# The Netherlands 1900 and 2000: an update 2011



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## Introduction

How did the labor relations (labrel) develop in the Netherlands? In order to answer this question for the cross sections 1900 and 2000 I reconsidered the data which I presented during our previous sessions. These data were mainly based on the population and occupational censuses for 31.12.1899 and on data of the Dutch Statistical Bureau (CBS) for 2000. To adapt these data into our taxonomy I used several other sources like

- the industrial census of 1930<sup>1</sup>,
- data on school attendance 12-22 years of age (1900)<sup>2</sup>,
- data on recipients of different kinds of social welfare benefits (2000)
- It will also appear that data on the age composition and the marital status of the population are of great relevance in analyzing the original recorded data and translating them into our taxonomy.

The result of this effort is a more detailed, more specific and for that reason more reliable data for 1899 and 2001.

In the following you will find several tables on the 'labrels' in 1899, the 'labrels' in 2001 and a comparison of the two cross sections.

First of all the labor relations in 1899.

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<sup>&</sup>lt;sup>1</sup> Bedrijfstelling 31 december 1930 Volume II, Inleiding ondernemingen (Den Haag 1936).

<sup>&</sup>lt;sup>2</sup> Kees Mandenmakers , *HBS en gymnasium : ontwikkeling, structuur, sociale achtergrond en schoolprestaties, Nederland, circa 1800-1968* (Amsterdam 1996).

# A. Cross Section 1900

**Table 1 Labrels in 1899** 

		Men	Women	Total	%
Labrel 1	Age slot – 12	733,066	722,952	1.456,018	
	Age slot >71	30,901	70,427	101,328	
Labrel 1	Sub total	·	·	1,557,346	30.5%
	High school				
	attending				
	youngsters				
Labrel 1	12-22 years of age			70,000	1.4%
Labrel 1	Sub total			70,000	31,9%
Labrel 2	Affluent			51,040	1.0%
Labrel 3	Unemployed			67,233	1.3%
Laurer 5	Engaged in			07,233	1.3 /0
Labrel 5	family duties	40,234	853,531	893,765	17.5%
	Engaged in				
Labrel 5	family duties		94,000		1,8%
Labrel 5	Sub total				19,3%
Labrel 12				383,090	7.5%
Labrel 13				153,587	3.0%
Labrel 14	Wage earners			1,227,115	24.0%
	Hidden forms				
Labrel 14	of wage earners			544,491	10.7%
Labrel 18	Education	6,860	8,268	15,128	10.7 70
Labrer 18	Healthcare	3,191	8,805	11,996	
			257	34,246	
	State	33,989			
	Province	749	5 070	750	
	Municipalities	23,085	5,878	28,963	
	Water boards Sub total civil	3,389	26	3,415	
	servants			67,374	
	Religion	7.357	2240	9.597	
Labrel 18	Sub total	,		104,095	2.0%
Total Population		2,521,000	2,583,000		100.7%

Source: Volkstelling 1899.

#### Some clarifications

## Labrel 1

#### **Contains**

- 1.1 All children "age category <12" (total number 1,456,018);
- 1.2 Men and women "age category > 71" (total number 101,328);
- 1.3 A group of 70,000 high school attending mainly male youngsters "age category 12-22".

		Men	Women	Total	%
	Age				
	slot				
Labrel 1	- 12	733,066	722,952	1,456,018	
	Age				
	slot				
	>71	30,901	70,427	101,328	
				1,557,346	30.5%
Labrel 1 High school					
attending youngsters age categor	y 12-2	2		70,000	1.4%
Total				1,627,346	31.9 %

## Labrel 2

The table shows a share of 1 % (total number 51,040). This is based on the assumption that the share of the not working 'rich and famous' in the Netherlands is rather small. A second assumption is that this share is quite stable over time in the Netherlands.

