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**WHY IS THE SWEDISH UNEMPLOYMENT
RATE SO LOW?**

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I. Introduction ¹

Sweden has for many years been famous for its low unemployment. Since 1961, when the first labor force surveys were done, the record high unemployment rate has been 3.5 percent (in 1983) and the record low 1.2 percent (in 1965). The definition of unemployment used in these surveys comes very close to the one used in the U.S. surveys.

Today, another noteworthy characteristic of the Swedish unemployment record must be recognized, namely its stability. In most other European countries unemployment stayed at the high levels reached during the recession following the second oil price shock. Persistence of unemployment has become a major issue. The Swedish unemployment, however, responded to the cyclical upturn in labor demand which started in 1983 more or less according to previous relationships between unemployment and aggregate demand. In particular, the Beveridge curve – the relationship between unemployment and vacancies – has been remarkably stable in Sweden during a long period.

The low level and the stability of unemployment in Sweden is the theme of this paper. My aim is to provide detailed information about the nature of unemployment in Sweden which can serve as a background to an examination of various explanations of the Swedish experiences. Section II is devoted to the development of unemployment in Sweden according to different measures. Unemployment differentials by age, sex and educational level are also presented. Section III gives a picture of the "dynamics of unemployment": how people become unemployed, the behavior during unemployment, the duration of unemployment, and how people leave unemployment.

The facts presented in these sections form the background to Section IV where a set of possible explanations are examined. The active labor market policy is one obvious candidate for explaining Swedish unemployment. However, we will argue that this policy in the first place can affect unemployment duration whereas the extremely low incidence of unemployment in Sweden requires other explanations.

¹Useful comments from Assar Lindbeck, Anita Olofsson, and from seminar participants at the Institute for Social Research at the University of Stockholm are gratefully acknowledged.

The Swedish approach to temporary layoffs will be examined as well as the high employment stability in Sweden compared to many other countries.

II Unemployment in Sweden.

The most basic form of unemployment is open unemployment. Those who do not have a job, but search actively for one, belong to this category of unemployment. The most frequently used measure in Sweden is the one from the monthly labor force surveys. Until a change in the surveys in 1987, the following definition was used:

A person is counted as unemployed during the week if he has not worked any hour during the reference week of the survey or has not been mainly² studying during the week and either

- i) has been searching for a job or has been awaiting the result of some measure which has been taken during the last 60 days to get a job
- ii) has been awaiting reemployment in a job from which he has been temporarily laid off without pay
- iii) has been awaiting a new job which starts within 30 days
- iv) would have been searching for a job if he had not been temporarily sick

There are two slight differences between this definition and the one used in the U.S.. First, students who are looking for jobs are counted as unemployed in the U.S., but not in Sweden. Second, in the U.S. active search shall have been taken place during the last four weeks compared to 60 days in Sweden. These two differences counteract each other.

In 1987, a revision of the questionnaire used in the labor force surveys was made and the formulation of the questions defining various labor markets states were

²The interviewed persons themselves decide whether they are "mainly" searching for a job during the week. This means that job-searching students who want to work a couple of hours a week in general are not counted as unemployed. Those who consider themselves mainly as job searchers but study for full time shall not be considered unemployed either.

changed³. Two changes made the meaning of unemployment more strict. First, the limit 60 days during which active search must have taken place, was reduced to four weeks. Second, and more important, the interviewed person was required to answer "yes" on three explicit questions in order to be counted as unemployed:

- i) Would you have liked to have gainful employment that week?
- ii) Would you have been able to take work that week?
- iii) Have you looked for work and, if so, when was the most recent occasion?

The answer to the second part of the third question must be "within four weeks" in order to fulfill the unemployment criterion. In the older questionnaire the counterpart to these three questions was: "Were you searching for work last week?" Hence the new definition is more strict.

Figure 1 presents, among others, the development of open unemployment from the labor force surveys for the period 1963–1988. The development between 1963 and 1986 display the typical cyclical pattern with two marked peaks in 1972 and 1983. The record high level was 3.5 percent in 1983 and the record low was 1.2 percent in 1965. A slight upwards trend can be found in the series. The effect of the change in the definition of unemployment in 1986 can be seen clearly because in 1986 both the old and the new questionnaire was used. In 1986, open unemployment was 2.7 percent with the old definition, and 2.2 with the new more strict one.

Alternative sources of unemployment statistics provide other measures of open unemployment. The general impression from these alternative series is that they follow open unemployment from the labor force surveys quite closely. The administrative source of unemployment statistics from the count of job searchers at the employment offices display the same cyclical pattern as the series from the surveys during the period 1978 to 1988. The level of unemployment is higher in the employment offices count, but the reason for that is that unemployed who are "subject to investigation" ("sökandekategori 2"), and hence unable to take on work immediately, are included.

³For 1986, data exist for both the old and the new questionnaires.

Another source of unemployment statistics comes from retrospective questions about the previous calendar year which are asked in February each year in conjunction with the labor force survey that month. (In the U.S., similar questions are asked in March each year.) Figure 1 shows that this series follows open unemployment from the regular labor force surveys quite well. The only discrepancy is during the 1971–1973 recession when the retrospective survey gave about half a percentage higher figures. Akerlof and Yellen (1985) have argued that retrospectively asked unemployment questions provide more reliable measures of social hardship from unemployment. If that interpretation is correct, the regular survey data slightly underestimated the unemployment problem during the recession in the early 1970s.

Finally, the figure presents a series of unemployed members of the unemployment insurance funds. Between 1963 and 1973 this series was strongly positively correlated with open unemployment from the labor force surveys even though at a slightly lower level. Further, this series does not display any trend during the whole post world war period (from 1946). Therefore it seems safe to conclude that open unemployment in Sweden has remained quite stable during the whole post world war period.

The Beveridge curve, i.e. the relationship between unemployment and vacancies, is a classical means of distinguishing between cyclical and structural variations in unemployment. The vacancy rate is then regarded as an indicator of aggregate demand. The Swedish Beveridge curve, using open unemployment data from the labor force surveys and vacancy data from the employment offices⁴, has been remarkably stable over the last 25 years (see Figure 2). Most observations lie rather closely along a negatively sloped curve. Hence, the variations in unemployment during this period can mainly be attributed to variations in aggregate demand rather than to structural changes.

⁴In practice there are many problems involved in measuring vacancies. The Swedish data, which come from vacancies reported to the employment offices, are affected by the administrative routines at the offices. However, the unadjusted series of the vacancy rate (vacancies in relation to labor force) follows alternative measures of aggregate demand (like survey information about bottlenecks and unfilled orders) very closely.

Hidden and partial unemployment

In addition to open unemployment, there is "hidden" and "partial" unemployment. As hidden unemployed are counted those who do not have a job and want to have one, but do not search actively. Another concept used for this type of unemployment is discouraged workers. The exact questions used in the labor force survey to define hidden unemployment have been changed a couple of times. Until 1975 the question was: "Would you have been searching for a job last week if you had thought that you could have found one in the area?" In 1976, this question was replaced by two, namely: "Would you have liked to have had work last week?" and "Could you have taken on work last week, or could you not possibly have done so?" Basically the same questions (see above) are used in the new questionnaire from 1987 onwards, but the size of hidden unemployment was affected by the change in the questions defining open unemployment.

The development of hidden unemployment is shown in Figure 3. The period from 1964 to 1976 is dominated by a trend wise decline. This pattern is hardly surprising because women have been in majority in this category of unemployment and female employment rose drastically during this period. From 1976 to 1986 a cyclical pattern following open unemployment but with smaller fluctuations can be found. The increase from 1986 to 1987 probably reflects the change in definition of open unemployment; some who previously would have been counted as open unemployed became now counted as hidden unemployed.

Partial unemployment means involuntary part-time work. Until 1986, those who were working part-time (less than 35 hours during the week) but had answered that they were able to work more and wanted to work more, were counted as partially unemployed. This definition was also changed in the revision of the labor force surveys in 1987. All who work less than or equal to 40 hours are asked whether they want to work more hours. Those who answer "yes" and state labor market reasons for not already working more than they actually do, are counted as partially unemployed. This change in the definition did of course shift the size of partial unemployment upwards. As seen in Figure 2, partial unemployment followed open unemployment quite closely until 1986 but almost doubled in 1987 when the new definition was introduced.

