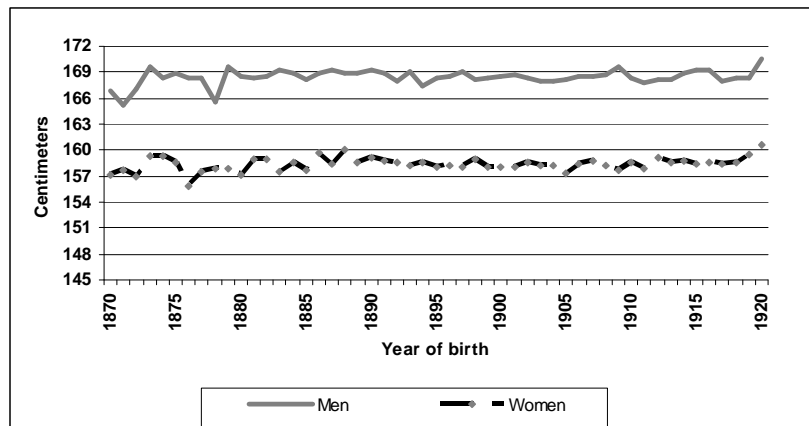
## II. The Stature of the Colombian Elite, 1870-1919

- During the first decades after independence the territory of what is now Colombia, like most of Latin America, experienced a drop in its per capita GDP.
- Between 1802-1804 and 1846-1850, per capita exports in real terms fell by 42%.
- Although exports recovered in the following two decades as a result of a short lived boom in tobacco exports, after 1880 and until 1910, export growth again stagnated.
- The fall in exports in the final decades of the 19th century and first decade of the 20th century seems to have led to a reduction in real wages



## II. The Stature of the Colombian Elite, 1870-1919

Average Height of Men and Women Born between 1870-1919

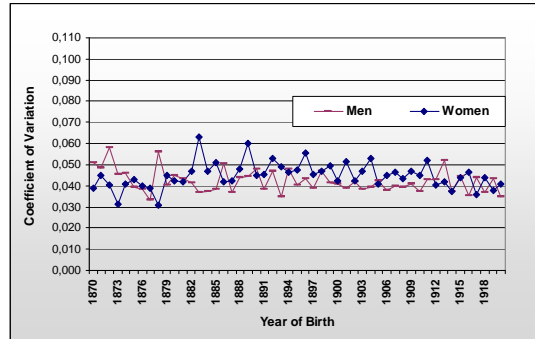




## II. The Stature of the Colombian Elite, 1870-1919

- The dispersion in the heights, was relatively constant.
- It is less than what was observed with the heights obtained from the national ID card.
- Only towards 1980 the dispersion of height obtained from the data of the ID card approaches a level similar to that observed for passports in the period 1870-1919.
- Thus, it can be concluded that the group in the passport sample was relatively homogeneous in social and economic terms.

Coefficient of Variation of Average Height, 1870-1919



## II. The Stature of the Colombian Elite, 1870-1919

•Although the height of Colombians who obtained a passport in the period 1918-1940 was stagnant, international comparisons show that this group was relatively tall in relation with what had been achieved by other countries.

•Only the tallest countries in the world at the time were above the height of Colombian men in our sample

International Comparisons of Men's Height

Country	1900
Sweden	172,5
United States	171,0
Norway	171,0
Mexico	170,1
Netherlands	169,0
<b>Colombia</b>	<b>168,5</b>
Great Britain	167,0
France	165,5
Italy	164,5
Spain	163,6
Indonesia	160,8



## II. The Stature of the Colombian Elite, 1870-1919

### Possible biases in the sample

The sample obtained from passports is not representative of the total Colombian population. It is evident when comparing the average height obtained from passports and ID cards:

Period	Passport Men	Citizenship card Men	Difference Men	Passport Women	Citizenship card Women	Difference Women
1905-1909	168,7	162,0	6,7	158,1	150,0	8,1
1910-1914	168,3	163,5	4,8	158,6	150,8	7,8
1915-1919	168,6	163,6	5,0	158,7	151,5	7,2

⇒ The height of Colombians derived from ID cards reaches the height obtained from passports in 1919 around 1960-1964, in the case of men, and around 1980-1984 in the case of women.

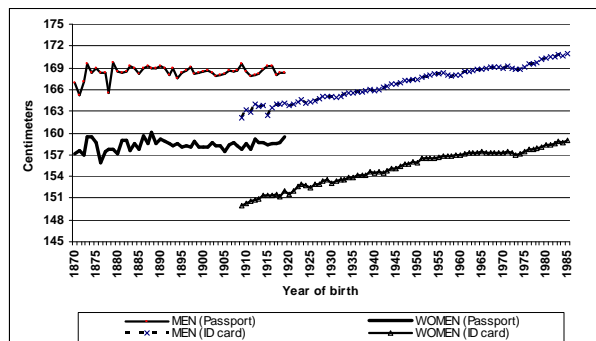
⇒ Another important difference between the heights observed in the passport records with respect to the ID card is that in the former the long term trend is constant, while in the later there is a clear positive trend in height.



