

## How will we make a living and how will we work and live in 2030

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Denmark is a rich country despite its lack of natural resources. In spite of the oil-adventure in the North Sea, it's childhood wisdom for a lot of Danes. That's why we need to live off of our education and what abilities each person has. Since the first public school law 200 years ago, in the year after the state bankruptcy and the defeat in the Napoleonic wars, it's been a mantra in Denmark that has made us a rich nation. But over the years, the word education was joined and then replaced by the word knowledge. From the mid 1980, after the Cold War ended and with the increased globalization of production, the education was replaced by the new mantra of knowledge. We were now to live off of selling knowledge to the rest of the world. But is it true that we're making a living off knowledge and what are we going to live off of in 2030?

### What are we living off of today?

There are a lot of people working in Denmark, who have many different tasks they do in their jobs. That could for example be the many important tasks that are being done in the public sector. But the public sector doesn't contribute a lot to the earnings in the country – if any. We can cut each other's hair, offer all sorts of services, have a large public sector and produce food and other goods for our own consumption, but the most important thing in the Danish economy is in regards to other countries. What do we sell to other countries and what do we buy? It's all about the balance of payments – did you forget about that term? It went out of fashion when the balance became positive in the start 1990s.

But what do we actually earn in Denmark? The following list shows the net profit on the balance of payments for the most important sectors. In other words, these are the sectors that Denmark lives off of:

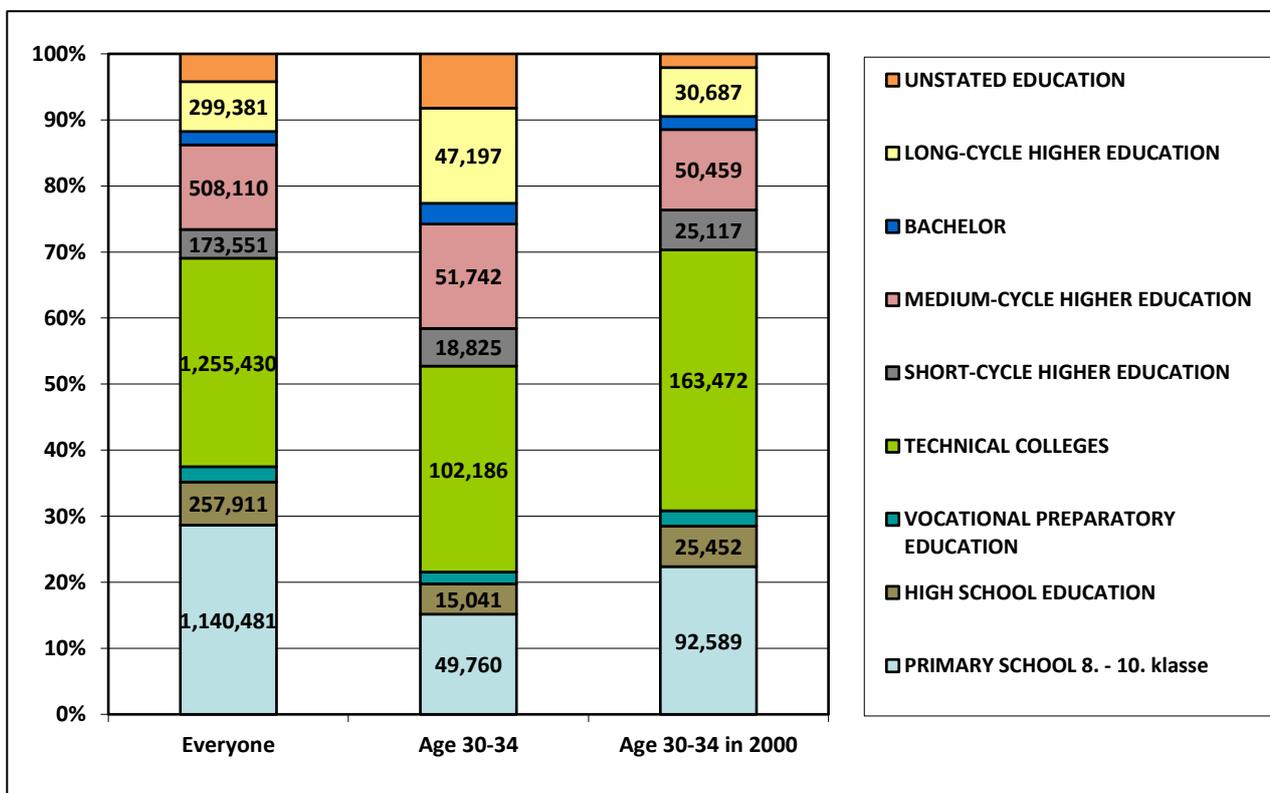
- Export industrial goods 68 billion (medicine and medico 39 billion, machines 19 billion, furniture 5 billion, instruments 5 billion)
- Export agriculture (70 billion)
- Sea transport (52-60 billion)
- Goods-attached services (17-18 billion)
- Goods-attached services, merchanting (16-19 billion)
- Salaries across borders (10-16 billion)
- Aerial transport people and goods (10 billion)
- Royalties and licenses (3-4 billion)
- A few engineering services (2-4 billion)
- The rest result in deficits – we spend more on tourism abroad, for example, than we make on foreign tourists in Denmark.

