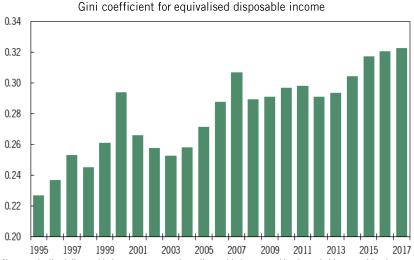# Summary

The 2019 Long-term Survey has focused on inequality. By international standards, Sweden has long had small inequality in income, but these have been increasing since the early 1980s (see figure 1). This increase in Sweden has been relatively large, and Sweden is approaching the level in many other European countries.

Figure 1   Development of income inequality

Gini coefficient for equivalised disposable income

Note: equivalised disposable income corresponds to disposable income, taking household composition into account. Sources: Statistics Sweden and own calculations.

The increasing income inequality in Sweden and internationally have generated extensive international discussion on both the causes of this trend and the possible need for measures to reduce these differences. However, the focus of the debate has shifted. Previously, the debate was largely based on the notion of a conflict between equality and growth, i.e. that increased equality could only

be achieved at the expense of growth. In recent years, it has instead increasingly been asserted that income inequality may be damaging to economic growth. Increased focus has accordingly been placed on measures that can contribute both to reducing income inequality and improving conditions for growth.

This report analyses the causes of the increased income inequality and the ways in which they may impact the functioning of the economy. There are theoretical arguments indicating that increased income inequality can affect growth both positively and negatively. Put simply, these arguments can be divided into those that create incentives and those that limit opportunities. Income inequality that create incentives that encourage work, study, innovation and entrepreneurship, for example, are good for growth, whereas income inequality that limit individuals' opportunities to study or move, for example, may hinder economic growth.

Increased capital income an important explanation for growing income inequality

The increase in income inequality in Sweden since the mid-1990s is largely due to strong growth in income at the upper end of the income distribution, particularly at the very top. The rapid rate of growth of these top incomes is due in turn to increased capital incomes, which have increased more rapidly than other forms of income since the 1990s. Capital incomes are unevenly distributed, and a majority are received by households at the very upper end of the income distribution. Several factors have contributed to this rapid increase in capital incomes since the early 1990s. One important explanation is the sharp rise in prices of housing and financial assets over the past 20 years. This particularly applies to the price of tenant-owned flats and detached or semi-detached houses. Another explanation is the design of the tax system. For example, changes to the '3:12 rules' for taxing closely held companies have strengthened opportunities and incentives to convert income from employment into capital income.

Incomes at the lower end have lagged behind

Another explanation for the increase in income inequality is that incomes in the lower income brackets have grown more slowly than the median income. The weaker income growth at the lower end of the distribution relative to the upper end can be explained in part by the fact that the composition of income differs at different segments of the distribution. Transfers are more common among people with low incomes, earned incomes dominate the middle of the distribution, and capital incomes represent a majority of the total incomes at the upper end of the distribution. Transfers are usually linked to inflation or are set in fixed amounts. If wages grow faster than prices, the incomes for those deriving their income from transfers will deteriorate in relation to the working population. This trend has been further reinforced by a reduction in benefit levels in certain systems and the introduction of the earned income tax credit. All in all, this has tended to increase income inequality.

At the same time, the lagging behind of some transfers and the earned income tax credit have meant a strengthening of the financial incentives to work. This particularly applies to groups with a weak attachment to the labour market, for the majority of whom the incentives now appear to be strong. Strengthened incentives to work are considered to be one of several factors that have contributed to increased employment. This increased employment has in turn contributed to counteracting the increase in income inequality.

With regard to the level of transfer incomes, there is consequently a conflict of purposes. On the one hand, low benefit levels imply that it is more worthwhile to work. On the other hand, low benefit levels provide less protection against loss of income associated with undesirable events. Low levels of sickness or unemployment benefits may create problems for households to provide for themselves, in addition to undermining confidence in the universal social security system and reducing the adaptability of the economy.
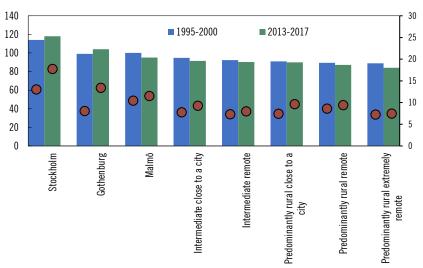
Greater regional inequality in income as well