## II. The Stature of the Colombian Elite, 1870-1919

However, the height achieved by the members of the Colombian elite in the late 19th century and early 20th century is below the average for the total Colombian population which was born in 1985.

Average Height of Men and Women by Source, 1870 - 1985







BANCO DE LA REPÚBLICA  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CER) - CARTAGENA

## II. The Stature of the Colombian Elite, 1870-1919



•These results indicate that in the early 20th century the Colombian elite was not achieving its potential height. Even if at that level of development its purchasing power allowed it to have a proper nutrition, perhaps because of health reasons it was not achieving its genetically determined maximum height.

•Medical advances that improved life expectancy and height were available only in the late 1920's and 1930's, at the earliest. Thus, they were not achieving their potential height, even if they had a good diet and adequate personal hygiene.



BANCO DE LA REPÚBLICA  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CER) - CARTAGENA

## II. The Stature of the Colombian Elite, 1870-1919

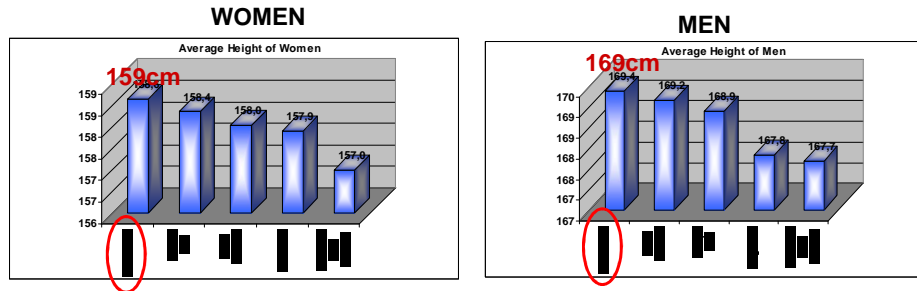
•The trend in the average height of the employees of the Colombian Central Bank perhaps shows what happened to the elite during the 20th century, since it represents urban dwellers with formal education, which exceeds the national average height by about 4 cm. during the whole period.

•Thus, the average stature of men from the elite could have moved upward from 168.6 cm. in 1915-19 to 172 cm. in 1984, as represented by men of the Central Bank. For women, it would have increased from 158.7 cm. in 1915-19 to 163 cm. in 1984



## II. The Stature of the Colombian Elite, 1870-1919

### Height by Destination

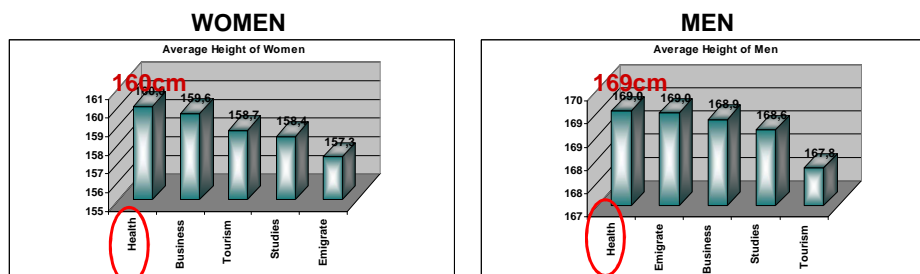


The analysis of height according to the place people travelled reveals interesting patterns: People who travelled to the United States were the tallest.



## II. The Stature of the Colombian Elite, 1870-1919

### Height by Reason for Travelling



The tallest people were those who went to foreign countries for medical reasons.



BANCO DE LA REPÚBLICA  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CEER) - CARTAGENA

### III. Conclusions

The main conclusion from the above analysis is that, for Colombians born between 1870 and 1919 and who obtained a passport, the average height was stagnant throughout this period.

A second conclusion is that they were significantly taller than Colombians who did not belong to the elite (by almost 5 cm).

The third conclusion, and somewhat surprisingly, is that by present Colombian standards this group was short. While the average height for men in this group in 1900 was 168.2 cm., Colombians born in 1985 grew to an average height of 170.6 cm. Even if the Colombian elite was well fed at the beginning of the 20th century, the health conditions under which it lived were probably holding back its physical growth.



BANCO DE LA REPÚBLICA  
CENTRO DE ESTUDIOS ECONÓMICOS REGIONALES (CEER) - CARTAGENA



*The End*

**Adolfo Meisel Roca**  
**Margarita Vega Acevedo**

*Banco de la República*  
Colombia