Taken together, open, hidden, and partial unemployment have varied between around four and eight percent of the labor force during the last 25 years. No strong trend can be found in the series for this total measure of unemployment.

Unemployment by groups

Unemployment in Sweden has in general been above average for

- (i) women
- (ii) young people
- (iii) lowly educated people
- (iv) people in certain industries, like construction
- (v) people in some regions

The first point is illustrated in Figure 4. Taking hidden and partial unemployment into account makes the male–female differential even larger (see Björklund (1984)). However, the figure also reveals that the curves have narrowed over time, and that also holds if hidden and partial unemployment is taken into account.

In many countries the unemployment differentials by age follow a "U–pattern", with relatively high rates for youths, low rates for prime–aged people, and again relatively high rates among elderly people. Sweden is no exception, even though unemployment among elderly people is not as high as among young (see Figure 5). One can also see a trend towards higher unemployment for teenagers from 1963 to 1983, and for 20–24 years old over the whole period. The marked decline in teenage unemployment from 1983 to 1984 is due to the introduction of new labor market policy measures (see e.g. Jonzon and Wise (1989)) The quantitatively most important of these measures, "youth teams", was a job guarantee for 18 and 19 years old teenagers.

The marked differentials among educational groups are shown in Figure 6. These differentials have been quite stable over time and illustrate a more general characteristic about unemployment: that unemployment disproportionately hits

low-income groups.⁵

Relationship to labor market policy

In order to understand the peculiarities of Swedish unemployment, its relationship to labor market policy must be taken into account. To a large extent the policies are targeted to the unemployed. Broadly speaking, there are two types of policies.⁶ The first set of policies focus on improved matching between unemployed and vacancies. An ambitious nation-wide system of public employment exchange offices is the most important instrument for matching. It is compulsory for employers to notify their vacancies at the employment offices and recipients of unemployment compensation (see below) must search via the offices. Private employment exchange firms are not allowed.

In their work to improve the matching, the offices can cover the costs for unemployed who have to travel to search for jobs. And if accepting a job at another place, the unemployed person is eligible to mobility grants.

The employment offices also have the task to implement the second type of policies, namely jobs and labor market training to take people out of unemployment. Temporary "relief" jobs, typically lasting six months, have been one of the most important programs. The size of the program as a percentage of the labor force has varied between .4 and 1.3 percent⁷ (see Figure 7). The cyclical sensitivity is very marked. No doubt, temporary relief works have been an important "fine-tuning" instrument in Swedish economic policy.

Labor market training is another important instrument. About one percent of the labor force have participated during the last decades. There is no marked cyclical

⁵More detailed information about the low-income profile of unemployment can be found in Björklund (1990a, forthcoming).

⁶For more detailed information about Swedish labor market policy, see Johannesson (1988).

⁷The cyclical flexibility is stronger than the table reveals. First the yearly averages hide some of the flexibility and, second, the program is very small during the summers.

pattern for training, though.

During the eighties, new policy instruments have been introduced to reduce unemployment among teenagers. Politically, these policy initiatives were a response to a long– term growth of teenage unemployment. Furthermore, many teenagers were employed only by means of temporary relief jobs. The new policies replaced the temporary relief jobs for teenagers.

In addition to these three measures which were presented in Figure 7, there are other quantitatively significant measures in Swedish labor market policy. Sheltered and subsidized employment for handicapped people are provided for almost two percent of the labor force. However, there are counterparts to these policies in other countries too, and the policies are not central to an understanding of the peculiarities of the Swedish unemployment. At times, various types of wage subsidies have been used. During the recession 1977/78, subsidies to firms which undertook in–plant training instead of laying off personnel were quantitatively quite important. In particular, the lay–off rate during that recession was reduced. However, for an assessment of the long–term development of Swedish unemployment, the three measures presented in Figure 7 are the most important one's.

III The Dynamics of Unemployment

Both causal and welfare–oriented analyses of unemployment are helped by information about the "dynamics of unemployment", i.e. information about how people become unemployed, how long people remain unemployed, the behavior during unemployment and how people leave unemployment. Such an analytical approach was proposed by many authors in the famous volume about the micro foundations of unemployment and inflation theory edited by Edmond Phelps (Phelps (1970)). Today, almost twenty years later, more detailed empirical data about the nature of unemployment dynamics than Phelps and his colleagues had at their disposal are available in many countries.

Inflow times duration

A first natural look at unemployment dynamics is the now familiar break-down of the stock of unemployment into the two components inflow of spells per period and the average duration of spells:

stock = inflow times duration

The identity holds formally under stable (stationary) conditions, but has proven to be reliable to use on yearly data. The decomposition of the stock of unemployment is motivated by the view that causes of becoming unemployed (the inflow) can be quite different from the causes of remaining unemployed (the duration). If, for example, the level of unemployment in one country compared to another, can be attributed to the duration component, causal explanations which focus on the prospects and the incentives of those who are unemployed should be looked for. If an increase in unemployment can be attributed to the inflow component, one should look for the reasons why people become unemployed.

However, the duration component in the equation above, only describes one aspect of the duration of unemployment. More specifically, it is defined as the average completed duration of all spells of unemployment. A given average can be associated with high or low dispersion. Neither from a causal nor from a welfare-oriented perspective is it irrelevant whether all spells are equally long or whether there is dispersion. An alternative measure is very useful as a complement to the average completed duration of all spells. Consider those who are unemployed at a specific point in time (i.e. the stock). Define the average completed duration of the spells incurred by those who are currently unemployed.

An analogy with demography is useful for understanding the two duration concepts. The average completed duration of all spells is the counterpart to the expected life-time of all newly born persons. The average completed duration of current spells is the counterpart to the expected life-time of the current population.

If all spells are equally long, i.e. there is no dispersion in the spell lengths, the two measures will coincide. However, the higher the dispersion in the spell lengths, the

higher the latter measure will be.⁸ The intuition is quite easy: at a given moment in time, those who experience long spells are more likely to be unemployed. Hence, we present both measures in order to offer a more detailed picture of unemployment duration.

Figure 8 shows the unemployment rate, the rate of inflow of unemployment spells per week (as a percentage of the labor force), and the two measures of duration for the period 1965–1988⁹. It appears that the importance of the inflow and the duration components have changed over time. The rate of inflow of spells per week was close to .3 percent during the mid–sixties but has declined to around .15 during the eighties. Instead the average duration of all unemployment spells have increased; from around 6 weeks to around 13 weeks during the eighties. Hence, there are marked structural changes behind the relatively stable level of the unemployment rate. It is also clear from the figure that there is dispersion in the duration of unemployment spells. The average completed duration of current unemployment spells is more than twice as high as the average duration of all spells. On the other hand, the trend wise increase is common for both measures.

How people become unemployed

The traditional view of an unemployed worker is one who has lost his job because of a closure of a plant in an industry hit by a structural or a cyclical shock. When unemployed people in labor force surveys are asked why they became unemployed, the answers reveal, however, that other reasons are more frequent.

⁸More formally, the two measures are related in the following way:

$$M = D + \frac{\sigma^2}{D},$$

where M equals the average completed duration of current spells, D equals the average completed duration of all spells and σ is the variance around D. See Salant (1977).

⁹The measurement of inflow is based on a direct measure from the labor force surveys (see Björklund (1981)). The average completed duration of all spells is computed from the identity. The average completed duration of current spells is estimated as two times the average interrupted spell length from the labor force surveys.

Tables 1 and 2 show that only between 12 and 25 percent have reported "permanent lay-off" as the reason for becoming unemployed. To become permanently laid off in Sweden means to lose a job which was protected by the employment security legislation and which require a "just cause" to be terminated by the employer. A temporary lay-off, on the other hand, means that the job contract has not been broken and the unemployed person will be reemployed, in practice within a couple of weeks. This type of unemployment is not very common in Sweden which also can be seen in the tables.

A more important, and over time increasingly important, reason for becoming unemployed is that the previous job only was temporary and not protected by employment security legislation. Substitutes typify such jobs. It also appears from Table 2 that many of the young people who are unemployed report that the previous job had been completed, i.e. it was only a temporary job with fixed duration. This pattern illustrate that temporary jobs are common during the process of entering the labor force.

Quite many have become unemployed directly when they entered or reentered the labor force. Such unemployment account for around 25 percent of all unemployment and, not surprisingly, for an even higher fraction of youth and female unemployment.

