

Sound, innovative and connective monitoring
for the Wadden Sea area

EMPLOYMENT AND EMPLOYMENT DEVELOPMENTS IN THE DUTCH WADDEN AREA 1988-2013

Lourens Broersma

Rijksuniversiteit Groningen

TABLE OF CONTENTS

1	INTRODUCTION	4
2	TOTAL EMPLOYMENT	5
	2.1 Netherlands.....	5
	2.2 Wadden area	5
	2.3 Wadden harbours	6
	2.4 Wadden islands	7
3	EMPLOYMENT BY INDUSTRY	9
	3.1 Netherlands.....	9
	3.2 Wadden area	10
	3.3 Wadden harbours	12
	3.4 Wadden islands	13

1 INTRODUCTION

This report provides an interpretation of the development of economic sectors in the Dutch Wadden area, based on conventional economic monitoring-data. We compare the employment in terms of the number of part-time and full-time jobs between 1996 and 2013 located in the Netherlands, the Dutch Wadden area, particular Dutch Wadden Sea harbour municipalities and on the Dutch Wadden islands. These different Wadden areas are all built from groups of municipalities (see Broersma and Mehnen, 2014). We first look at the developments in the total number of jobs between 1996-2013 and next look at the employment structure in terms of job in different types of industries and the changes therein between 1996 and 2013.

We will demarcate the Wadden area based on the municipality classification of 2009. We consider that during the years after 2009 there were three major redivisions in three former Wadden municipalities, which led to the fact that now only a very small part of this new large municipality surface will actually border the Wadden Sea. In order to remain at the old connectivity with the Wadden Sea, we have recalculated the jobs in these old municipalities as before the reclassification. In addition, when considering the employment structure by type of industry, we have to realise the fact that the port of Den Helder is also the national harbour for the Dutch Royal Navy. This has consequences for the jobs of naval personnel which are located there, and also for the share of jobs in the government sector because these include jobs in the Royal Navy.

2 TOTAL EMPLOYMENT

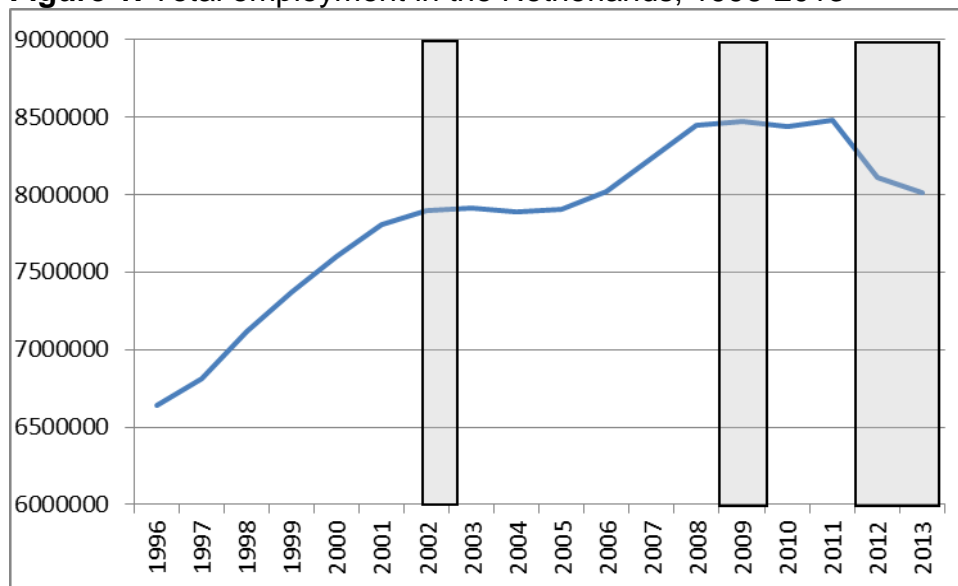
2.1 Netherlands

Figure 1 presents the total number of jobs in the Netherlands for the period 1996-2013. Taken over the whole period, the number of jobs rises, although 2004 there is a 'flat' development as a result of the 2002-2003 recession during which GDP growth averaged around 0.2%. The very strong fall in national GDP of -3.7% in 2009, was the strongest fall since the crisis of the 1930's. There was however no response in figure 1 of a similarly strong fall in employment in the immediate aftermath of this crisis. It was not until 2012 that the number of jobs fell strongly, with more than 4%. In that same year there was again a GDP fall of -1.2%, which likely aggravated this fall in the number jobs. The recession periods occurring in 2002-3, 2009 and 2012-3 are shown as grey areas around the years these recessions occurred.

