

# 17\_\_sok\_\_2008\_\_h23\_\_utf1

## Setup and Importing

Data from SSB(04544) work hours

permisjon data child

	country	tot_full_rate	fem_emp_rate_0_2	fem_emp_rate_6_14
1	Austria	47.3	69.7	81.5
2	Belgium	12.8	63.8	74.7
3	Canada	20.5	69.6	79.5
4	Czech Republic	51.7	20.9	85.4
5	Denmark	25.3	76.9	86.7
6	Estonia	82.0	27.3	86.1

## Eurostat data

```
# A tibble: 6 x 5
  unit    icha11_hf geo    time    values
  <chr>   <chr>    <chr> <date>   <dbl>
1 EUR_HAB HF1      AT    2021-01-01 4298.
2 EUR_HAB HF1      BE    2021-01-01 3717.
3 EUR_HAB HF1      CY    2021-01-01 2145.
4 EUR_HAB HF1      HU    2021-01-01  848.
5 EUR_HAB HF1      IT    2021-01-01 2141.
6 EUR_HAB HF1      LI    2021-01-01 6306.
```

## eurostat Clean

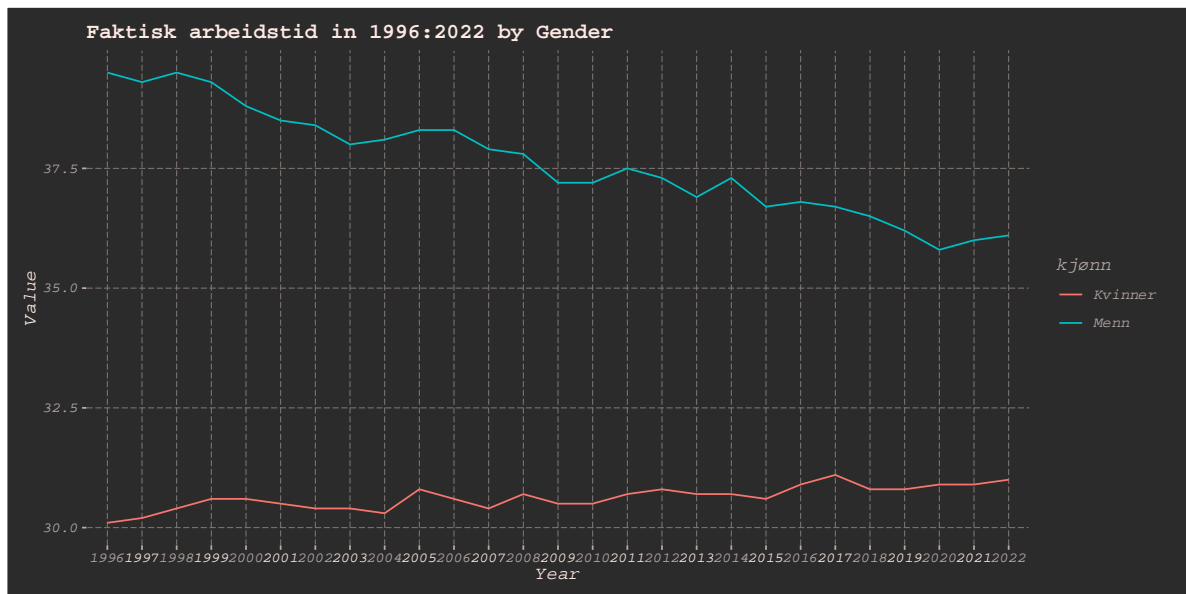
```
# A tibble: 6 x 3
  PC_CHE_HF3 PPS_HAB_HF1 country
  <dbl>      <dbl> <chr>
1    17.9      2977. Austria
2    19.8      2889. Belgium
3    37.8       771. Bulgaria
4    25.3      3283. Switzerland
5    33.7      1072. Cyprus
6    14.1      1970. Czechia
```

## Utfordring 1.1:

a)

Statistisk Sentral Byrå (SSB) har data (tabell 04544) som viser gjennomsnittlig antall arbeidstimer blant menn og kvinner i Norge. Bruk disse dataene for å vise empiriske kjønnsforskjeller i valg av arbeidstimer for menn og kvinner. Forklar dine empiriske observasjoner ved bruk av økonomisk teori. Din forklaring skal inneholde grafisk illustrasjon av teorien. NB: i denne oppgaven skal du fokusere på forskjeller mellom menn og kvinner.