So we're a nation living off of agriculture, industry and shipping and who get a substantial contribution to our earnings from servicing windmills, mining facilities etc. (goods-attached services) as well as retail abroad such as JYSK, Netto and Bestseller as the most important ones (goods-attached services, merchanting) as well as salaries abroad from air- and freight transport. Royalties and licenses are pure

knowledge and the sales from this only gives around 3-4 billion kr. per year. There are intervals on the amounts because they are viewed over a slightly longer time period and fluctuate from year to year. How does that align with globalization?

In Denmark globalization initially meant downsizing jobs in traditional sectors such as industry and agriculture, but it didn't lead to a decline in earnings from these sectors – more like the opposite. When jobs were cut, it wasn't because the production in Denmark disappeared, but rather because it was more efficient and made more profitable and thus capable of surviving. The first phase of globalization was automation and to an extent also moving out manual labor jobs. Now we're entering a new phase, though, where the global competition in knowledge- and service sectors will mark the future.

**Figure 1 Workforce education level in Denmark (Highest level completed education 2014)**



What we live off of is reflected in the composition of qualifications in the job market. There's actually only 7.5% of the population in the active population with an academic education – totaling around 300.000, while there are 1.25 million skilled workers and 1.14 million unskilled workers in the active population. In addition there are also around 250.000 unskilled workers with high school education – i.e. Students without technical exams.

At the same time we see that the trend is heading towards more academic educations, since the 30-34 year olds have higher degrees today than they did back in 2000. The share and number of skilled workers is actually dropping in the 30-34 age group, from 40% to 30%, while academic educations rose to almost 14%

over the past 14 years in the 30-34 age group. Meanwhile there were a lot fewer unskilled workers in the 30-34 age group.

### **A small, open economy in 2030**

Denmark is a small, open economy which in a lot of areas is dependent on other countries and the globalized world. Our total import and export for the last 50 years have been larger than our GDP, which means that more value in goods and services are moved across our borders, than is collectively created in a year. That means that as a nation, we're extremely dependent on the global currents. Globalization is starting to enter its second phase – globalization of services and knowledge production – at the same time as the location of industrial production is starting to change globally through reshoring – bringing home industrial workplaces to OECD countries, especially from the far-eastern production countries like China etc. <sup>1</sup>

The reshoring-wave that is coming is due to a lot of production being both better and cheaper in our part of the world than in China for example, where the wages are high, the control is limited and logistics that don't work optimally. In 2014 Lenovo opens their new factory for the production of laptops for the American market. The factory is located in the USA. GE also opened a new factory for large household appliances in the USA which is located in Kentucky and not in Asia. Ecco built a new factory in 2013 for shoe production in Portugal, and brought back their production to Europe. Danfoss and Grundfos also place their production in Denmark, which just a few years ago, they wanted to place abroad. In addition is O-series production in Denmark, where all the innovative benefits can be attained by creating a production line in Denmark for 6-12 months and then moving it abroad and letting skilled workers, engineers and unskilled workers go with it to make sure everything works.

We are also the world's biggest producer of mink pelts as well as the only country with veterinary standards high enough to have export permissions for pork for both Japan and China. Arla is growing and the Danish milk-producers are increasing their production with the same amount of cows. So we're not really done being an agricultural nation – quite the opposite.