2.2 Wadden area

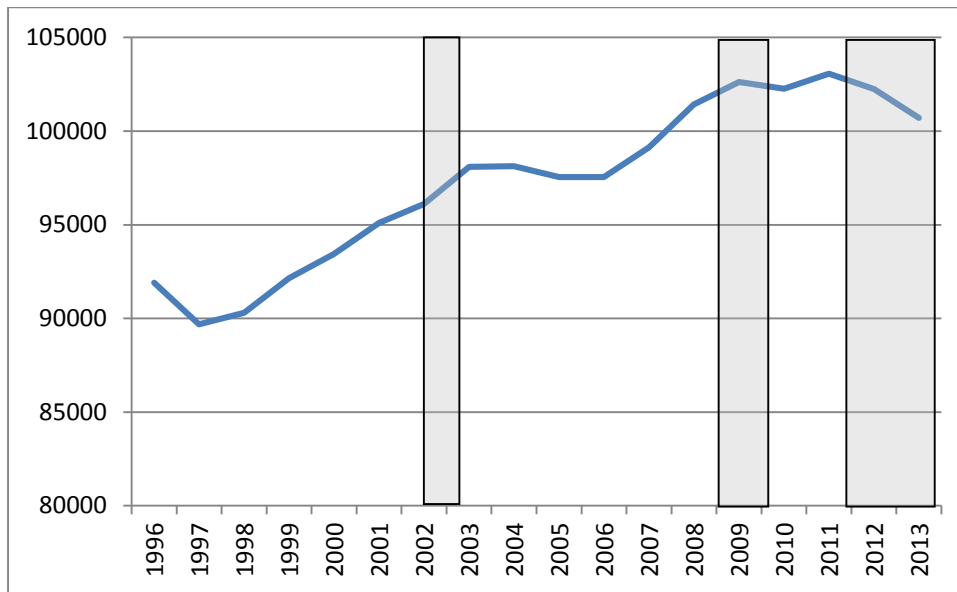
Figure 2 shows the total employment in the Wadden area, based on municipalities directly bordering the Wadden Sea and the five island-municipalities, for the period 1996-2013. Figure 2's pattern is quite similar to the pattern of figure 1, apart from a few differences. First, the decrease in 1997 (figure 2) was because compulsory military services were abolished in the Netherlands in 1997, which resulted in a huge fall in the number of service men. For the Wadden area this had particularly strong effects, because the naval base of Den Helder is part of the Wadden area and the number of naval personnel shrank dramatically. Second, the recession of 2004 resulted in a small drop in the number of jobs compared to a flat level nationally. The loss of employment in 2012 and 2013 was however less strong in the Wadden compared to the national situation.