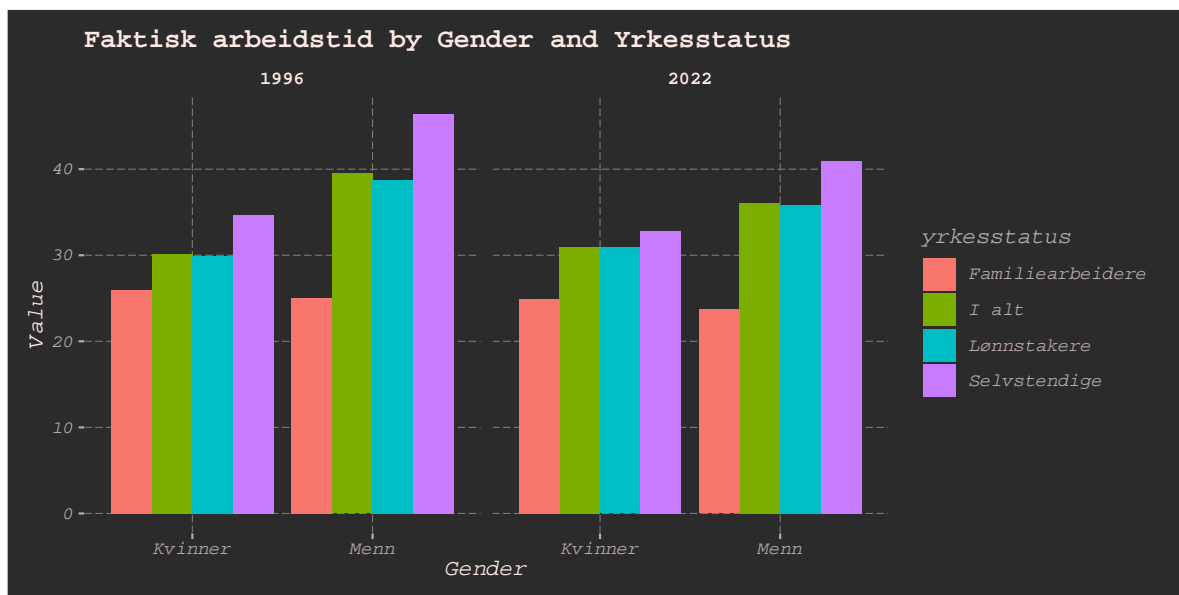
## Work Hours Over the Years



### Empirical Observations:

The line graph reveals distinct trends in average work hours for men and women between 1996 and 2022. Men's average work hours have notably declined from approximately 39.5 to 36.1, while women have experienced a slight increase, from 30.1% to 31%.

### Current Year vs. 1996 Data



### Empirical Observations:

Comparing data from 2022 and 1996 highlights the enduring, yet narrowing, gender disparity in work hours. The largest disparity in actual work hours between both genders exists among the “selvstendige” (self-employed). Interestingly, women outpace men by a few percent in the category of “Familiearbeidere” (family workers).

### Interpretations

These trends could be created by multiple factors, ranging from labor market conditions to personal choices and cultural influences, contribute to these observed trends. The decline in men's work hours from 39.5 to 36.1 suggests shifts in either personal priorities, government policies, or both. Conversely, the modest increase in women's work hours might reflect their efforts to advance in their careers, possibly fueled by societal movements towards gender equality.

These variations indicate that men and women value leisure and consumption differently, thereby maximizing their utility under different constraints and preferences.