## Labrel 3

Unemployment is not recorded in the 1899 census. However there is a reliable estimation. This tells us that 3.5 percent of the total recorded active labor force was unemployed.<sup>3</sup> So, the share of the total population that was unemployed in 1899 can be estimated at 1.3 percent (67,233). The occupational census 1899 counts every person with an occupation (employed or unemployed) (see labrel 14).

## Labrel 5 contains:

5.1 Married men and women "age category 18-70" without an occupation as a proxy for the heads of households.

<sup>&</sup>lt;sup>3</sup> Edwin Horlings, 'Werkgelegenheid en economische modernisering. De structuur van de beroepsbevolking 1807-1909' in: *Nederland een eeuw geleden geteld*, p. 240.

Tabel 2 Married men and women "age category 18-70", without an occupation

Men						
18-22	23-35	36-50	51-60	61-65	66-70	
178	4,070	7,915	9,647	7,681	10,743	40,234
Women						
18-22	23-35	36-50	51-60	61-65	66-70	
20,456	277,253	299,438	148,111	61,467	46,806	853,531
Total						893,765

Source: Volkstelling 1899, pp 266-267.

Total number of households in 1899: 1,113,000 of which 1,024,000 households with more than one person ("meerpersoonshuishoudens").<sup>4</sup>

Note: Female labour in general is underestimated in occupational censuses, especially in 19th century. This category hides spouses which worked together with their husband in for instance small family shops. Actually these women do belong to category 12/13, but there is no possibility to estimate their exact number.

5.2 A group of 94,000 women (not married and without an occupation "age category 23 – 70"). These women can be linked to the group of widowers (89,400) and divorced men (4,000) in 1899.

Both groups (5.1 and 5.2) are - in my opinion - engaged in family duties and they all contributed to the maintenance of households.

## Categories 12 and 13

The total number of entrepreneurs contains all the recorded heads of commercial enterprises as well as the professions like lawyers, notaries, architects, accountants recorded in the 1899 census.

	Men	Women	Total
Professionals	13,110	11,611	24,721
Entrepreneurs	419,259	92,696	511,955
Total	432,369	104,307	536,676

<sup>4</sup> Source: Vijfennegentig jaar statistiek in tijdreeksen 1899-1994, p. 20, colums 48 and 51.

Table 3 Total number of entrepreneurs per economic sector 1899

		Men	Women	Total
Manufacturing	A	127,325	35,108	162,433
	В	3,046	286	3,332
Agriculture	A	158,460	20,884	179,344
	В	2,719	64	2,783
Fishery	A	7,188	46	7,234
	В	205	0	205
Services	A	113,429	35,096	148,525
	В	6,887	1,212	8,099
Total		419,259	92,696	511,955
		81.9%	18.1%	

Source: Volkstelling 1899

A: entrepreneurs working for their own account and risk

B: entrepreneurs not working for their own account and risk (e.g. managers of a limited liability company).

Our taxonomy makes a distinction between self-employed with less than three dependent wageworkers on the one hand and on the other hand employers who produce goods or services for market institutions by employing more than three wage laborers, indentured laborers, serfs or slaves. However, the way we use the word 'self employed' differs from the definition that is normally used in other national and international statistical overviews (e.g. self employed is the one who works for his or her own account and risk *regardless of the number he or she employs*). We also have to be aware that many occupational censuses provide data on the total number of entrepreneurs (categories 12 and 13), without providing information on the size of the businesses. For that reason we need additional information to make a distinction between the categories 12 and 13. This information is available in business censuses. The division between the categories 12 and 13 in our taxonomy is based on the first nationwide business census of the Netherlands in 1930. This census provides us with information on the size of enterprises based on employment (see table 4).

<sup>&</sup>lt;sup>5</sup> E.g. OECD and Compandia Dataset.