Figure 1. Total employment in the Netherlands, 1996-2013



Source: LISA

Figure 2. Total employment in the Wadden area, 1996-2013



Source: LISA

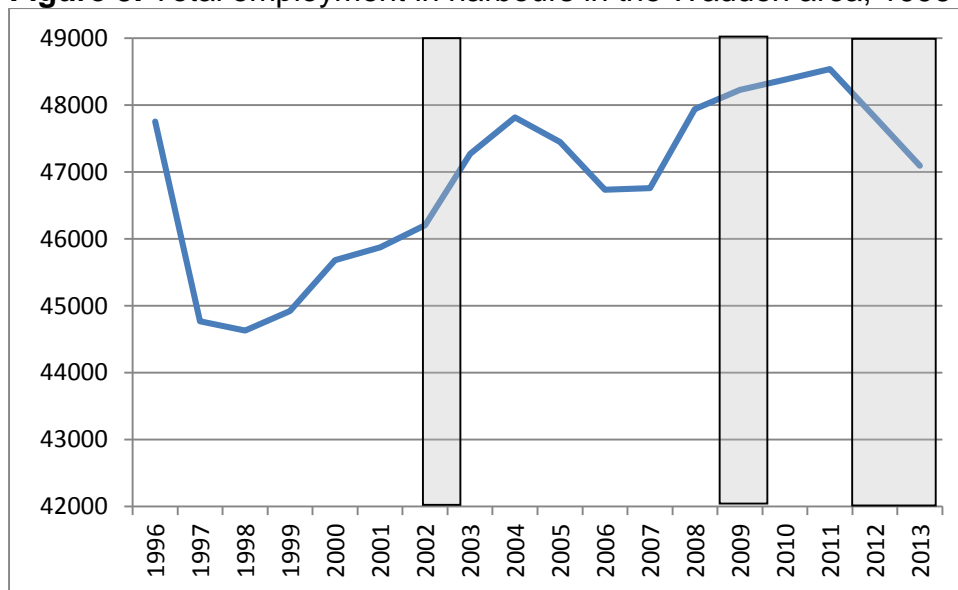
2.3 Wadden harbours

Just as we did for the population in the Wadden area, here we consider a specific group of municipalities at the Wadden coast, namely the harbour municipalities; i.e. municipalities with both a residential and a harbour function.¹

Figure 3 shows the total number of jobs in the larger harbours at the Wadden coast (Den Helder, Harlingen, Delfzijl). We now see a pattern that is different from the ones of figures 1 and 2. Again figure 3 shows the strong fall in the number of jobs in these harbours due to the abolishment of compulsory military services in 1997, which led to a strong fall in the drafted persons at the naval base of Den Helder. There was also a drop in 2004 through 2007. Also after 2011, these harbours witnessed a strong fall in employment.

¹ This implies municipalities with a harbour, but without associated city in which it is located will not be considered here. This means we do take the municipalities of Den Helder, Harlingen and Delfzijl into consideration, but abstract from harbours of municipalities in Den Oever (Wieringen), Holwerd (Ferwerderadiel) and Eemshaven (Eemsmond), as there are no or only few people living there.

Figure 3. Total employment in harbours in the Wadden area, 1996-2013



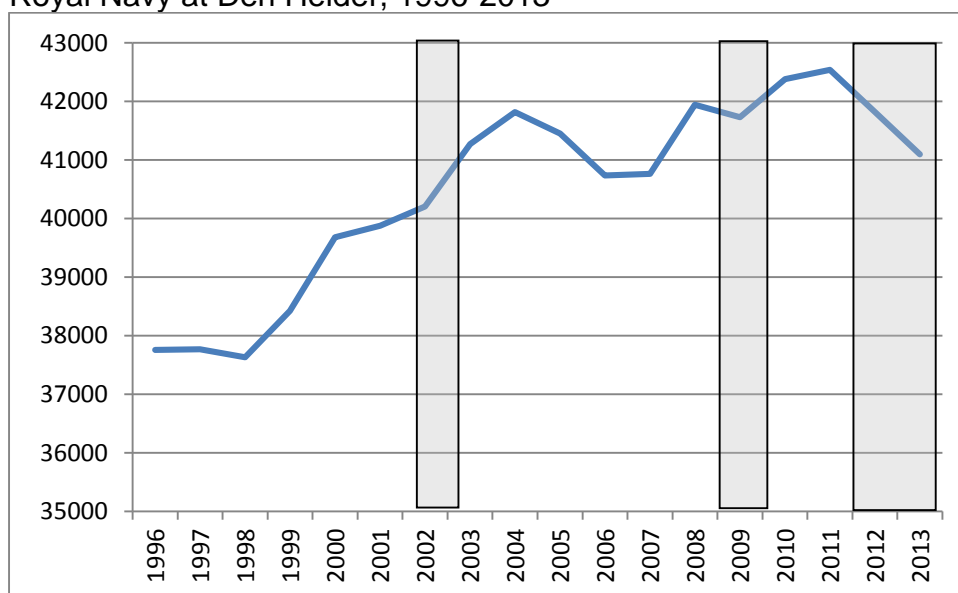
Source: LISA

Figure 4 shows the same variable, total employment in harbours, as does figure 3, but now without employment of the Royal Navy in Den Helder. It no longer shows the break in 1997 and has a similar pattern, which logically is at a lower level because Royal Navy jobs are not considered.