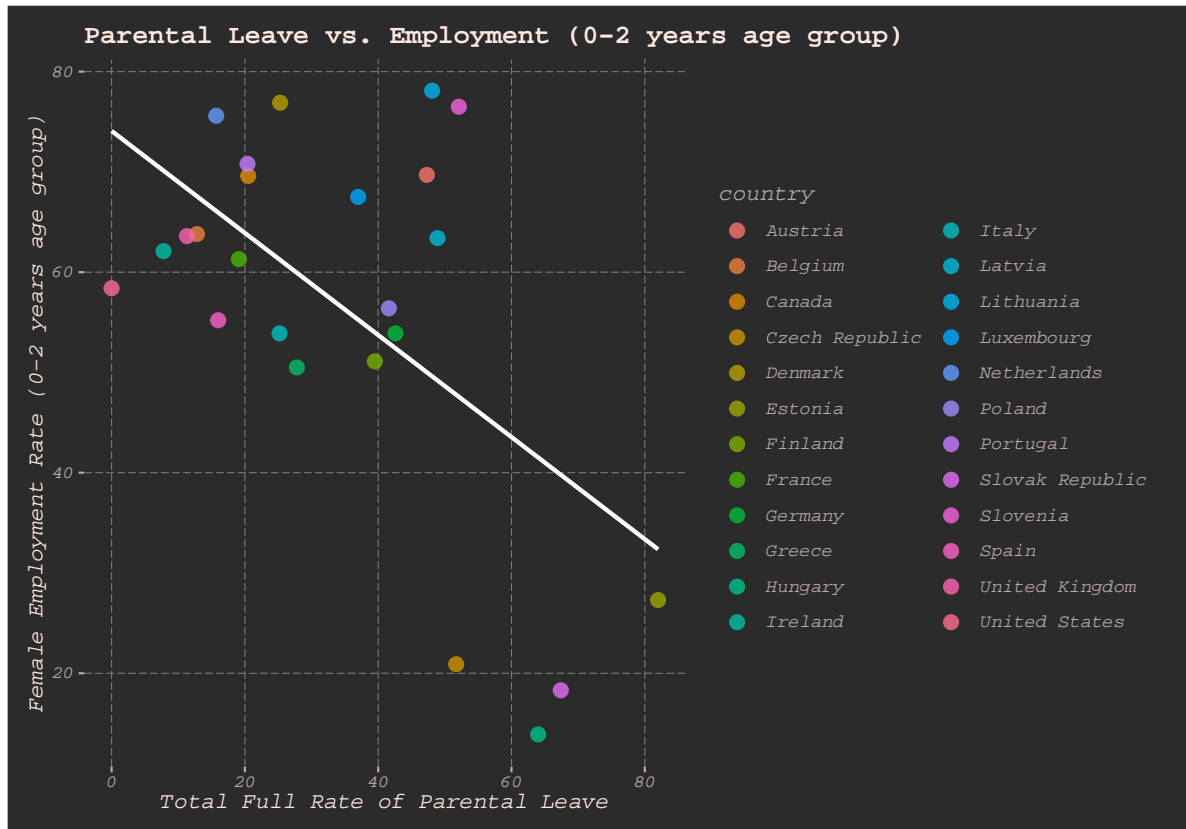
The Human Capital Theory proposes that investment in skills and education impacts such choices. Women's increasing work hours could be a result of greater investment in their human capital, which is also likely to place a higher value on their leisure time due to potentially higher salaries in skill-intensive jobs.

Furthermore, behavioral tendencies seen more when studying psychology could play a role. Men are often more assertive, and may be more likely to request overtime or extra work, thus increasing their chances of being offered additional hours later. On the other hand, if women place a higher value on leisure, they may decline such opportunities, which would subsequently reduce their chances of being asked later.