<sup>&</sup>lt;sup>6</sup> Unfortunately large scale business censuses in many countries are only available from the mid nineteenth century onwards. The first – nationwide - business in the Netherlands was conducted in 1930

Table 4 Total number of business units and their employees 1930

Size (employment including self employment)	Number of businesses	Number of employees	businesses %	Share of employees % (including self employment)	Average size: number of employees
0 employees	183,428	183,428	46.4	9.8	1
1-2 employees	99,158	198,316	25.1	10.6	2
3-5 employees	77,207	274,518	19.5	14.6	3,6
6-50 employees	32,396	413,747	8.2	22.1	12,9
51-200 employees	2,459	227,118	0.6	12.1	94,6
201-500 employees	460	137,707	0.1	7.3	299
501-1.000 employees	149	103,572	0.0	5.5	695
>1.000 employees	100	336,682	0.0	18.0	3.367
Total	395,357	1,875,088	100.0	100.0	4,7

Source: Bedrijfstelling 1930, 110-111. [Census of Business 1930], agriculture not included.

The 1930 business census counted almost 400.000 business units. The share of small and medium sized business units (< 50 employees) in the total number of businesses amounted over 99 percent. It is obvious that the small and medium sized units strongly dominated the Dutch economy in 1930. The employment share of these small and medium sized units was 57 percent. It is remarkable to see that proportionally only 1 percent of the business units provided work for 43 percent of the labour force. The table also reveals that over 46 percent of all the units regarded self employed entrepreneurs. The total number of business units working without employees was even higher: 226,700 (over 57 percent of the total). Based on table 4 we can conclude that in the Netherlands in 1930 more than 70 percent of the entrepreneurs belonged to the category 12 in our taxonomy and subsequently almost 30 percent belonged to the category 13.

On the basis of occupational censuses it is possible to calculate an average size (or the average number of workers per employer (see table 5). However, behind these average figures, great differences may be hidden.

<sup>&</sup>lt;sup>7</sup> In general the number of entrepreneurs is greater than the number of enterprises because many companies are run by more than one entrepreneur.

<sup>&</sup>lt;sup>8</sup> Total sum cosists of: 183.428 + 7.779 (enterprises with two entrepreneurs (companions) + : plus 35.493 (enterprises headed by an entrepreneur and his wife) = 226.700 (source: *Bedrijfstelling 1930*, 110-111.

Table 5 Average number of employees per self employed per branch 1930

Agriculture including fishery	2.46
Manufacturing	9.02
Building	6.52
Trade	2.41
Bank and Insurance	22.29
Transport	8.82
Services (excluding domestic services)	5.32
Total labor force (occupational census)	4.66
Average number of employees per business (business census)	4.7

Source: 13e Algemene volkstelling 31 mei 1960, pp. 40-41.

The results of the calculations on the average workers per employer seems to be identical: 4,66 and 4,7. But these figures are not comparable because the 1930 occupational census includes the agricultural sector, whereasthe business census does not. Moreover the occupational census counts every one with an occupation (employed or unemployed), the business census counted only the actually working people.

The share of labrel 12 and labrel 13 is based on the following calculation:

Labrel 12:  $(0.7 \times 511.955) + 24.721$  (professionals) = 383.090 = 7.5 %

Labrel 13: (0,3 x 511,955) = 153,587 = 3 %

Total: 536.677 = 10.5 %

#### Labrel 14 contains

14.1 All the recorded employees and labourers in the 1899 census (specified by economic sector) including the youngsters and elderly people with an occupation.<sup>9</sup>

Table 6 Total number recorded employees and labourers 1899

	Men	Women	Total
Manufacturing	433,029	51,780	484,809
Agriculture	329,515	58,636	388,151
Fishery	14,549	508	15,057
Services	162,454	13,147	175,601
	939,547	124,071	1,063,618
	88.3%	11.7%	

Source: Volkstelling 1899.

14.2 All men and women working in the domestic services and day labourers

<sup>&</sup>lt;sup>9</sup> This category does also contain children younger than 13 years and the men and women with the age of 71 years and older with a recorded occupation in the 1899 census (total number: approximately 47,000).

Table 7 Total number men and women working in the domestic services and day labourers

	Men	Women	Total
Domestic			
services	7,930	189,581	197,511
Day labourers	23,563	9,656	33,219
Total	31,493	199,237	230,730

Source: Volkstelling 1899.