When we look at which sectors earn money for the country and create a profit on the payment balance we see on the industry-side, by 2030, that we'll make a living on industrial businesses, agriculture and shipping and maintenance work of industrial facilities and machines such as mines, windmills, cement factories etc. as well as retail in other countries via Netto, Jysk and Bestseller and other big retail chains. At that time, knowledge still won't take up much space as an export, but all companies are based on knowledge and some very much so, but not just knowledge made in Denmark. We're an agricultural, industrial, shipping and commercial country far more than a knowledge-society when we look at the balance compared to other countries even in 2030, and therefore also look at Denmark as an integrated part of an open, globalized economy marked by competition and the exchange of goods and services.<sup>2</sup>

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<sup>1</sup> The Economist, Special report: *Outsourcing and offshoring, Reshoring manufacturing - Coming home*; Jan 19th 2013 | [From the print edition](#)

<sup>2</sup> [www.fremforsk.dk](http://www.fremforsk.dk) – Keynotes and articles, see the extensive documentation of Denmark's geography of industry

So even though the population has changed in 2030, we're still living off of the work done by unskilled and especially skilled workers, but there are others who also play a slightly larger role. The Danish exports are still marked by industry (including the medical industry), agriculture and shipping. Knowledge isn't a big export, but mostly just an element in creating a product or delivering a service of interest to the rest of the world. But new niches have arisen and they do have an impact on the exports.

When the composition of our exports hasn't changed more, it's because it's one of the most stable things in a country's development through time. The cultural traditions, the natural resources and the financial structures in certain industries as well as the familiarity with certain industries and production areas a country builds through its education- or learning systems are all only slowly changed over time. But new subcategories are continually being made. Windmills and renewable energy were built over a period of 40 years and are therefore still relevant as an area of industry in 2030, even though the falling energy prices for several years have made it more difficult to make a profit in these businesses.

Domestically some industries will of course have seen significant changes. Retail will go through a long and difficult phase of structural development. On the one hand, it will lead to the closure of a lot of stores and changes in many shopping- and main streets, meaning that in 2030 we'll have 35-40% fewer stores, but with skyrocketing internet sales on the other hand. Even grocery shopping will change. In 2030 a large and increasing share of groceries will be delivered to people's homes via distribution systems, while the supermarket category for the most part changes to discount stores, which will carry a wider range of goods than they did in 2014. At the same time, these stores will be pickup-points for the delivery of special goods from all over the world. It won't be the countryside or the small towns that lose the most in this development. On the contrary, it will for the most part be the medium sized towns that will have lost large parts of their shopping areas. They're lost to the big cities and to online shops and cross-over stores with exhibition- and salesrooms combined with online sales. Grocery stores are built and sustained if the foundation in the population is big enough. Discount stores need far fewer customers than the traditional supermarkets. That's why supplies in rural areas are still present.

Internet commerce means that the rural areas will be more or less as well served as the smaller cities and almost the same as the medium sized cities in 2030. As the only ones outside of the internet-based shops, the largest cities will be the winners when it comes to retail, with around 40-50% of the total retail sales in 2030.