The increase in capital incomes has resulted in increasing income inequality between regions as well. Capital incomes have increased

the most in the Gothenburg and Stockholm regions, which is primarily explained by current capital incomes (interest and share dividends) (see figure 2). Dividends from closely held companies account for a growing share of these incomes in the Gothenburg and Stockholm regions. Until 2006, these dividends increased at the same rate as the national average. Subsequently, they have increased much faster. Despite housing prices having increased much faster in the Stockholm region than in other parts of the country since 1995, the realised capital gains – largely consisting of gains from housing sales – have not increased faster in the Stockholm region than in the rest of the country.

Figure 2   Disposable income and the share of capital income

Average by region and time period in relation to the country.
Index, entire country = 100 and per cent (right axis)

Note: The bars show equivalised disposable income in relation to the country as a whole. The dots show capital income's share of equivalised disposable income. Equivalised disposable income corresponds to disposable income, taking household composition into account.
Sources: Statistics Sweden (Household Finances Survey [HEK] and Statistical Analysis Register [STAR]) and own calculations.

The equivalised disposable income is much higher in the Stockholm region than in the rest of the country. At the same time, housing

prices are also much higher, which can be expected to impact households' housing expenditure so that differences in the scope for consumption are smaller than the differences in equivalised disposable income. But the analysis in this report shows that this is not the case. Housing expenditure's share of equivalised disposable income is roughly the same in all regions, which means that the difference in equivalised disposable income between regions is largely the same before and after housing expenditures. This can primarily be explained by the fact that the rapid rise in prices in regions with high housing prices has also resulted in households' housing equity increasing faster in these regions. Another explanation is that households adapt their housing to price levels in different ways, such as living in smaller units or less attractive areas.

Rise in employment rate has helped keep income distribution more equal

Income from employment is the main form of income for most households. A weak attachment to the labour market is the single most important explanation for why some households have low incomes. Developments in the labour market are therefore of central importance to the development of income inequality. Structural transformation and technological developments since the 1990s have contributed to a polarisation of the labour market, i.e. a growing share of low- and high-wage jobs compared with average-wage jobs. This trend is often explained by digital transformation and automation leading to more cuts of middle-wage jobs than of low- and high-wage jobs. However, there are also other explanations for this polarisation, such as changing consumer demand patterns that have resulted in greater demand for both less advanced and more advanced services. Another possible explanation for the polarisation of jobs is that the supply of labour has changed. The change in labour supply brought about by immigration may have contributed to the job polarisation in Sweden between 2000 and 2013, and particularly to the increased share of low-wage jobs.
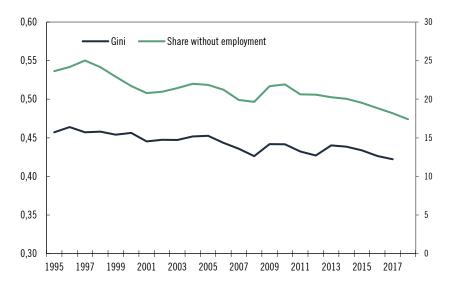
Sweden has one of the lowest levels of income inequality in the OECD. A contributing factor to this is likely that a large part of the labour market is covered by collective agreements and that trade unions have a major influence in Sweden. The relatively small

difference in education levels among the population is another explanation. In many other countries, the polarisation of the labour market has led to greater distribution of wages, and thus to increased income inequality. The trend is different in Sweden. Although the wage dispersion has also increased in Sweden, the effect of this on the dispersion of income from employment has been counteracted by both an increase in the employment rate and an increase in working hours for those who work the least. All in all, this has meant a reduction of the difference in income from employment (see figure 3).

Despite the increase in employment rate for large groups, it is still significantly lower for individuals without upper secondary education and foreign-born people, for example. This is considered to be mainly due to the fact that many people in these groups lack the skills in demand in the Swedish labour market. The lower employment rate in these groups shows that inequality, primarily in education, can impact opportunities in the labour market.

Figure 3   Distribution of income from employment and share without employment

Gini coefficient (left axis) and share of population without employment in per cent (right axis)

Note: Income from employment at individual level. Income from employment is the total of earned
income and self-employment income.
Sources: Statistics Sweden (STAR), labour force surveys and own calculations.