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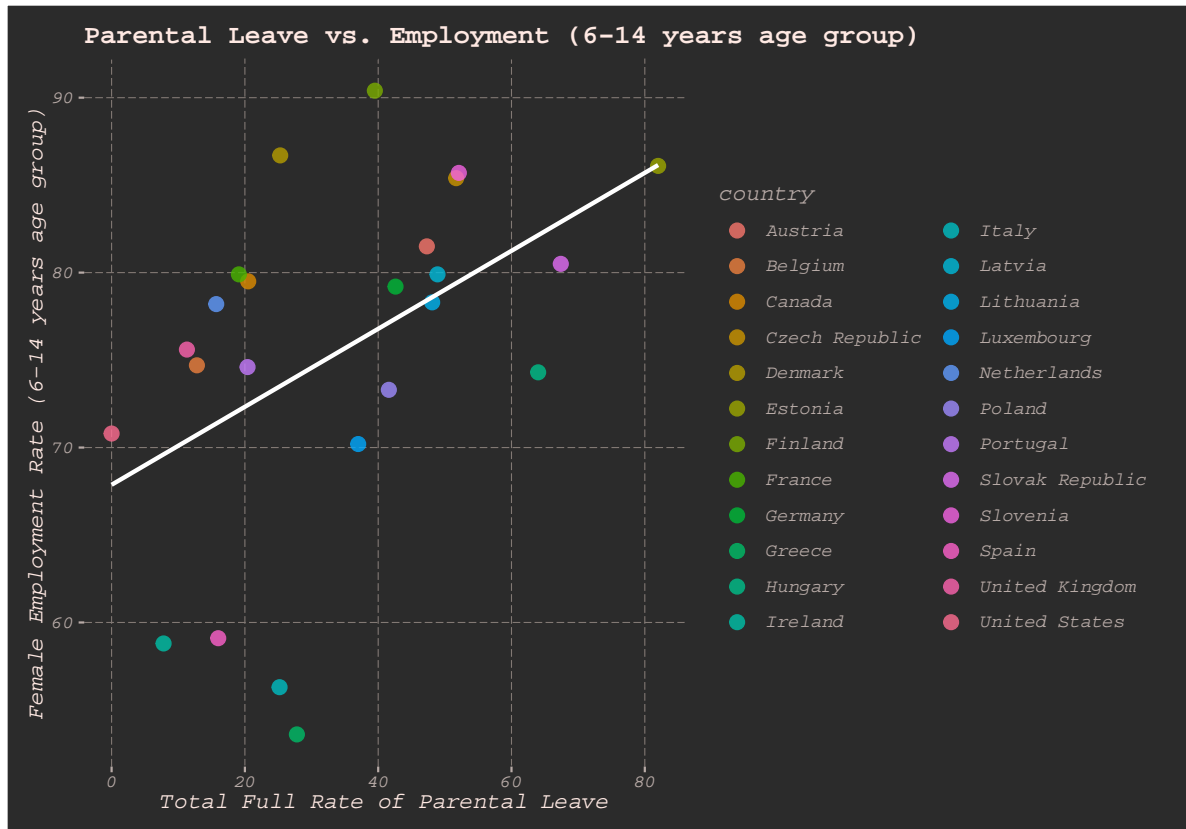
**b)**

Dette datasettet inneholder informasjon om generøsiteten av foreldrepermisjonsordninger og mødres yrkesdeltakelse i 24 OECD land i 2021. For å gjøre ulike lands rettigheter sammenlignbare presenteres permisjonsordningenes gunstighet ved hjelp av «full rate equivalent» ( $\text{tot\_full\_rate} = \text{uker med 100\% støtte}$ ), hvilket tilsvarer foreldrepermisjonens varighet i uker multiplisert med utbetalingssats i prosent av gjennomsnittlig inntekt. Bruk datasettet til å lage to diagrammer som viser sammenhengen mellom lengde på betalt foreldrepermisjon og yrkesdeltakelse blant kvinner. I det ene diagrammet skal du bruke data som beskriver sysselsetting blant kvinner med barn i alderen 0-2 år ( $\text{fem\_emp\_rate\_0\_2}$ ), og det andre skal du bruke data på kvinner med barn i alderen 6-14 år ( $\text{fem\_emp\_rate\_6\_14}$ ). Diskuter, basert på disse diagrammene og økonomisk teori, følgende påstand: «Gunstige permisjonsordninger ved fødsel sikrer høy yrkesdeltakelse blant kvinner på lang sikt».