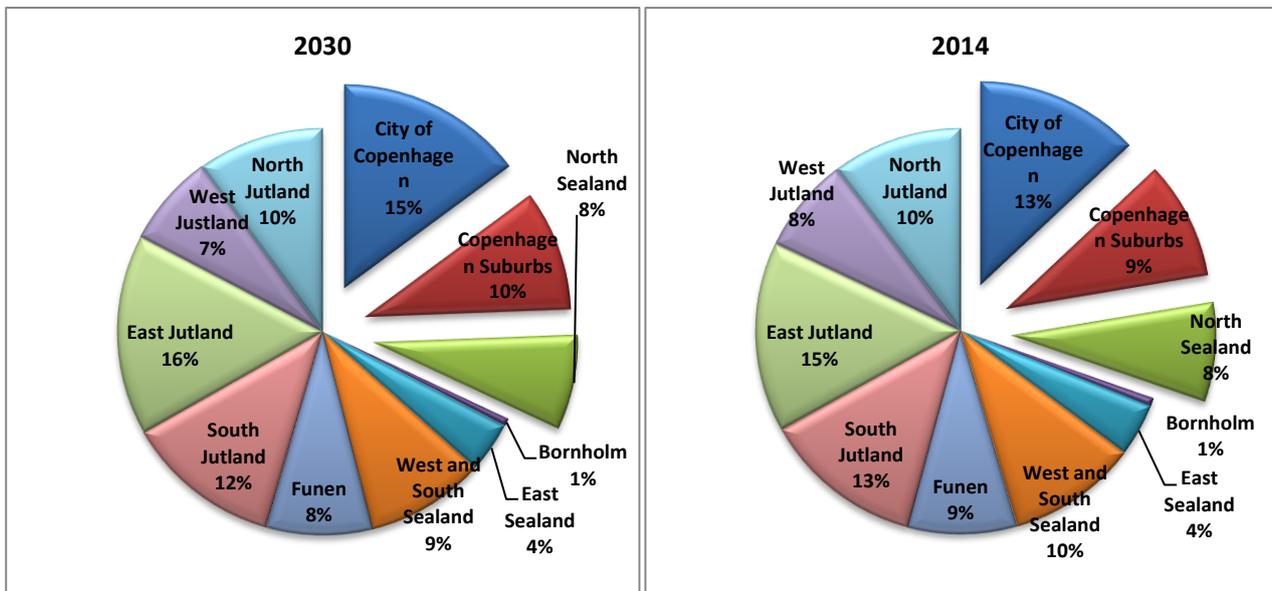
### **Age and work**

Until 2030 there will be a change in perception when it comes to age and work. First of all, it'll be normal to work till you're over 60. When the pension age closes in on 70, which according to government policy will happen by 2033-2034, the perspective will move towards working till you're 70. So pensioners will be people over 68-70 or more in 2030. At the same time we'll see a more fluid pension age where many work less rather than stopping entirely. It however still doesn't change that there will still be people who get worn down by working, and that there will be people who retire by their early 60s or even earlier. What everyone has in common will be a raising of the official pension age.

### **Population settlement and placement**

The overall pattern until 2030 will be stability in how the population is distributed in the different regions. Copenhagen will have 15% of the population as inhabitants in 2030 versus 13% in 2014 and the suburbs of Copenhagen will see a rise from 9% to 10% of the population. East Jutland will see a rise from 15% to 16% of the population. We will see a decline of 1% in West Jutland, South Jutland, Funen and West Sealand.

**Figure 2. Population distribution per region in 2030 and the distribution in 2014 (DK statistics prognosis)**



This stability until 2030, that is shown in the 2014 population prognosis by Danmarks Statistik, is a result of the population composition in 2014, where many people are living longer and where we move the most when we're young and become a lot more stable when we're mid-30 and upwards. It does however also cover a growing population. Almost the entire population growth over the coming 15 years will go to the area around the Capital and eastern Jutland, most to the city of Copenhagen and Aarhus. There will however also be a little growth in south Jutland and north Jutland that will experience a growth of around 10.000 more inhabitants each until 2030 compared to 2014.

Funen, Jutland and Sealand outside of Copenhagen won't become empty rural areas without any populations by 2030. It'll more likely be a question of smaller rearranging of the population. So the population will migrate towards two-three city centres in the country, but the movement is slow. It'll be moving at a glacier-pace like most other demographics do.

By 2030, 67% of the Danish population will live outside of the greater Copenhagen area, in 2014 it's 70% living outside it, and that's when you include north Sealand in the greater Copenhagen area.

It's when we don't take age into consideration, because if we do, some big differences arise. In addition are also differences between cities and rural areas. It plays a significant role in the rest of the country, outside of the greater Copenhagen area.

**There is still a lovely country**

The year 2030 is far away in the future. 15 years is a long time for most of us. Just think back to 1999 – sometime in the past millennium. Before 9-11, before Putin, before the Arab Spring, before Ipod, Iphone etc. The year before Nokia 3210, before everything was online, before cloud computing and before Noma, financial crisis and Grandma-food, before the upturn and Hummer.

But for a country like Denmark, with a 1000 year history, it's not long at all. We will be able to retain and develop the competencies and advantages we have today on the world market for 15 years. In a world with a fast growing middle class, there will be a demand for higher quality, better toys, safe and good food and medical treatments of a growing group of elderly, so that we don't suddenly have to sell some of the things we don't have. The most important thing is probably to make sure that we have enough skilled labor in the future. It appears that unskilled labor and academics will keep coming more or less on their own.