Greater differences in production conditions between regions

Production conditions and demographic trends differ between
regions. Gross regional product (GRP) per capita has increased
more in metropolitan regions than in other regions. The reason for
this is primarily that productivity has increased more in the
Gothenburg and Stockholm regions[1]. A possible reason for the
greater increase in productivity in metropolitan regions is 'agglom-
eration economies', i.e. that productivity increases more in
geographical areas in which companies and the labour force are
concentrated.

Despite this divergence in GRP per capita, the labour costs for
companies have not developed in a similar way. The relative labour
cost per employee is certainly higher in the metropolitan regions,
but the differences have not increased appreciably during the period.
As a result, the share of earned income has fallen in the Gothenburg
and Stockholm regions, while it has grown in other regions. In the
country as a whole, however, the share of earned income has
remained largely unchanged.

The digital transformation, which has been under way for some
time, is particularly noticeable in the Stockholm region. In 1996–
2013, the number of employees in occupations at risk of automation
declined in all regions. However, this decrease was most noticeable
in the metropolitan regions, whereas it was only marginal in rural
areas. The major decline in the metropolitan regions was driven
primarily by the manufacturing industry in the Stockholm region.
This indicates that the transition in the labour market resulting from
digital transformation and automation has progressed furthest and
proceeded fastest in the metropolitan regions. Accordingly, rural
regions are thought to have major growth potential, but are also at

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[1] The division into six region types used by the Swedish Agency for Growth Policy Analysis
(Growth Analysis) forms the basis of the regional analysis (see Growth Analysis 2011 and
2015). The division is based on population density in different municipalities and their
proximity to large densely built-up areas. It should be noted that the metropolitan regions in
this division are relatively large, geographically, and include small municipalities far from the
city after which the region is named. These municipalities are included based on the commuter
patterns to and from the municipalities.

greater risk of unemployment resulting from the digitally driven structural transformation. The importance of this structural transformation for the distribution of income from employment largely depends on how the transition to changed conditions plays out. The generally high employment rate in Sweden, compared with other countries, indicates that the transition has worked well. To ensure that a continued digitally driven structural transformation does not result in higher unemployment and greater income inequality when it reaches rural regions to a greater degree, the labour force in these regions must have good opportunities to adapt.

Up to 2035, the increasing differences in production conditions between regions are expected to continue to increase. This is based on the assumption that, similar to trends in recent decades, productivity will increase more in metropolitan regions than in other regions.

Income inequality expected to continue to increase

In a forward-looking perspective, income inequality is expected to continue to increase. The Inquiry presents four different scenarios of how income disparities may develop up to 2035.

In the baseline scenario, the Gini coefficient increases between 2017 and 2035, from 0.32 to 0.34, which is a smaller increase than in recent decades (see figure 4). The change corresponds to around one fifth of the increase between 1995 and 2017. The increased income inequality in the baseline scenario are due to the fact that capital incomes, which are concentrated at the upper end of the income distribution, are expected to increase faster than other incomes. However, the rate of growth of capital incomes is expected to be much slower than has been the case since the mid-1990s.
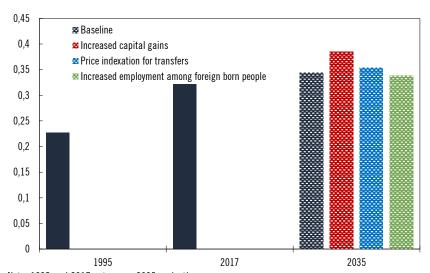
In the first alternative scenario, it is assumed that one part of capital incomes – capital gains – will follow the average trend of the past 20 years. The other part of capital incomes – interest and dividend incomes – will follow the trend in the baseline scenario. This will result in greater income inequality by 2035 than in the

baseline scenario, which illustrates the importance of capital gains for the development of income inequality in Sweden.

The second alternative scenario differs from the baseline scenario in terms of the assumption for transfer income trends. The baseline scenario assumes that transfers will increase at the same rate as income, which would require active political decisions. Such a development means that today's level of ambition for redistribution is maintained and leads to a greater rise in transfers than has been the case in recent decades. The second alternative scenario assumes instead that benefit levels in the transfer system will grow with inflation. This is more in line with the trend since the mid-1990s. Income inequality also increase in this alternative scenario more than in the baseline scenario, but not as much as in the first alternative scenario which includes higher growth of capital gains.