2.4 Wadden islands

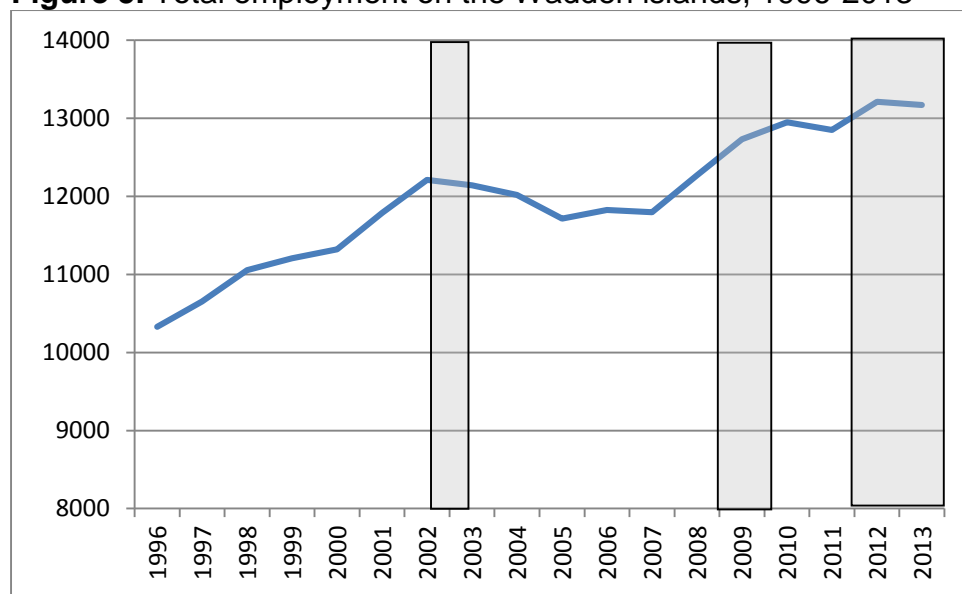
Employment at the Dutch Wadden islands in figure 5 shows in fact the most optimistic viewpoint as it has no strong downturns due to the 2009 and 2012-3 recessions. Only the 2002-2003 recession resulted in a modest fall in employment, but for the rest the number of jobs can best be characterised as constant.

Figure 4. Total employment in harbours in the Wadden area, without jobs of the Royal Navy at Den Helder, 1996-2013