### Parental Leave vs. Employment (0-2 years age group)

The scatter plot of tot\_full\_rate against fem\_emp\_rate\_0\_2 reveals a nuanced landscape. Notably, Estonia, with the highest rate of parental leave, shows one of the lowest rates of female employment (around 27%). In contrast, the United States, lacking any formal paid parental leave, shows a female employment rate close to 60%. Countries with less than 50



### Parental Leave vs. Employment (6-14 years age group)

In the second scatter plot that correlates `tot_full_rate` with `fem_emp_rate_6_14` reveals a marked shift as children grow older. Estonia's female employment rate soars from 27% to 86%. Meanwhile, the United States, starting at approximately 60% for mothers of children aged 0-2, inches over the 70% mark for those with kids aged 6-14. In general, countries with liberal parental leave policies tend to experience a significant uptick in female employment as children age.

### Economic Interpretations and Implications

Raising a child comes with costs, which usually manifest as either decreased income or less available time for parents. With a generous parental leave system in place, women may prioritize the well-being derived from childcare over immediate labor force participation. This behavioral adjustment can be well-explained by the labor-leisure choice model, which describes how individuals allocate their time between labor and other activities to maximize utility.

Moreover, the data aligns with the human capital theory. The increase in female employment rates as children age may signal an opportunity for mothers to invest in skill development and further education. This investment could lead to higher-paying or more personally fulfilling job opportunities.

But as we have seen in the data, there are some variation in the data that can come from everything from cultural factors to regulations like job retention. But the trend in general shows that there are a positive effect in longer parental leave.

So the trend supports the idea that “Gunstige permisjonsordninger ved fødsel sikrer høy yrkesdeltakelse blant kvinner på lang sikt”

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c)

### **The Importance of High Female Labor Force Participation and High Fertility Rates for the Economic Sustainability of the Norwegian Welfare Model**

Increasing female participation in the workforce has a direct impact on the sustainability of Norway's welfare model. A more robust female presence in the labor market expands the tax base, providing the government with additional revenue to fund essential welfare services.