Figure 4   Development of income inequality in the different scenarios

Gini coefficient

Note: 1995 and 2017 outcomes, 2035 projection.
Source: Annex 2 on income distribution in 2035.

The third and final alternative scenario concerns employment among foreign-born people. From a historical perspective, migration to Sweden has been extensive over the past decade. The employment rate and incomes of newly arrived immigrants tend to be lower than

for those born in Sweden, even after a long time in the country. The final alternative scenario assumes that foreign-born people from countries with a low or medium Human Development Index (e.g. Syria, Eritrea, Somalia and Afghanistan) reach an employment rate that is 10 percentage points higher than in the baseline scenario by 2035. This leads to less income disparity by 2035 than in the baseline scenario. The difference is minor, however, which is due to the fact that the foreign-born people from these countries represent a relatively small group.

Income inequality increase in all scenarios. Nevertheless, this does not mean that increased income inequality is unavoidable. Economic policy impacts the growth of income in different parts of the income distribution, as well as employment trends in various parts of the population. The capital income trend is based partly on how the housing market develops and the design of taxation of capital incomes. How incomes develop at the lower end of the distribution depends largely on the rules of the transfer system, but also on employment trends. However, without the introduction of new measures, much indicates that income inequality will continue to grow up to 2035, although at a slower rate than has been the case in recent decades.

Equality of opportunity has not declined

An important dimension of economic equality is equality of opportunity. This form of equality can be considered to have been achieved, with regard to income, when an individual's income is determined only by their choices and efforts, rather than on circumstances beyond their control. Increased income inequality can impact equality of opportunity if these disparities in income limit access to, for example, well-functioning schools, higher education or specific career paths for children from poorer families. This may in turn imply that not everyone has the opportunity to reach their potential and may lead to an inefficient allocation of resources in the economy, thus reducing economic growth.

One factor that is of great importance for children's outcomes and that is beyond their control is their parents' income. The association between incomes of parents and their children, or *intergenerational income mobility*, is therefore a term closely related to equality of opportunity. The stronger the association between incomes of parents and their children, the less intergenerational mobility and the less equality of opportunity there is.

In comparisons between countries, and between regions within countries, there is a negative relationship between income inequality and intergenerational income mobility. Countries that have greater income inequality also have lower income mobility. This relationship, usually called the 'Great Gatsby curve', is illustrated in (see figure 5). However, less is known about whether the relationship is causal or whether it can be explained by other factors common to both income inequality and mobility. Essentially, one can imagine that parents invest time and money in their children's human capital (e.g. education) and that they invest more if their earnings are high. If parents with high incomes also spend more time and resources on their children, greater income inequality could result in reduced intergenerational mobility.
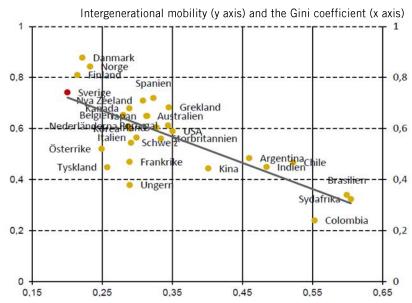
Figure 5   The Great Gatsby curve – the relationship between income inequality and intergenerational income mobility

Intergenerational mobility (y axis) and the Gini coefficient (x axis)

Note: The x axis shows the Gini coefficient during the mid-1980s. The y axis shows intergenerational income mobility calculated as 1 minus the intergenerational income elasticity (1-IGE).
Source: Swedish Fiscal Policy Council (2019).

Sweden's intergenerational income elasticity (IGE) is around 0.27. This means that if parental incomes were 10 per cent above the average, their children in turn have incomes that are 2.7 per cent above the average in the children's generation. In this way, IGE is a measure of *intergenerational persistence*. The higher the IGE, the lower the intergenerational mobility, and vice versa. The other Nordic countries have similar levels of mobility to Sweden. But in southern Europe, the United Kingdom and the United States, for example, intergenerational mobility is much lower.

One aim of publicly funded welfare services such as education, health and social care is to equalise life chances and give everyone the opportunity to achieve their potential. There is also much to suggest that this is an important explanation for the high level of mobility in the Nordic countries. However, to achieve a high level of social mobility, it is not sufficient to level out differences in the

circumstances in which children grow up and their educational opportunities. Research shows that the difference in inter-generational mobility between the Nordic countries, on the one hand, and the UK and United States on the other, in part arises in the labour market. The intergenerational relationship between children's and their parents' education does not differ much between the countries, but the return on education in the United States and the UK creates a stronger relationship between the incomes of children and their parents. This indicates that the lower return on higher education in Sweden may be an explanation for Sweden's higher level of intergenerational income mobility.