Source: LISA and Dutch Royal Navy Den Helder

Figure 5. Total employment on the Wadden islands, 1996-2013



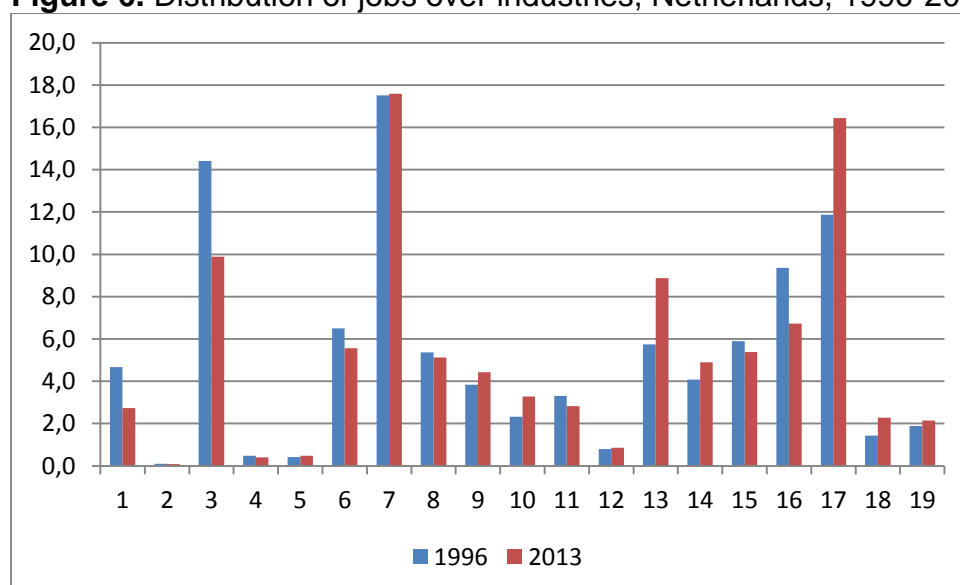
Source: LISA

3 EMPLOYMENT BY INDUSTRY

3.1 Netherlands

We next focus on the employment by industry and developments therein between 1996 and 2013. We start with the distribution of national employment over industries in 1996 and 2013 in figure 6. The largest industries are manufacturing, trade and health care. The share of manufacturing (no. 3) fell strongly from almost 15% in 1996 to 10% in 2013. The share of trade (no. 7) did not change between 1996 and 2013 and remained at almost 18%. The share of jobs in health care (no. 17) rose in that period from about 12% to 16%. Very small industries in terms of the number of jobs are mining (no. 2), production and distribution of electricity and natural gas (no. 4), winning and distribution of water and waste control (no. 5) and real estate (no. 12). Large changes in other industries' share of jobs are the drop in agriculture (No. 1), the rise in high tech business services (no. 13) and the fall in education (no. 16). Employment shares of the other industries remained about the same in 1996 and 2013.

Figure 6. Distribution of jobs over industries, Netherlands, 1996-2013



Source: LISA

Table 1. Industry classification

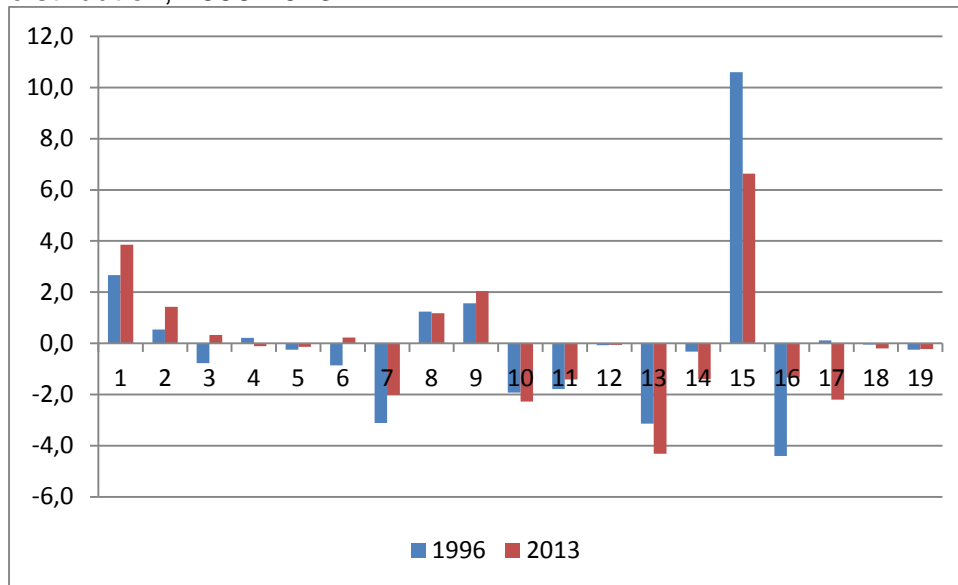
No.	Industry name
1	Agriculture, forestry, fishing
2	Mining (oil, gas, sand, clay, ...)
3	Manufacturing
4	Production, distribution and trade of electricity, natural gas, steam, cooled air
5	Winning and distribution of water, waste control and sanitation
6	Construction
7	Car trade, wholesale and retail trade
8	Transport and storage
9	Accommodations, distribution of food and drink
10	Information and communication
11	Financial institutions
12	Real estate (renting and trade)
13	Advertising, research and other specialized business services
14	Renting of movables, other business services
15	Public sector, government services, compulsory social insurances
16	Education
17	Health care
18	Culture, sports, recreation
19	Other services

3.2 Wadden area

The employment structure in the Wadden area, and any subparts of it that we observe, will all be relative to the national employment structure. In that way we can observe in which industries employment is strong in the area compared to national and in which industries it is not. Again we look at this distribution in 1996 and 2013 to assess a development in time.