Finally, there is an "others"- category, which account for some 15 to 25 percent of all unemployment. Those who voluntarily have quit their previous jobs belong to this group as well as those who state "pensioning", "bad health" and "moving with husband/spouse" as the reason for having become unemployed.

Compensated and Uncompensated Unemployment

Unemployment insurance is the most important form of compensation for unemployed. The Swedish UI-system is organized through a number of certified UI-funds with voluntary membership and close ties to the trade unions. In fact, for most purposes a UI-fund can be regarded as an integral part of a trade union. It is possible to be a member of a UI-fund without being a union member, but membership in the fund is compulsory for union members.

The UI-funds are subject to various government regulations. The government decides on a range of permissible benefit levels among which the funds can choose; the funds have typically preferred the maximum benefit level, but some dispersion in granted benefit levels across funds do exist. The funds' revenues are covered in part by membership fees and in part by government subsidies. The subsidies have increased substantially over time and account at present for more than 90 percent of the expenses.

UI compensation is paid 5 days per week, but there was, until 1988, a delay of one week before benefits were paid out. The eligibility requirements include a "membership requirement" stating that a claimant must have paid membership dues to the UI fund for at least 12 months prior to the claim. There is also a "work requirement", stating that the worker must have been employed for at least 5 months during the 12 months preceding the unemployment spell.

In order to receive unemployment compensation, the worker must be registered as a job seeker at the public employment office, and an offer of "suitable" work must be accepted. If a "suitable" offer is turned down, benefits can be denied for 4 weeks; further denials may occur if offers are repeatedly turned down. Manpower training programs may in some cases be regarded as "suitable" work, and the same holds for temporary jobs (relief work) provided by the Labor Market Board. The disqualification rules also apply to workers who are dismissed for failure to perform their jobs and those who quit into unemployment.

The maximum duration of unemployment pay has increased over time. The maximum benefit period for workers under the age of 55 was 30 weeks until 1974 and has been 60 weeks since 1974. Workers over 55 can, since 1974, receive benefits for 90 weeks. Before 1968 their maximum period was only 30 weeks; as of July 1, 1968 the benefit period was extended to 90 weeks for all unemployed over the age of 60, and for some unemployed over 55.¹⁰ New Rules for early retirement have implied additional extensions of the maximum benefit periods. From January 1974 those over age 60 who have received UI benefits (or "cash assistance" as described below) for 90 weeks have been entitled to early

¹⁰ The National Labor Market Board (AMS) could allow extended benefit periods if unemployment was caused by a firm closure or permanent reduction of personnel at a firm.

retirement, even in the absence of health problem. (More generous rules for early retirement were introduced for workers over age 63 as early as 1972).

Real benefits for qualified members of UI-funds have increased faster than real wages. This implies a trend increase in the replacement ratio, i.e., the ratio of net income when unemployed to net income when employed. Calculations by Björklund and Holmlund (1990, forthcoming) suggest that the replacement ratio for average blue-collar workers has increased from about 60 percent in the mid sixties to slightly above 70 percent twenty years later.

The UI eligibility requirements imply that a substantial number of unemployed persons do not receive "regular" unemployment pay. A complementary system, called cash benefits (kontant arbetsmarknadsstöd, KAS), was introduced in 1974. To qualify for KAS, a work or a schooling requirement must be fulfilled. The former requires 5 months of work within the last 12 months, and the latter requires 12 months of full time studies above the compulsory level or 5 months in labor market training. A special qualifying period of 3 months is required for those who have left school. KAS can be paid out for 30 weeks, but older workers can receive benefits for longer periods.

KAS-benefits have on average amounted to 30 percent of the UI-benefit levels during the period 1974–85. The rules regarding registration at employment offices and requirements to accept "suitable jobs" are basically the same for KAS recipients.

All of the conditions which must be satisfied in order to receive some form of unemployment compensation obviously imply that many unemployed do not qualify for benefits. It is therefore important to identify the coverage of each of the various forms of compensation.

Detailed information about the coverage can be obtained from the unemployment statistics produced by the employment exchange offices ("registered unemployment"). Even though there is a slight discrepancy between the registered unemployment and the more widely used unemployment data from the surveys conducted by Statistics Sweden, the two data sources reveal, as we saw above, the similar cyclical and structural pattern.

The data given in Table 3 show that, among all unemployed, 29–41 percent have not received any compensation at all during 1978–86. Even though there is a clear decline in the percentage without compensation, a substantial number of unemployed obviously lack economic compensation. Furthermore, it appears that 8–16 percent of the unemployed have received KAS and 45–63 percent have received unemployment insurance compensation.

The other parts of Table 3 give some breakdowns by sex, age groups and duration of unemployment. Unemployed women have been slightly less likely to receive unemployment compensation and more likely to receive KAS or lack compensation compared to men. The share of unemployed without compensation is falling with age. Similarly, KAS has been more frequent among the young. Finally, the short-term unemployed are more likely to lack compensation than the long-term unemployed.

The period before 1978 is not covered equally well in terms of compensated and uncompensated unemployment. However, the Labor Force Survey include a question to the unemployed about membership of a certified UI fund. Most of the members are probably receiving unemployment compensation. The exceptions would be mostly those who do not satisfy the membership and work requirements, those affected by the waiting period rule and those who have exhausted their benefits. Therefore a crude estimate of the coverage of this type of compensation can be obtained. The data are presented in Table 4. The proportion which are members – and hence probably receive compensation – has risen sharply during the last decades. During the mid-sixties, around 25 percent of the unemployed were members of certified funds. In 1985, the figure had increased to 63 percent. At the same time, 78 percent of all labor force participants were members of a fund.

Unfortunately, we do not know to what degree those who lack unemployment compensation receive public welfare payment. There is also lack of information about combined benefits (unemployment compensation and welfare payments).

In conclusion, it is clear that unemployment compensation in Sweden has become successively more generous since the mid-60s. There have been (i) increases in the length of the maximum benefit periods, and (ii) a market trend increase in UI

coverage, (iii) replacement ratios have shown an upward trend, and (iv) a new type of benefit (KAS) has been introduced. It would be rather surprising if all these changes have occurred without any impact on labor market behavior.

Behavior during unemployment

Important aspects of the behavior during unemployment are the intensity and the methods of search. The labor force surveys provide some information which comes from questions about search by (i) visiting employers, (ii) by answering advertisements, and (iii) by directly contacting employers. The information is presented in Table 5.

Even though crude, the average number of methods used can be considered a measure of the intensity of search. According to this measure, search intensity has increased among both members and non-members of UI-funds. In light of the development towards more generous unemployment compensation documented above, this might seem contradictory; standard search theory predicts lower search intensity as a response to higher unemployment compensation. However, receipt of unemployment compensation requires regular visits at the employment offices and therefore the extended coverage of unemployment compensation might have caused the rising figures for search intensity displayed in the table. In particular, the introduction of KAS had the deliberate purpose to stimulate better contacts between unemployed job searchers and the employment office. It also appears from the table that the percentage of unemployed non-members who used the employment office has increased markedly from 52 percent in 1963–1966 to 85 percent in 1983–86.

How people leave unemployment

Far from all unemployed leave the state of unemployment by getting an "ordinary" job in the "open" labor market. According to the information from the employment offices about reasons for leaving unemployment (see Table 6), there are three about equally important routes out of unemployment. The "other" category in the table mainly consists of people who leave the labor force by going

to household work, pensioning or education. Of all the exits from "unemployment ready for immediate placement", 16–18 percent belong to this "other" category. It is also likely that labor force withdrawals are common among those with whom contact was discontinued. In all, perhaps 20–25 percent of those who leave unemployment have withdrawn from the labor force.¹¹

Another quantitatively important exit is placement in labor market programs, the most important of which are temporary relief works and labor market training. In 1984, when cyclical unemployment was still quite high, a higher fraction of those who left unemployment went to labor market programs than to ordinary jobs.¹² When the economy improved and unemployment declined between 1984 and 1988, outflow to ordinary jobs increased and outflow to the programs declined. Still, the overall impression from the table is the important role played by the labor market programs as a determinant of exits from unemployment in Sweden.

If labor force withdrawals, placement in labor market programs, and in ordinary jobs are three important routes out of unemployment, there is one very unimportant route, namely going back to the previous employer. Only a few percent have left unemployment in this way. As we will see above, those figures are extremely low compared with countries like Denmark and the U.S.