The Inquiry presents the trends in intergenerational mobility over time. The results show that for people born between 1955 and 1980, mobility has remained largely unchanged over the entire period. However, the overall pattern of unchanged mobility conceals both substantial differences between women and men, and a certain variation in mobility during the period (see figure 6). Women's mobility has decreased over time. This has taken place during a period in which women's position in the labour market has improved, which may seem paradoxical. However, this is likely due to the fact that women's incomes were an inferior indicator of their potential earning capacity early on in the period. When their income potential is reflected more clearly in actual incomes, it is also captured more clearly in the measure of intergenerational mobility that is used in this report.

On the other hand, mobility seems to have increased slightly among men born in 1970 or later. Income inequality decreased during the period, which may have contributed to the increase in mobility.

Viewed from an international perspective, Sweden has one of the highest levels of income mobility. This indicates a high level of equality of opportunity. As the analysis is based on individuals born between 1955 and 1980, these findings do not answer the question of how the increasing income inequality since the 1990s have affected the intergenerational mobility of young people today. One way to investigate whether the growing income inequality has affected the opportunities of young people today is to study trends in the impact of family background on pupils' academic achievement.
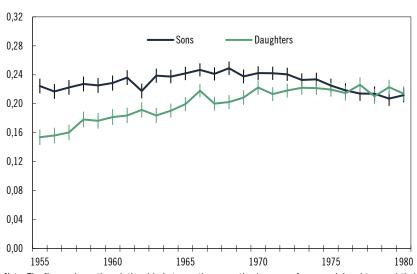
Figure 6   **Intergenerational persistence for sons and daughters**

Rank correlations

Note: The figure shows the relationship between the respective incomes of sons and daughters and their parents, calculated as an average of the father's and mother's incomes in terms of a rank correlation. Higher values on the y axis indicate lower intergenerational mobility, and vice versa. The vertical lines indicate 95 per cent confidence intervals. The standard errors are clustered on the mothers.
Source: Annex 5 on intergenerational mobility.

Family background continues to have an impact on academic achievement
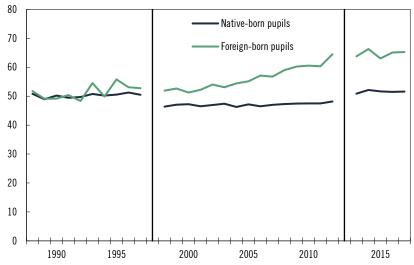
School is the foremost institution for promoting social mobility. The measurement of outcomes in compulsory school at an early age enables the analysis of *potential* mobility for people who grew up in the 1990s when income inequality grew. This is of particular interest in light of the negative relationship between income inequality and intergenerational mobility suggested by the Great Gatsby curve.

The importance of family background for academic achievement in both compulsory and upper secondary school has increased slightly since the end of the 1980s. In 1988, family background explained around 50 per cent of the variation in grades in year 9. The share had increased to 55 per cent by 2017. The increase primarily

took place after the mid-2000s. This trend has been driven by the fact that the impact of family background has increased for foreign-born pupils and that foreign-born people make up a growing share of the total number of students. The composition of the foreign-born pupils with respect to their country of origin and age on arrival has changed, which likely contributes to the greater role played by family background. In addition, more and more are arriving after the age for starting school, which is linked to poorer academic achievement. The impact of family background for native-born pupils has remained largely unchanged since the end of the 1980s (see figure 7). The growing income inequality in the 1990s are therefore not considered to have affected the impact of family background on academic achievement. Nor has the school system's compensatory capacity been reduced. Rather, the trend seems to be driven by a deterioration in conditions for school to perform its compensatory role, for example by a larger proportion of pupils arriving at late school age. However, migration, and thus the number of children arriving after the age for starting school, is expected to decline in coming years. This may mean that the school system's compensatory role will be easier and that the impact of family background on academic achievement for foreign-born pupils will decrease.

Figure 7   **Proportion of the variation in year 9 grades that may be explained by family background**

Per cent

Note: The figure shows sibling correlations in grades for core subjects in year 9, divided by country of birth. The analysis is limited to siblings born at most three years apart. The first vertical line indicates the introduction of the goal- and knowledge-related grading system in compulsory school, while the second line indicates the introduction of the current grading system.
Source: Annex 7 on equality in schools.