14.3 Youngsters "age category 12-22" (not married, no occupation, minus the school attending group), based on the assumption that a great part of these youngsters assisted their parents in a family enterprise like a grocery, a bakery or a farm.

Table 8 Youngsters "age category 12-22" without occupation and not married 1899

Men				
12-13	14-15	16-17	18-22	
83,453	46,703	23,700	27,762	181,618
Women				
12-13	14-15	16-17	18-22	
97,177	77,210	59,452	104,034	337,873
				519,491

Source: Volkstelling 1899.

14.4 A group of approximately 95,000 men and women "age category 23-70" not married and without occupation for the same reason as the previous group (see also labrel 5)

Table 9 Men and women ("age category 23-70") not married and without an occupation 1899

Men ("age category 23-70") not married					
23-35	23-35 36-50 51-60			66-70	Total
17,021	7,696	4,644	2,389	2,079	33,829
-	Women ("age category 23-70") not married				
23-35	36-50	51-60	61-65	66-70	Total
93,590	93,590 34,358 15,253		6,863	5,710	155,774
					189,603

Source: Volkstelling 1899, p. 266-267.

The total number 1,771,606 (share 34.7 per cent) is based on the following calculation:

1,063,618 (table 6) + 230,730 (table 7) + 519,491 (table 8) + 95,000 (men and women "age category 23-70" not married and no occupation) – 70,000 (high school attending - mainly male - youngsters "age category 12-22", see labrel 1) – 67,233 (unemployed see labrel 3).

## Labrel 18

This labrel contains the wage earners not working for the private market. It includes civil servants and wage earners working for nonprofit organizations like educational and health care institutions.

## **B.** Cross section 2001

The 2001 data are derived from a virtual census based on a survey. 10

Table 10 Labrels 2000

		Men	Women	Total	%
Labrel 1	Age slot -15; >65	2,512,234	2,827,582	5,339,816	33.4%
Labrel 1	Recipients disability			978,500	6.1%
Labrel 1	"Vutters"	115,252	99,148	214,400	1.3%
Labrel 1	Sub total			6,532,716	40.9%
Labrel 2	Affluent			159,855	1.0%
Labrel 3	Unemployed	100,272	91,865	192,137	1.2%
Labrel 3	Recipients social security (Bijstand)			322,000	2.0%
Labrel 3	Sub total				3.2%
Labrel 5	Engaged in family duties	65,821	1,204,599	1,270,420	7.9%
Labrel 12*				425,786	2.7%
Labrel 13*				182,480	1.1%
Labrel 14		3,555,565	2,740,005	6,295,570	39.4%
Labrel 18	military	34,227	2,805	37,032	
Labrel 18	Civil servants	294,021	159,888	453,909	
Labrel 18	Sub total	328,248	162,693	490,941	3.1%
Total Populati	on	7,909,052	8,076,486	15,985,538	99.3%

Source: Virtuele volkstelling 2001, tables 2,6,11 and 19. \* See clarification below <a href="http://www.cbs.nl/nl-NL/menu/themas/dossiers/volkstellingen/cijfers/incidenteel/maatwerk/2003-volkstelling-excel.htm">http://www.cbs.nl/nl-NL/menu/themas/dossiers/volkstellingen/cijfers/incidenteel/maatwerk/2003-volkstelling-excel.htm</a> (june 2011)

C:\Documents and Settings\jge\Local Settings\Temporary Internet Files\Content.IE5\V2KFHZ40\Volkstelling\_Nederland[1].zip\ (june 2011).

## Labrel 1 contains

- 1.1 All men and women "age category 0-15 years" and "age category >65 years" (see table 11).
- 1.2 People younger than 65 years but already retired (so called "Vutters"): 214,400.
- 1.3 Men and women declared (100 percent or less) disabled and for that reason receivers of a disability benefit.