IV. Explanations

Before going into a discussion of possible explanations of the Swedish unemployment record, it is time to sum up the most important findings in sections II and III above:

(i) Open unemployment, as measured by the search criterion used in the labor force surveys, has been rather stable over time. It has varied between 1.2 and 3.5

¹¹ These figures are in conformity with those reported by Heikensten (1984), who used the rotating sampling scheme in the labor force surveys to analyze quarterly transition rates between labor force states.

¹² Note though that ordinary jobs here include both permanent and temporary jobs (but not temporary relief works which are part of the labor market policy package).

percent of the labor force during the 1963–1988 period. Alternative measures of open unemployment suggest that the unemployment have been at about the same level during whole period after the second world war. The measure of unemployment in the labor force surveys is comparable with the one used in the U.S., where unemployment has been in the range 3.5 to 11.0 percent during the last 25 years.

(ii) These conclusions hold even when hidden and partial unemployment is taken into account. The level of total unemployment has been stable in Sweden and the comparison with the U.S. is not changed.

(iii) On the other hand, the size of the most important labor market policy programs – temporary relief jobs, labor market training and special measures for youth – has increased over time. Adding these programs to open unemployment would give an outwards shift in the Beveridge curve. However, still Sweden's unemployment is markedly lower than in the U.S..

(iv) Behind the relatively stable Beveridge curve, some structural changes have taken place. Youth unemployment has increased over time and new labor market programs have been needed to prevent it from rising even further.

(v) Unemployment duration has increased but has been counteracted by a trend wise decline in the inflow of spells, i.e. the probability of becoming unemployed has gone down.

(vi) The importance of the inflow and the duration components of unemployment must be put in an international perspective to be meaningful. In comparison with Britain and many other European countries it is the duration component which is relatively low in Sweden. On the other hand, the Swedish record as far unemployment duration is concerned, is not very impressive compared to the U.S. and Denmark. In spite of higher unemployment, the duration component is lower in the U.S. (see Johnson and Layard (1986) for data). Instead, the inflow component is much higher. In 1978, for example, when unemployment was 6.0 percent in the U.S. and 2.2 percent in Sweden, the probability of becoming unemployed during a week for labor force participants was about .2 percent in Sweden and 1.0 percent in the U.S.. The average completed duration of

unemployment spells was 6.5 weeks in the U.S. but 12 weeks in Sweden. The average completed duration of current spells was 32 weeks in Sweden and 23 weeks in the U.S..

A comparison with Denmark reveal similar patterns (see Pedersen and Westergård–Nielsen (1987). In spite of much higher unemployment, the duration component is much lower in Denmark than in Sweden. Instead the inflow component is about ten times higher.

(vii) The importance of unemployment by different reasons for becoming unemployed must also be considered in an international perspective. Again, because of data availability it is easy to compare with the U.S. (for data see Johnson and Layard (1986)). It appears that Sweden is superior both with respect to entrance/reentrance unemployment and with respect to layoff unemployment. In one respect the Swedish superiority is really drastic, namely when it comes to temporary layoff unemployment. In Sweden only a few percent of all unemployed can be considered temporarily laid off, i.e. they will go back to their previous employer. The Swedish temporary layoff unemployment rate is around .15 percent. The information presented by Feldstein (1975) suggest that the counterpart in the U.S. is probably at least ten times higher, say 1.5 to 2.0 percent. Similarly, Jensen and Westergård–Nielsen (1989) report that 15–20 percent of all Danish unemployment is temporary layoff unemployment. Considering that the Danish unemployment rate is around ten percent, the temporary layoff unemployment rate is of the same magnitude as in the U.S., i.e. ten times higher than in Sweden.

Labor market policy

The first natural candidate to explain the relatively favorable unemployment record in Sweden is, of course, the labor market policy. By mechanically adding the 1.5 – 3.0 percent of the labor force who participate in training, temporary relief jobs and programs for youth, the rate of unemployment in Sweden would still be quite low, say 3.0 – 6.0 percent. Such a mechanical approach rely on the assumption that all those who participate in the programs would have been unemployed if the policy had not been there. No doubt, this is a strong

assumption.

A more appropriate approach to assessing the importance of the labor market policy for unemployment is to consider that the policies are (mainly) targeted to the unemployed and therefore in the first place affects the duration of unemployment spells. Remember that 22–35 percent of those who left the state of unemployment went to a policy program. In this perspective, is the Swedish record on unemployment duration impressive? Not necessarily. Note that unemployment duration is lower in the U.S. without these policies than in Sweden.

In another perspective, one can still argue that unemployment duration in Sweden is rather short. Unemployment compensation is more generous than in the U.S.; the coverage is higher, the replacement ratios are higher and the maximum duration of benefits is longer. In addition, the generosity of the Swedish compensation system has in these respects increased during the last 25 years.

The labor market policies, including the matching-oriented measures provided by the employment exchange offices, might have been needed to counteract the effects of an increasingly generous compensation system. This reasoning relies on the prediction from standard search theory, that unemployment benefits tend to prolong the duration of search (if the effects are not counteracted by labor market policies). We note, though, that this prediction has been challenged in recent IUI-research (see Axell and Albrecht (1984)).

Another issue is whether the active labor market policy has contributed to the relative stability of the Swedish Beveridge curve. In particular, the diverging developments in Sweden and most other European countries during the the 1980s makes it tempting to formulate such an hypothesis. As other Europe, Sweden suffered from a severe recession in 1981–83 and unemployment reached the, by Swedish standards, very high level 3.5 percent in 1983. However, massive labor market policies were used to keep open unemployment down. In the recovery from 1984 onwards, unemployment responded to the rising aggregate demand more or less as expected according to the Beveridge curve. No persistence of unemployment was found in Sweden.

A very reasonable hypothesis is that the active measures like training and temporary jobs prevented that many people became long-term unemployed and thereby also prevented the deleterious consequences which can be expected from long-term unemployment, like depreciation of human capital and work habits. In that way the people employed by means of labor market policy measures were reemployable during the recovery.

Even though there is a lot of common sense in this hypothesis, it does not receive support by recent research based on micro data. The hypothesis relies on two structural relations. First, that the probability of getting a job declines during the spell of unemployment, and , second, that participation in programs like training and temporary jobs improves the chances of reemployment compared to the alternative to be unemployed.

The research on the first structural relation (surveyed in Björklund (1990a, forthcoming)) suggest that the reemployment probability is a positive function of unemployment duration. Further, four studies based on different data suggest that the subsequent wage is adversely affected by unemployment duration. Taken together, these studies suggest that unemployed job searchers reduce their reservation wages as time elapses and the reemployment probability increases. Therefore, the first structural relation, which the hypothesis is based on, does not receive support by empirical studies.

The second structural relation does not receive support either. The few empirical attempts to study empirically whether participation in programs raises the reemployment probability compared to being unemployed, have not been able to reject the null hypothesis that program participation is equivalent to being unemployed. The studies are surveyed in Björklund (1990b, forthcoming).

To conclude, the available research does not support the hypothesis that Swedish labor market policy explains the diverging performances by the Swedish and other European labor markets during the 1980s.

Wage structure and search incentives

In an influential paper, Summers (1986) has argued that the American wage structure creates incentives for prolonged job search. He argues that there are large wage differentials which cannot be explained by a competitive model and which create incentives to search for long periods. The argument is based on the prediction from standard search theory, that the dispersion of wages tend to raise the reservation wage and extend the duration of unemployment. In particular, large and persistent inter–industry wage differentials which cannot be explained by differences in labor quality and working conditions, have been found for the U.S. (see Krueger and Summers (1988)). Recent research has also found a large firm–size effect on wages. Both findings are explained within the efficiency wage framework: that monitoring costs creates incentives for employers to raise their wages above the market clearing level. Such wage differentials are incompatible with the standard pure competition model of the labor market.

Paradoxically, similar studies on Swedish data has shown that the corresponding wage differentials are much smaller in the Swedish labor market with its more centralized wage–setting. Edin and Zetterberg (1989) presents such results for inter–industry wage differentials and leGrand (1989) for firm–size wage differentials. The results are paradoxical because the wage structure in Sweden with its relatively centralized wage bargaining comes closer to the predictions of the pure competition model than the wage structure in the U.S. with its relatively decentralized wage bargaining.

The theoretical argument by Summers, and the available empirical evidence from Swedish research would than suggest that these mechanisms creating long–term unemployment are lower in Sweden.