Figure 7 shows the employment distribution over the 19 industries (see table 1) of the Wadden area including the islands, relative to the national distribution that was shown in figure 6. There is obviously one industry that dominates in figure 7, and that is the public sector (no. 15), as it fell strongly with 4 %-points between 1996 and 2013. This is clearly due to the presence of jobs of the Royal Navy in Den Helder and the already mentioned change in draft system in 1997 that caused a large fall in the number of naval jobs in Den Helder.

Figure 7. Distribution of jobs over industries in Wadden area relative to national distribution, 1996-2013

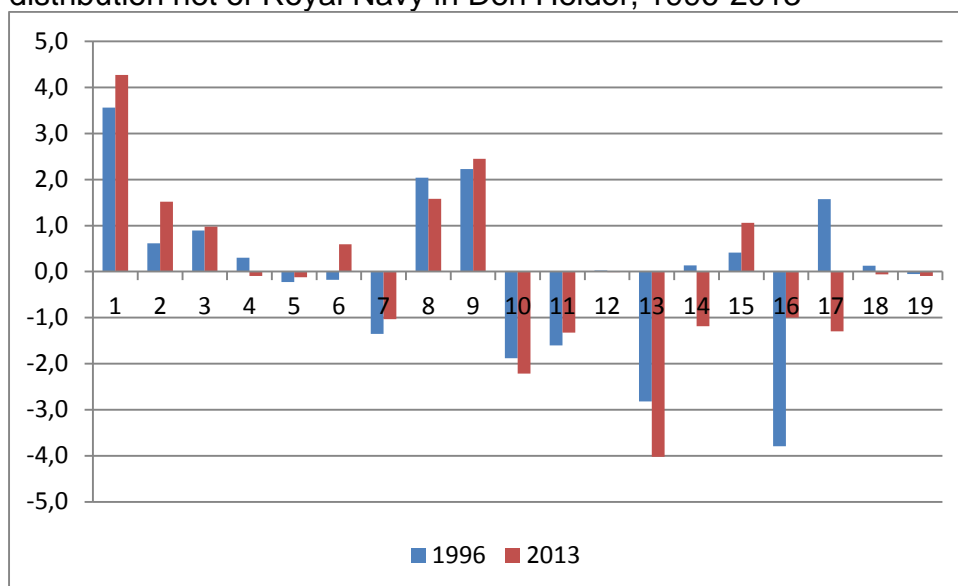


Source: LISA

In order to shed more light on possible changes in other industries, figure 8 present again shows the employment distribution of the Wadden area but now excludes jobs at the Royal Navy in Den Helder. Figure 8 shows that agriculture in the Wadden area is very strong relative to the national share of jobs in agriculture. This relatively high share of jobs even rose further between 1996 and 2013. So the agriculture is still an important sector in the Wadden area. Also the shares of jobs in the transport (no. 8) and accommodation (no. 9) industries are relatively high. Transport may have to do with shipping and transport over sea, which are important economic activities of the harbours in the area. The high share of employment in the accommodation industry is clearly related to the importance of touristic activities on the Wadden islands.

The shares of other industries are all on or below the national employment shares. High tech business services (no. 13) fell from -3 %-points below national in 1996 to -4 %-points in 2013. Also share of jobs in information and communication (no. 10) and in financial institutions (no. 11) were much lower than corresponding national shares. Clearly these activities are usually concentrated in large and highly populated urban areas and they are not present in the Wadden area. It can also be observed that the job share of education improved relative to national in that period, while that of health care fell. We will return to this issues in the part of the Wadden harbours.

Figure 8. Distribution of jobs over industries in Wadden area relative to national distribution net of Royal Navy in Den Helder, 1996-2013