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 $<sup>^{\</sup>rm 10}$  http://www.cbs.nl/nl-NL/menu/themas/dossiers/volkstellingen/cijfers/incidenteel/maatwerk/2003-volkstelling-excel.htm

Table 11 Age composition 2001

	Men	Women	Total
0-4	512,340	488,639	1,000,979
5-10	509,203	486,544	995,747
10-14	501,268	479,289	980,557
15	96,085	92,023	188,108
Sub total	1,618,896	1,546,495	3,165,391
65-69	306,371	337,449	643,820
70-74	248,151	310,370	558,521
75-79	180,764	274,712	455,476
80-84	98,884	189,404	288,288
85-89	44,306	113,684	157,990
90-94	12,515	45,015	57,530
95-99	2,174	9,538	11,712
100	173	915	1,088
Sub total	4,131,130	4,374,077	2,174,425

Source: Virtuele volkstelling 2001, table 2.

However, one can argue that the Disablement Insurance Act (Wet op de arbeidsongeschiktheidsverzekering [WAO]) in the Netherlands was used to get rid of redundant employees. The labour movement as well as the organized employers used the Disablement Insurance Act more or less as an unemployment arrangement in disguise. So a theoretical alternative would be to put this group (almost one million persons) in category 3. <sup>11</sup> This has not been done however in these tables

## Labrel 2

The share of 1% is the same as for 1899.

## Labrel 3

Contains the number of the recorded unemployed as well as the receivers of a social security benefit (total number 322,000).<sup>12</sup>

## Labrel 5

Contains men and women who were recorded in the 2001 census as 'engaged in family duties'.

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<sup>&</sup>lt;sup>11</sup> Ontwikkeling arbeidsongeschiktheid Jaaroverzicht WAO/WAZ/Wajong 2001 http://tno-arbeid.adlibsoft.com/adlib/docs/AO2001.pdf

<sup>&</sup>lt;sup>12</sup> CBS: http://www.cbs.nl/NR/rdonlyres/08C673DF-0867-4F44-B3BA-2F85E9A614B6/0/pb02n150.pdf

#### Labrel 12 and 13

The 2001 census recorded over 600,000 'employers'. However, the definition used in the census is rather vague. My impression is that the total number of entrepreneurs (our categories 12 and 13) is underestimated. I'm supported in my assumption by a recent publication in which the number of entrepreneurs in the Netherlands counted in 2001 is almost 750,000 (that is 4.7 % of the total population) of which 300,000 'self employed' with employees ("zelfstandigen met personeel") and '450,000 self employed without employees' ("zelfstandigen zonder personeel").

Two calculations can be made. One based on the virtual 2001 census (A) and one based on the figures provided by L Kosters (B). In both cases I used the same distinction as in 1930.

#### A:

Labrel 12 is  $0.7 \times 608,266 = 425,786$  (share in total population 2.7 %) Labrel 13 is  $0.3 \times 608,266 = 182,480$  (share in total population 1.1 %) Total 12 and 13: 3.8 %.

#### B:

Labrel 12 is  $0.7 \times 750.000 = 525.000$  (share in total population: 3.3 %) Labrel 13 is  $0.3 \times 750.000 = 225.000$  (share in population 1.4 %). Total 12 and 13: 4.8 percent

#### Labrel 14

Contains all men and women "age category 15-65" who are recorded as 'economically active'.

#### Labrel 18

Contains only men and women working for the state (civil servants)

## Labrel 18 Total

L	Public administration and defence; compulsory social security	490.941
75	Public administration and defence; compulsory social security	490.941
751	Administration of the State and the economic and social policy of the community	291.045
752	Provision of services to the community as a whole	160.633
753	Compulsory social security activities	39.263