Employment stability

Our empirical data revealed, however, that is is the inflow component of unemployment which is remarkably low in Sweden, i.e. the probability of becoming unemployed is low. It is unlikely that the labor market policy or the wage structure can be important determinants of the inflow component of unemployment. A satisfactory explanation of the Swedish unemployment record, therefore require quite different arguments.

One approach is to study employment stability and its determinants. leGrand (1989) has shown that available data – which unfortunately suffer from problems of comparability – suggest that the duration of employment spells is relatively long in Sweden,

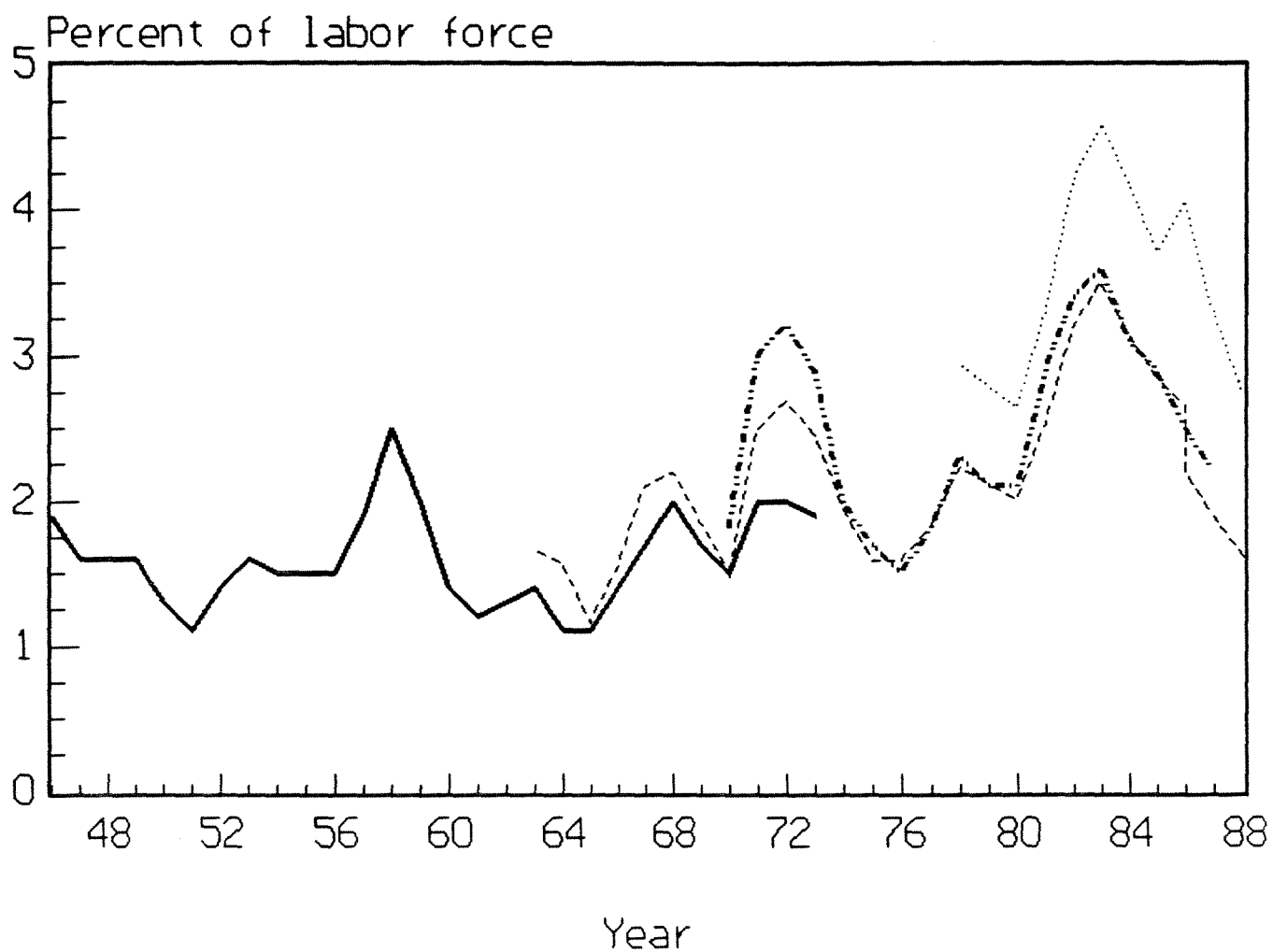
We have also seen that temporary layoffs are less frequent in Sweden than in Denmark and in the U.S. The Swedish approach to temporary layoffs ("permitteringar") is quite different from the one's in Denmark and in the U.S. (see Wadensjö (1987)). In Sweden it is possible to use publicly financed unemployment compensation only during a couple of weeks for temporary layoffs. In Denmark and the U.S., on the other hand, there are not such limits. Implicit contracts which rely on frequent temporary layoffs are therefore much less tempting to agree on in Sweden. These institutional differences help to explain some, but not all, of the differences in unemployment and in the frequency of unemployment spells between the countries.

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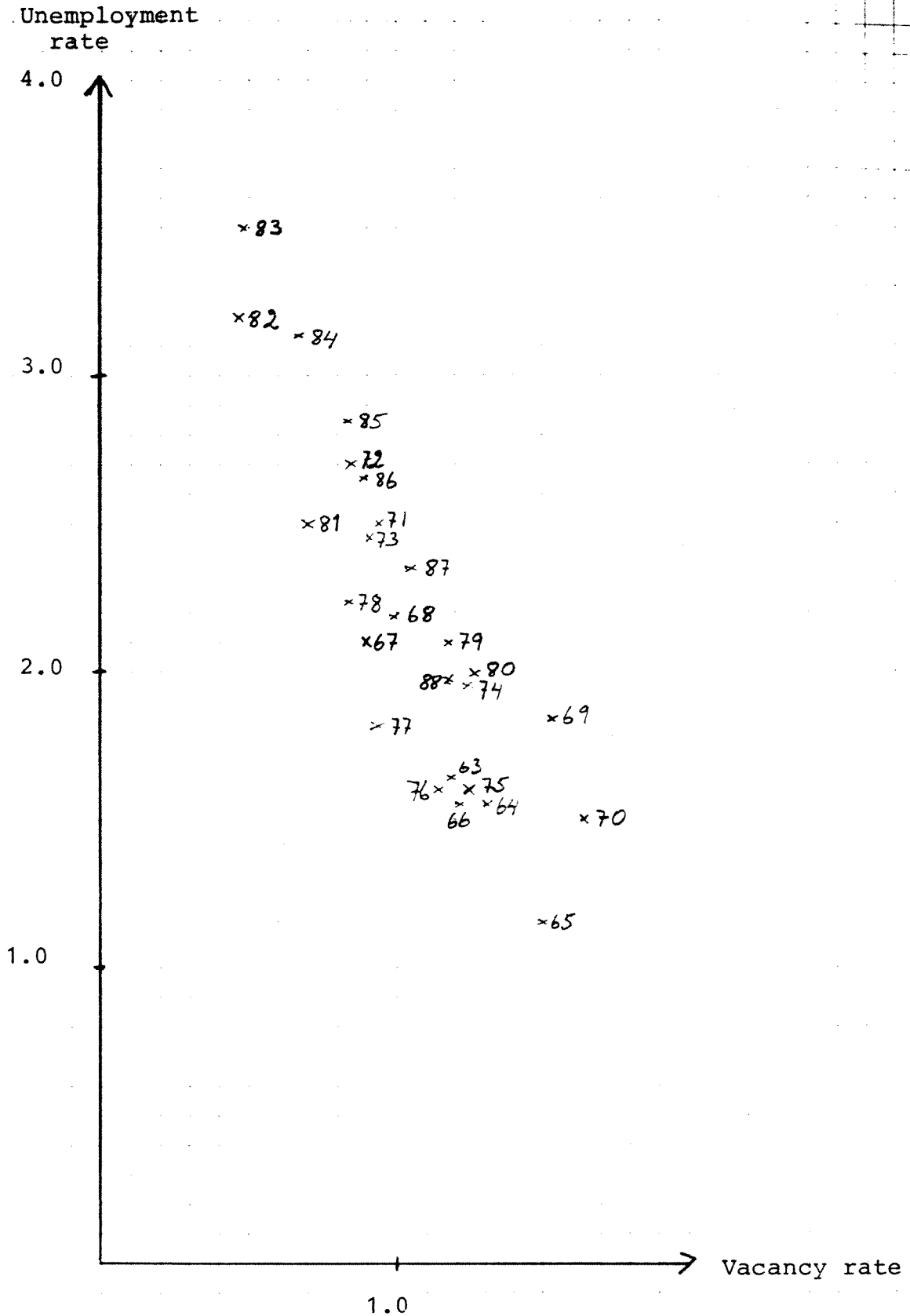
Figure 1. Four measures of open unemployment.