Access to good quality schools is essential to ensure that the school has an equalising effect on pupil's life chances. It appears there are differences in quality concerning the school's capacity to improve pupils' academic achievement, given pupil circumstances. Pupils from less advantageous circumstances tend to attend schools of lower quality, and schools in metropolitan areas tend to have a higher level of quality than schools in rural areas. This results in a reduction in the school's equalising effect and suggests that it should be possible to reduce the impact of family background on academic achievement. This could also potentially increase the intergenerational income mobility over time.

Diverging housing prices can limit equality of opportunity

In discussions on how increasing income inequality can affect equality of opportunity, there is often a particular focus on limited educational opportunities. In Sweden, however, post-secondary education is highly subsidised and the proportion of the population with higher levels of education is large in an international perspective. Another important factor for equality of opportunity is access to housing.

Long waiting times for rental housing and high prices of owner-occupied housing affect people's housing opportunities in growing regions. For those who have owned a home in these regions for a long time, increased housing prices have not primarily meant increased housing expenditure, but rather that the value of their homes has risen alongside their own home equity. This increases their purchasing power in the housing market in relation to those who have not had such value increases. Major differences in housing wealth and credit restrictions, combined with increasing regional differences in housing prices, can prevent groups with lower incomes or without financial assets from moving for work or study.

Barriers to entering the housing market also result in family background playing a greater role in young people's opportunity of having a home of their own. Research indicates that the likelihood of becoming a homeowner is positively associated with parents owning their home, and that the importance of family background and parental wealth has increased.

… and inhibit structural transformation

Labour force mobility and flexibility are important factors for a well-functioning labour market. Structural transformation not only requires upskilling and reskilling the labour force in response to changing demands, but also that people are able to move to where the jobs are. International research suggests that high housing prices and limited housing supply in metropolitan areas may impede mobility from other regions. This may curb productivity growth in the major cities and slow the trend towards declining income disparities between regions. By extension, this will dampen economic growth in the country as a whole.

Greater challenge to equalise life chances through welfare services

There are strong indications that income inequality will continue to increase both in the population at large and between regions. It is difficult to determine how this will affect trends in inequality in living conditions in a broader perspective. Other factors are also important for living conditions in general. These include access to welfare services and other public services, such as publicly financed education and quality health care.

It is well known that Sweden's ageing population poses a challenge for the country's welfare model. In essence, it is good that people are living longer. But this also means that welfare expenditures, especially on care for older people and health care, is expected to rise sharply. All in all, demographic demand for municipal services is set to increase by about 18 per cent between 2018 and 2035, corresponding to an average increase of about 1 per cent per year. At unchanged local government tax rates, this means that government grants to the local government sector need to increase from 2.2 per cent to 3.8 per cent of GDP over this period.

To increase the scope of health, education and social care activities, with unchanged staffing ratios, more people will need to be employed in the sector. This means that almost half of the total increase in employment until 2035 needs to take place in local government-financed activities and that the proportion of the population employed in the sector needs to increase. Regarding the provision of welfare services, the challenge ahead is primarily expected to concern the recruitment of staff, rather than financing. As demographic trends vary across regions, certain regions will be affected more than others (see table 1).

Table 1 **Change in number of local government employees and in working-age population**

Change 2020–2035

	Local government employees		Population aged 20–69	
	Number	Per cent	Number	Per cent
Predominantly rural extremely remote	-200	-3.0	-6 600	-17.1
Predominantly rural remote	4 500	8.2	-12 400	-4.7
Predominantly rural close to a city	2 600	9.5	-1 700	-1.3
Intermediate remote	5 600	7.6	-1 1000	-3.1
Intermediate close to a city	57 400	12.7	61 900	2.7
Predominantly urban	108 900	17.7	340 900	10.1
Country	**178 800**	**14.5**	**371 100**	**5.8**

Note: Excludes employment in the business sector financed by local government.
Sources: Statistics Sweden and own calculations.

Although the calculations indicate staff shortages in all regions, they are expected to be greatest in the rural regions. Staff shortages may make it more difficult to provide quality welfare services throughout the country. In addition to creating inequality in living conditions, it may affect everyone's ability to develop. It may also reduce intergenerational mobility.