Source: LISA and Royal Navy Den Helder

3.3 Wadden harbours

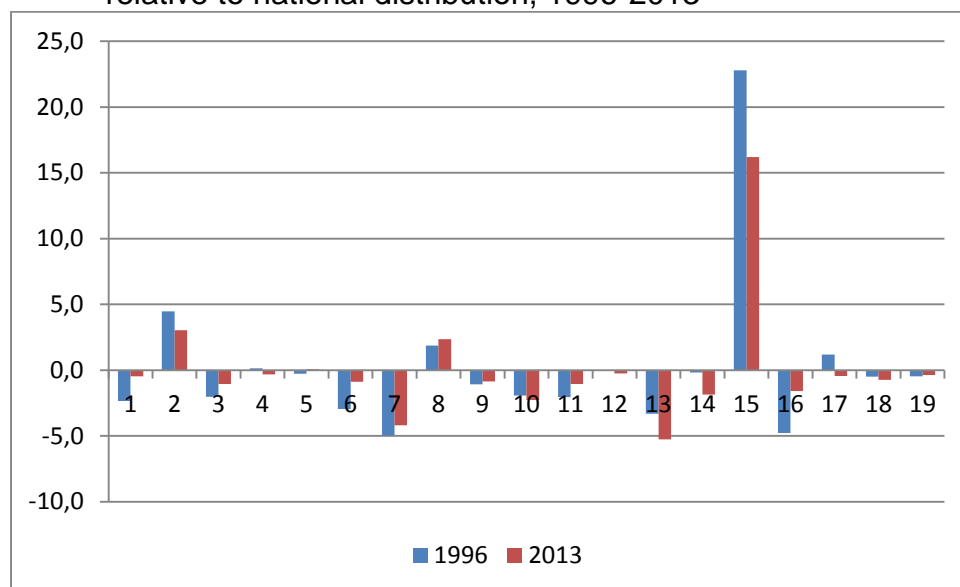
The employment structures of the three major harbours in the Wadden area are important to show as they form major employment cores within the part of the Wadden area that is more or less directly related to the Wadden Sea. Clearly, the employment structure of the harbours in figure 9 confirms the huge role of the Royal Navy in Den Helder. This, however, does not really mean that Den Helder is important as a nucleus of employment within the Wadden area, because these navy jobs are not specifically related to the Wadden Sea. Therefore figure 10 shows again this same employment structure of the harbour municipalities in the Wadden area, but now excluding jobs of the Royal Navy in Den Helder.

Figure 10 reveals a number of peculiarities. First, the high level of the mining industry (no. 2) in the harbours.² Clearly, mining activities are very much focused on harbours. It may very well be that for example personnel on oil and gas rigs on the sea are listed as working in one of these harbours, when they are in fact at sea. The strong presence of jobs in transport (no. 8), particularly in transport over sea, is also related to harbours. Note that financial and business services (No. 10 through 13) are underrepresented in the harbours compared to their shares in national employment. The employment share of high-tech business services (no. 13) in those harbours has fallen dramatically between 1996 and 2013. This might be the result of the economic crisis, which struck here harder than nationally. Finally there are two other things that stand out. First, the relatively strong improvement in jobs in education relative to national. Second, the relatively strong deterioration of health care relative to national. The relative improvement of employment in education may

² We do note here that for mining the first year of figure 9 and 10 is not 1996, but 1998. The reason is that in the harbour of Delfzijl there was no mining industry, while after 1998 there were over 1300 jobs in that industry. This has to do with a reclassification of the industry type, which resulted that a firm or a number of firms moved into industry 'mining' (no.2 in table 1).

be related to the fact in fact this employment has levelled off in the municipalities, while in fact the population – and also those with a school-going age of under 15 – has dropped.³ The deterioration of jobs in health care has likely to do with the fact that the hospital ‘Oranjeoord’ in Harlingen closed down in the period 1996-2013.

Figure 9. Distribution of jobs over industries in Wadden harbours relative to national distribution, 1996-2013