- Registered unemployment among members of unemployment ins. funds
- - - - Open unemployment from regular labor force surveys.
- Unemployed job searchers at employment offices.
- Open unemployment from retrospective surveys

Source: see Appendix

Figure 2. The Beveridge Curve

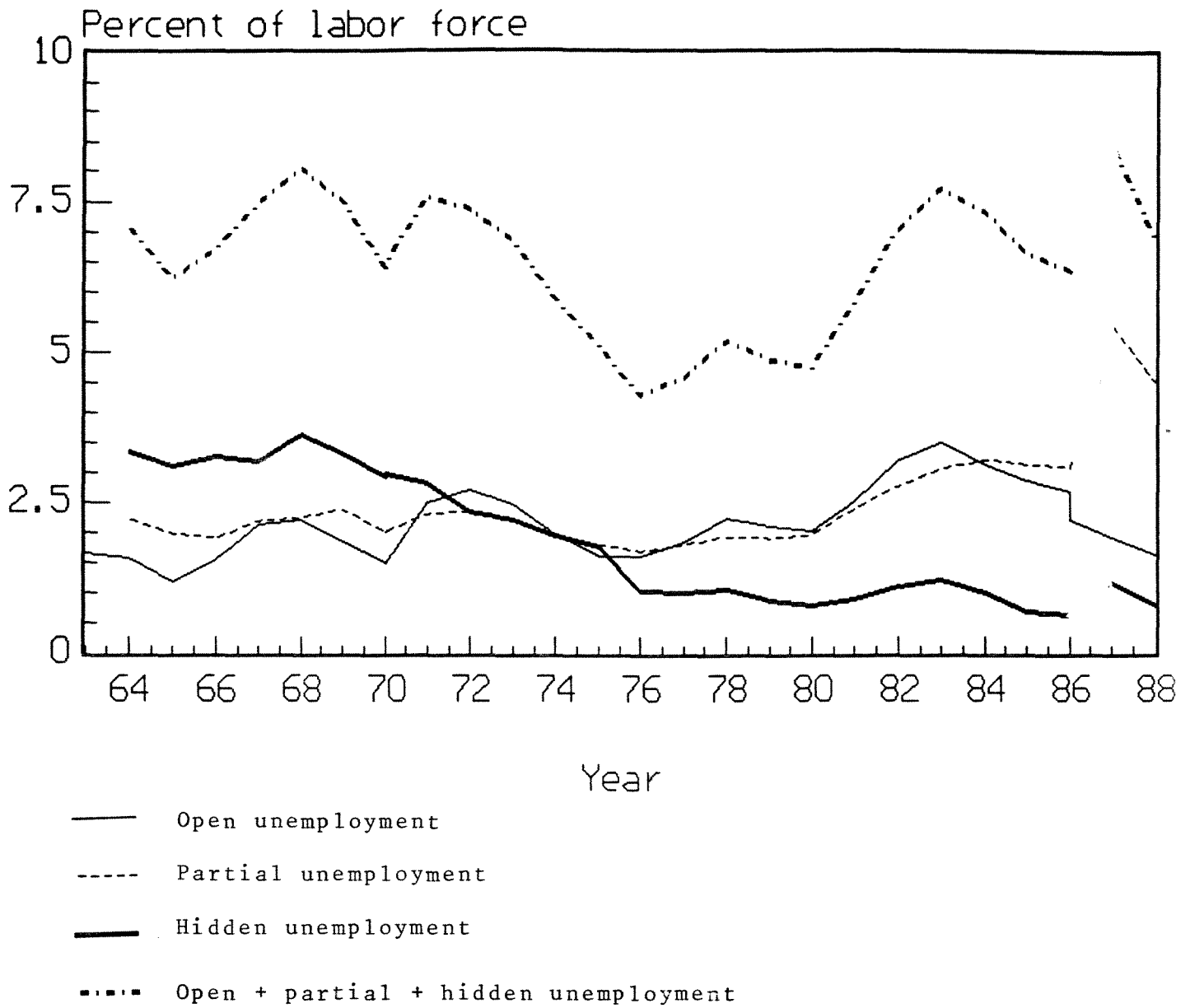


Sources: see Appendix

Note: unemployment for 1987 and 1988 have been adjusted for the change in definition

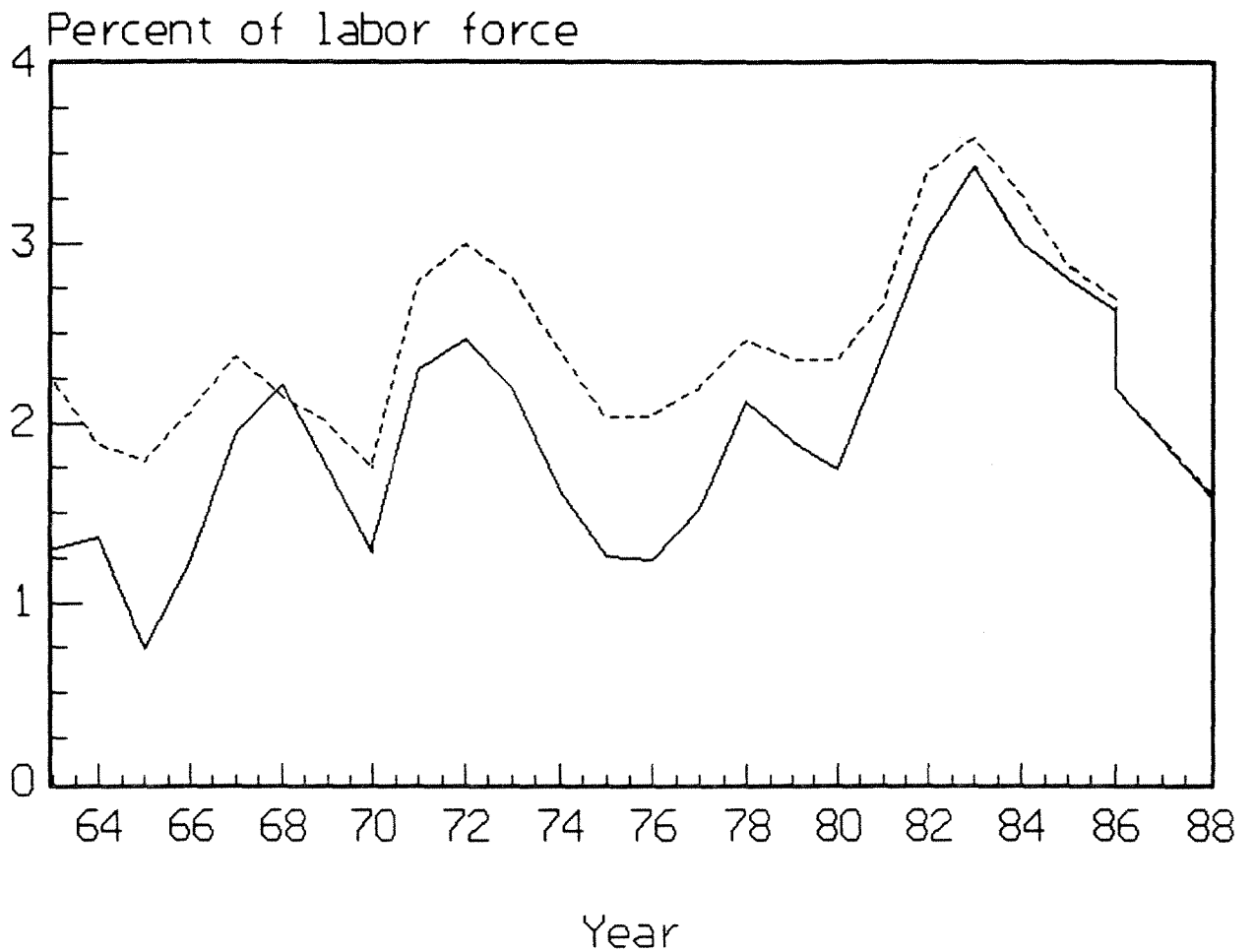
Figure 3

Different kinds of unemployment.