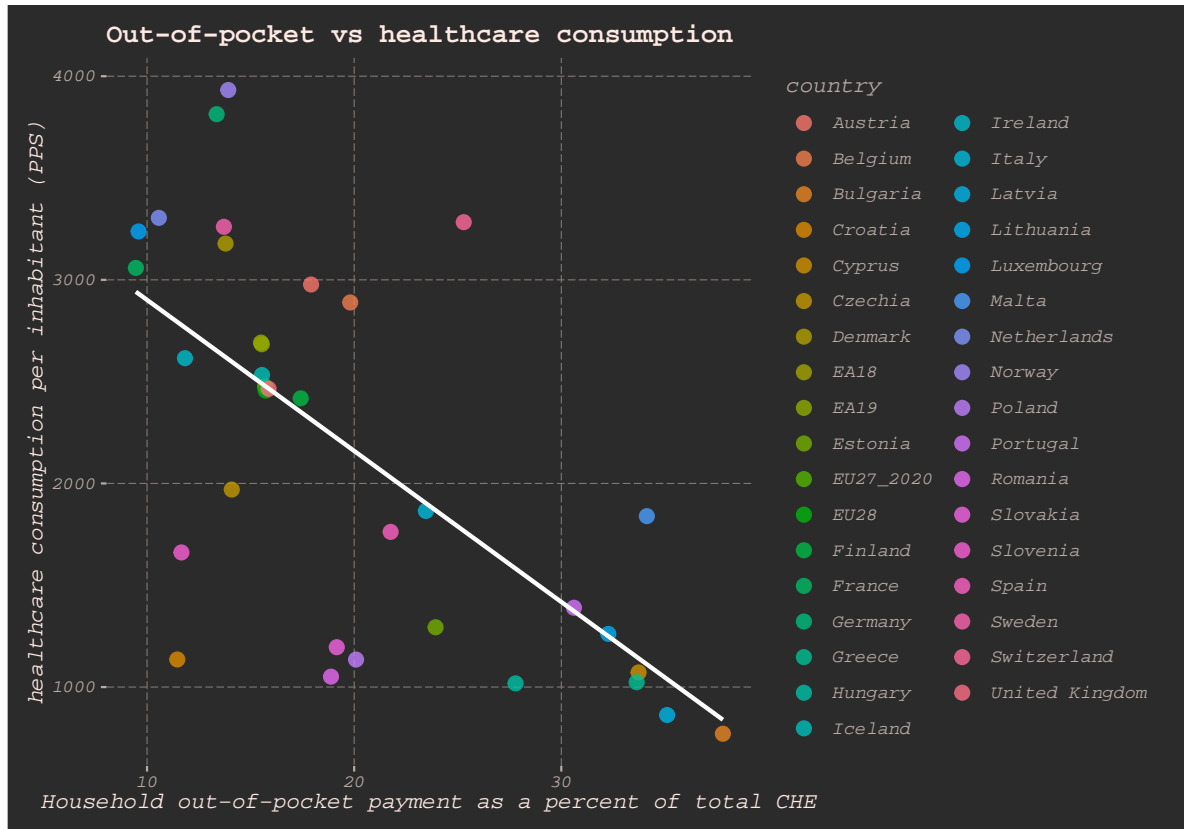
Conversely, a fertility rate below two children per couple could lead to a shrinking population over time. Such a demographic shift would intensify the burden on the welfare system, as fewer workers would be available to support a growing elderly population.

Promoting active labor force participation among women can mitigate these challenges. By maintaining a high level of female employment, the working population grows, thereby easing the pressure on welfare provisions. Policy measures, such as generous parental leave, play a critical role in facilitating the re-entry of women into the workforce post-childbirth.

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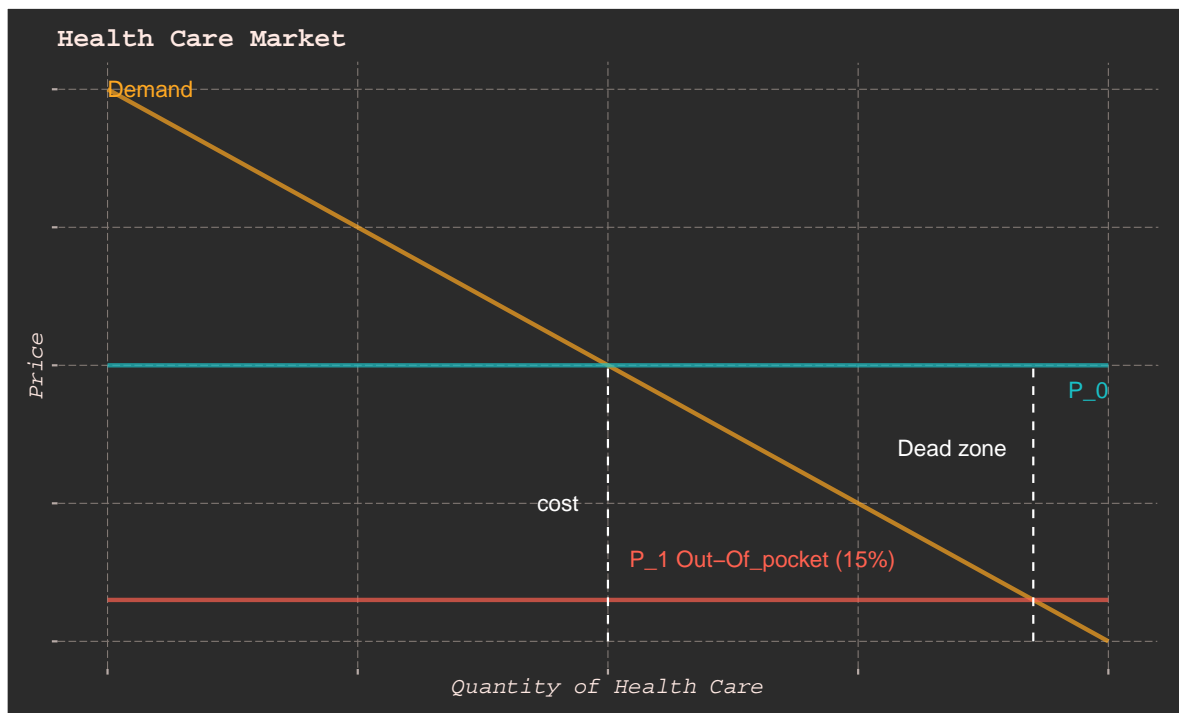
## Utfordring 1.2