Virtuele volkstelling 2001, tabel 18

#### Labrel 18 Men

 L
 Public administration and defence; compulsory social security
 328.248

 75
 Public administration and defence; compulsory social security
 328.248

 751
 Administration of the State and the economic and social policy of the community
 188.826

 752
 Provision of services to the community as a whole
 120.760

 753
 Compulsory social security activities
 18.662

<sup>&</sup>lt;sup>13</sup> L. Kosters, 'Sterke groei zelfstandigen zonder personeel', in: *Sociaaleconomische trends 3e kwartaal* 2009, 7 http://www.cbs.nl/NR/rdonlyres/1BB2627C-F8B3-4E63-A462-1D689AF962A1/0/2009k3v4p07art.pdf

# Labrel 18 Women

L	Public administration and defence; compulsory social security	162.693
75	Public administration and defence; compulsory social security	162.693
751	Administration of the State and the economic and social policy of the community	102.219
752	Provision of services to the community as a whole	39.873
753	Compulsory social security activities	20.601

Of which armed forces: Total 37.032 (men: 34.227; women 2.805).

# C. Comparison cross sections 1900 with 2000

Table 12 Comparison 1900-2000

	1900	2000
Labrel 1	31.9%	40,9%
Labrel 2	1.0%	1.0%
Labrel 3	1.3%	3,2%
Labrel 5	19.3%	7.9%
Labrel 12	7.5%	2.7%
Labrel 13	3.0%	1.1%
Labrel 14	34.7%	39.4%
Labrel 18	2.0%	3.1%
Total	100.7%	99.3%
Total population in		
millions	5.1	16.0

## Labrel 1

The increase in category 1 between 1900 and 2000 is partly due to adding a large group disabled people to this category. At the same time we have to be aware that labrel 1 in 1899 is based on different age slots than in 2001. If we compare the same age slots in 1899 and 2001 we will see a decreasing total share of the youngsters and the elderly people due to the aging of the population.

Table 13 Green and Grey 'pressure' 1900 and 2000

	1900	2000
Green	89	40
Grey	12	23
Total dependency		
ratio	101	63

Green: people with an age < 20 years per 100 persons between 20 and 65 years

Grey: people with an age 65 years and elder per 100 persons between 20 and 65 years

Total: green and grey (dependency ratio)

Source: Th. Engelen, 'Vergrijzing in Nederland 1899-2000', in: *Twee eeuwen Nederland geteld*, p. 60 and 68.

Table 14 Age composition 1900 and 2000

	1899		2001	
<12	1,457,695	28.6%	2,395,993	15.0%
<12-71	3,484,893	68.3%	12,181,829	76.2%
>71	161,569	3.2%	1,407,716	8.8%
Total	5,104,157	100.0%	15,985,538	100.0%
<15	1,879,547	36,8%	3,165,391	19.8%
<15->65	2,946,237	57,7%	10,779,644	67.4%
>65	278,373	5,5%	2,040,503	12.8%
Total	5,104,157	100.0%	15,985,538	100.0%

## Labrel 2

Based on the assumption that this category of the rich and famous in the Netherlands is rather small and quite stable over time.

#### Labrel 3

This share is highly influenced by short term economic developments.

#### Labrel 5

This share is decreasing because the labour participation is increasing, especially in the second half of the century.

## Labrels 12 and 13

The data in the 2001 virtual census are probably underestimated (see explanation above). Perhaps one would except that during the 20<sup>th</sup> century business unites - because of economies of scale and scope - became bigger and bigger and that small companies became smaller and smaller. Resulting in an ongoing declining share of self employment. Surprisingly that is not the case. From the '80 onwards - after a long period of gradual decline - the share of self employment has increased again.

## Labrel 14

This category increased during the twentieth century due to the aging of the population and due to a higher participation rate of the population in general but especially due to the increasing labor participation of women. At the same time we have to be aware that an increasing share of the economically active population is working part time, especially women. 75 % of all the Dutch women work part time at this moment. That is the reason why the Netherlands is currently champion working part time in Europe.

# Labrel 18

The share of this category is increasing because of the growing number of civil servants despite the fact that because of the privatization 'more market and less government' (and as a result a bigger role for the private sector) more and more people for instance in the health care are no longer working for nonprofit employers and organizations but for the private market.