Source: Labor force surveys, Statistics Sweden.

Figure 4
Unemployment for men and women.

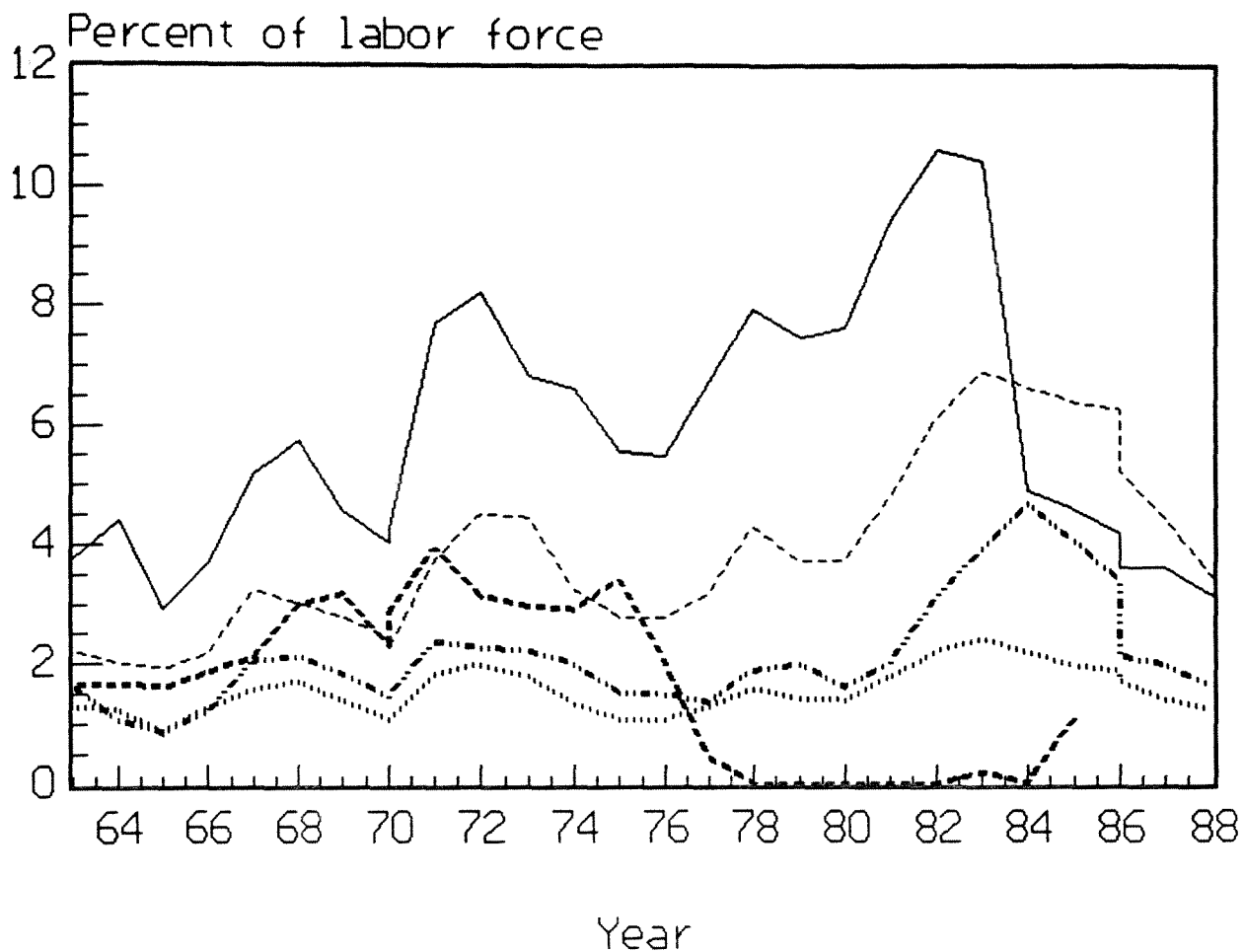


----- Women 16-64

— Men 16-64

Source: Labor Force Surveys. Statistics Sweden .

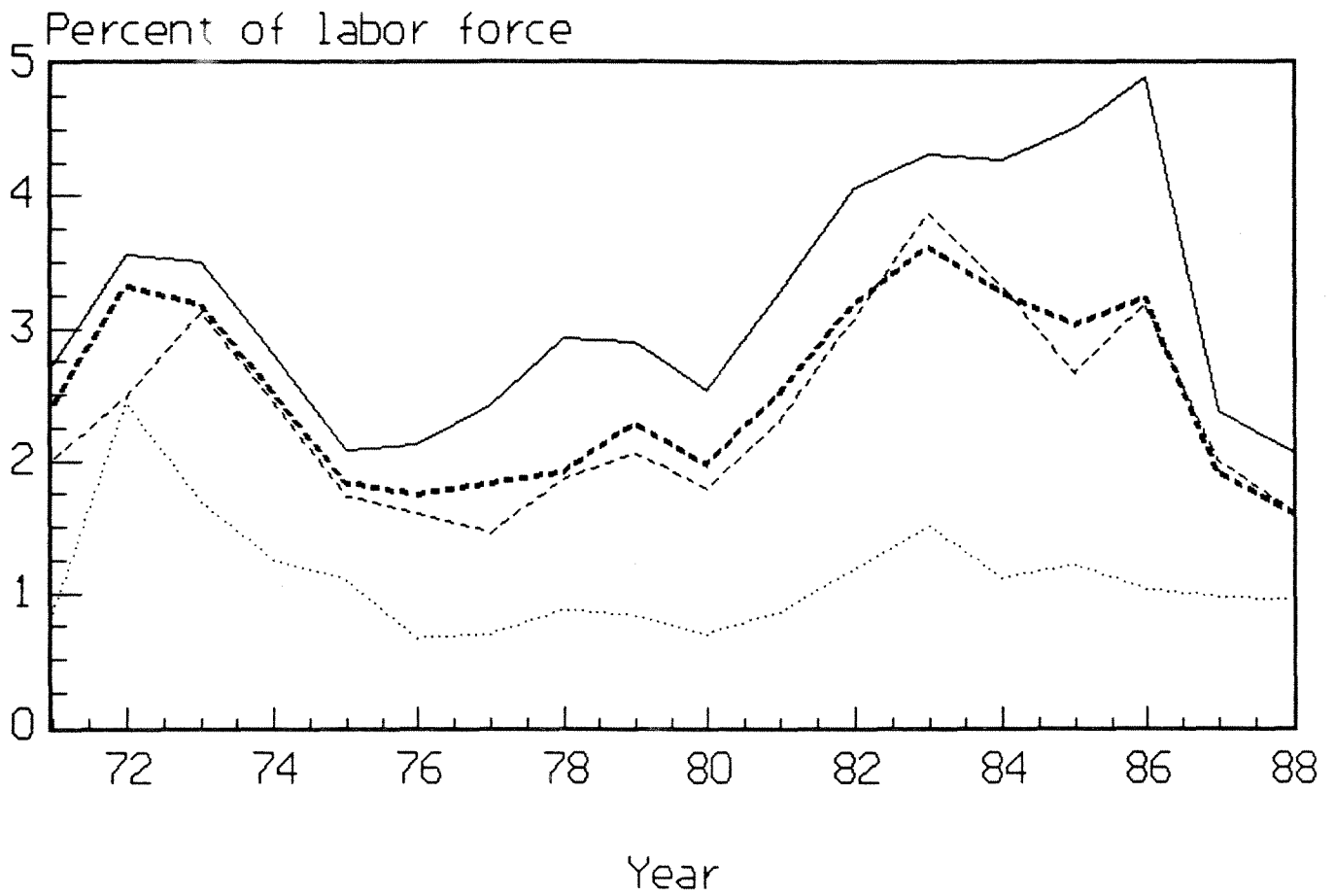
Figure 5
Unemployment for different age groups.



- Age 65-74
- Age 55-64
- Age 25-54
- Age 20-24
- Age 16-19

Source: Labor Force Surveys, Statistics Sweden

Figure 6
 Unemployment according to educational
 background.