### Empirical Observations:

Here we can see a scatter graph on the relationship between out-of-pocket health care payments and per capita healthcare consumption per inhabitant. The data compellingly suggests that an increase in the proportion of out-of-pocket payments correlates with a decrease in per capita healthcare spending. For instance, Norway, with an out-of-pocket rate of around 15%, enjoys one of the highest levels of healthcare consumption per inhabitant. Contrast this with Bulgaria, where a much higher out-of-pocket rate of 37.8% coincides with the lowest healthcare consumption per inhabitant.





Here we have a model where we use ‘Price per Unit’ for the y-axis and ‘Quantity of Health Care’ for the x-axis. Two horizontal lines define the landscape: one representing the supply level ( $P_0$ ), and the other indicating a 15% out-of-pocket payment. The demand is portrayed by a downward-sloping line.

A usefull feature here is the “dead zone,” which lies under the  $P_0$  line but above the demand curve. This area represents a system inefficiency, a zone where the marginal utility of health services is outweighed by the marginal cost.

To comperere this with our scatter plot. The decrease in healthcare consumption observed in the scatter graph could be an outcome of the inefficiencies highlighted by the supply and demand model. basically, as the burden of out-of-pocket expenses rises, individuals may steer clear of services within this “dead zone,” thereby reducing overall healthcare consumption.

### **Diskuter fordelingseffekter av økte egenandeler.**

There are some consequences that can come from increasing or lowering the co-payments for healthcare services, as we just went over there is the fact that fewer people will search out medical help when needed if the co-payment is to large, putting people out of the labor force and becoming a liability for the state or community. There are also the fact that policy shift might disproportionately impact various socio-economic groups.

Increased copayments may serve as a significant barrier for low-income individuals, affecting

their ability to access essential healthcare services. This is particularly concerning when the increased copayments deter them from seeking preventive care, possibly leading to more severe health issues down the line.

Some demographic often requires frequent medical attention. Increased copayments could either make healthcare unaffordable for them or force them to prioritize healthcare over other essential needs.

There is also the fact that increasing copayments, could lead to a shift in how resources are used within the healthcare system. For instance, there might be less focus on preventive care and more on acute care services, as people are only coming in for more acute reasons, which are generally more expensive as well.

One intended effect of copayments is to discourage overuse of healthcare services. Which can allow for better managements of resources.

There are also the financial stress from higher out-of-pocket costs to consider. High cost can have mental health implications, affecting overall well-being and potentially leading to further health complications. Which leads to more or equal resource usage.

So a certain amount of out-of-pocket health care payments can be useful to lower the dead zone the state has to pay, lower resource usage, lower work force needed. But at the same time keep it low enough that it does not create a large divide between socio-economic groups, and forcing people out of the workforce because of illness or injuries.