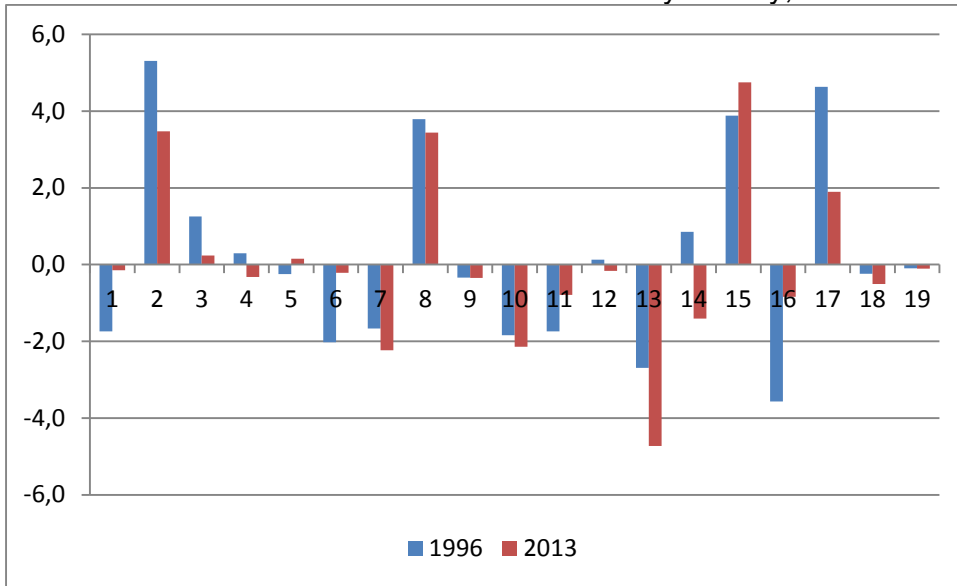
Source: LISA

3.4 Wadden islands

The employment structure on the Wadden islands is shown in figure 11. From this figure it becomes apparent that there is, as we have seen in other figures, one dominating industry: the accommodations industry (no. 9). This has clearly to do with the huge importance of tourism, and all the jobs that go with that, on the islands. Another industry that is still dominating relative to the national situation is agriculture. Other industries have an importance on the islands that is comparable to, or below, their national employment shares. What can be observed is the fact that the employment share of the accommodations industry (no. 9) is high (20%, i.e. one in five jobs) did not really change between 1996 and 2013. The employment share in other industries did change relative to national shares. The job share of manufacturing shrunk faster on a national scale than it did on the islands, so the relative share of the Wadden islands improved. Obviously the economic crisis struck less hard on the island. The same holds for education. The relative share of employment in health care, on the other hand, deteriorated compared to the national share.

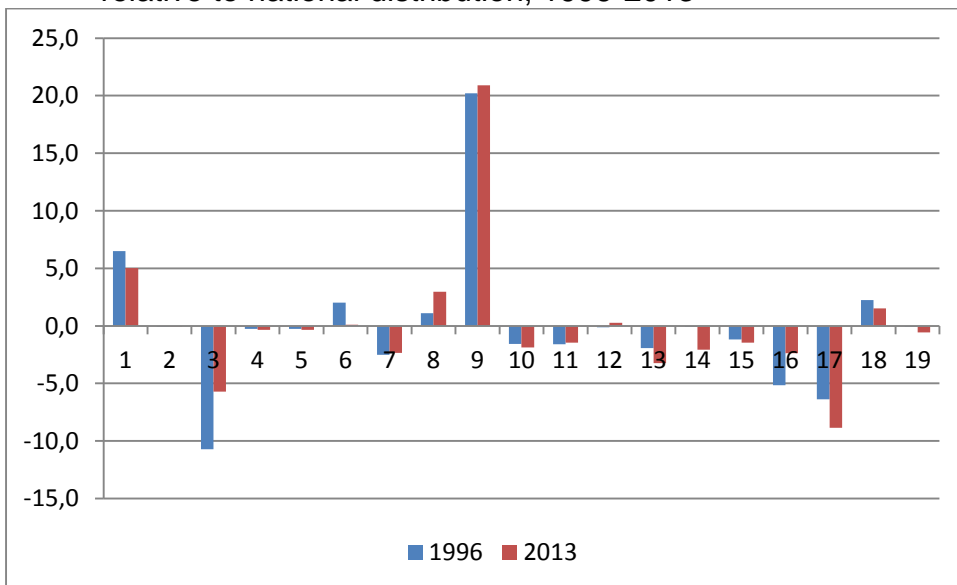
³ See ‘Population and population developments in Wadden area 1988-2014’

Figure 10. Distribution of jobs over industries in Wadden harbours relative to national distribution net of Royal Navy, 1996-2013



Source: LISA and Royal Navy Den Helder

Figure 11. Distribution of jobs over industries in Wadden islands relative to national distribution, 1996-2013



Source: LISA