----- All groups

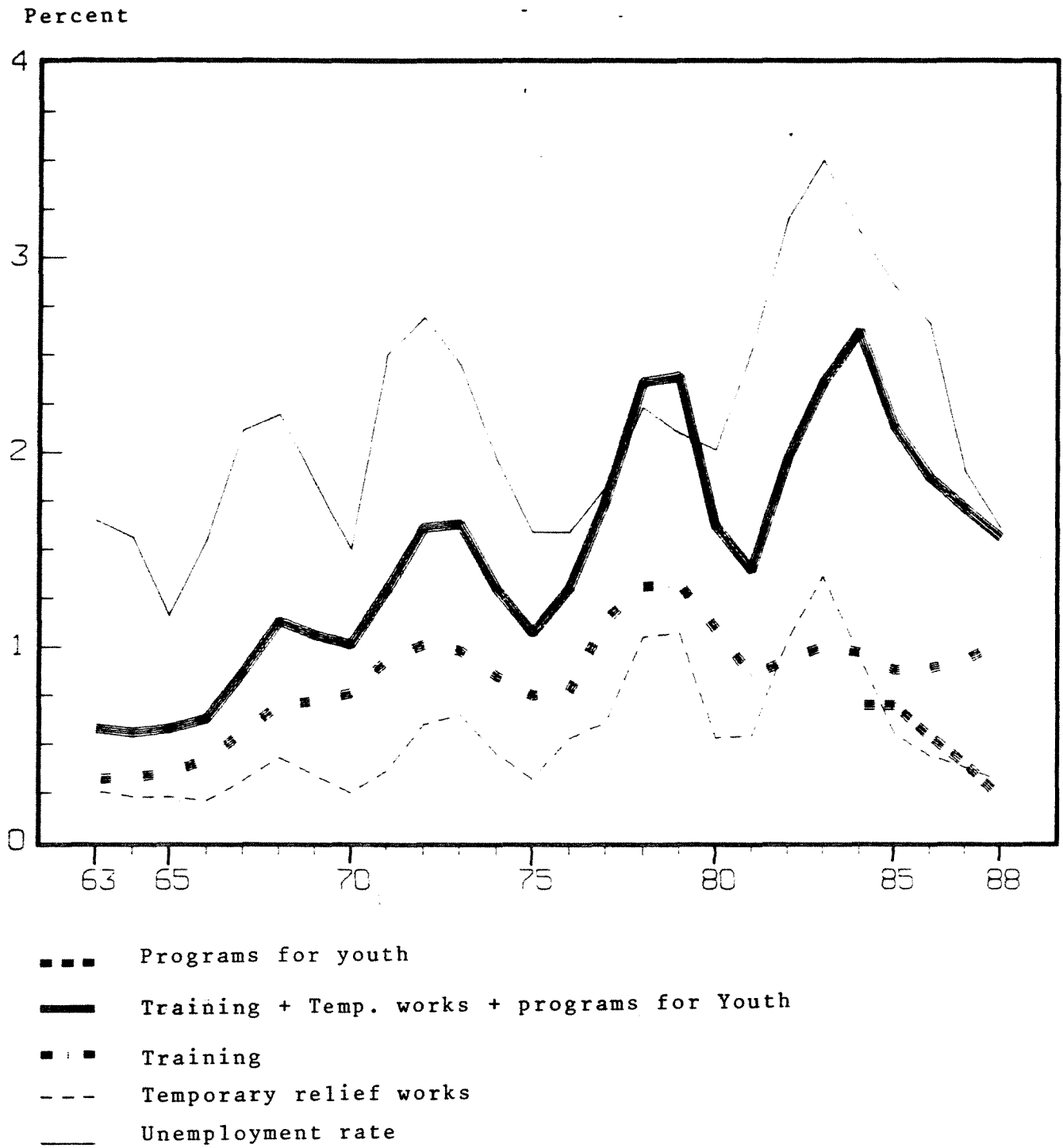
..... Post-gymnasium

- . - . - . Compulsory school plus gymnasium

_____ Compulsory school

Source: Labor Force Surveys in February, Statistics Sweden.

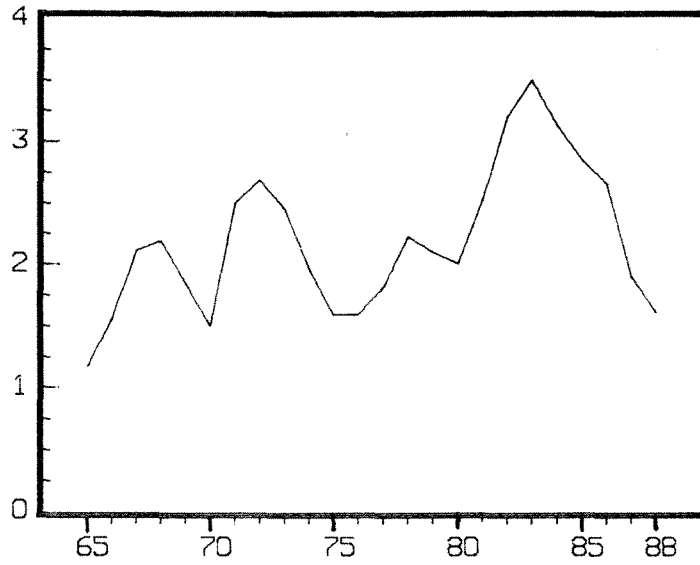
Figure 7. Unemployment and labor market policies.



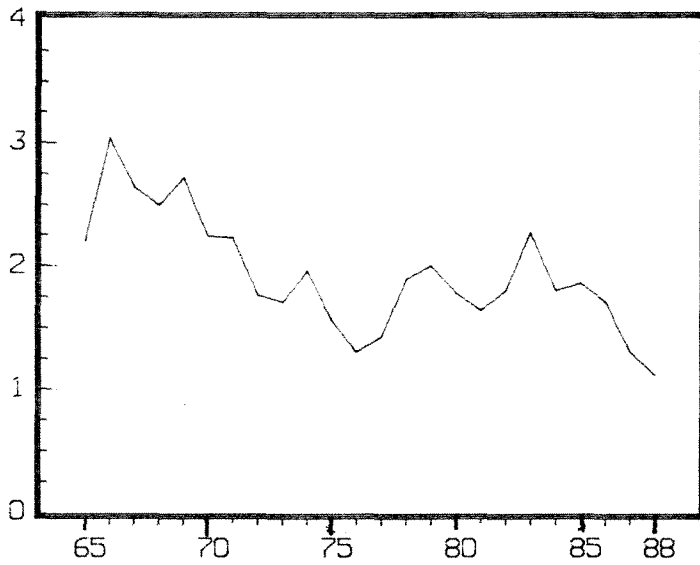
Sources: see appendix.

Figure 8. Unemployment, inflow and duration of unemployment spells.

Percent

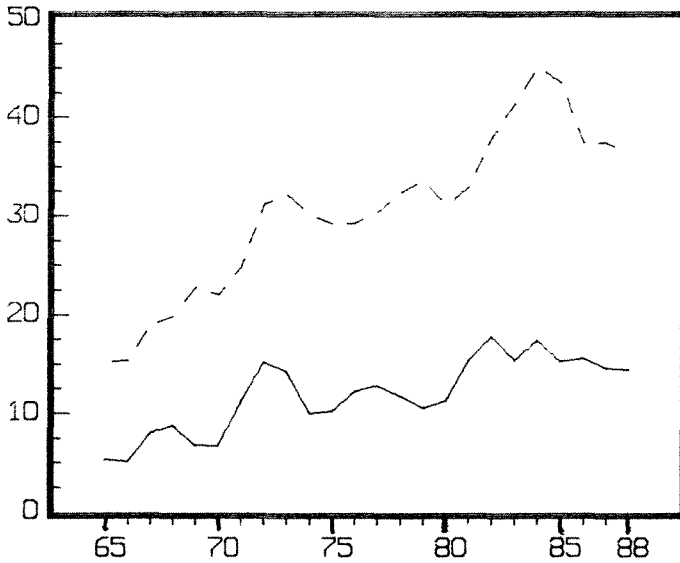


— Unemployment rate



— Inflow of unemployment spells per week (per mille of labor force)

Weeks



— Average completed duration of current spells
 - - - Average completed duration of all spells

Source: See appendix

Table 1 The unemployed by reasons for unemployment

	Percentage of the labor force						
	Total unemploym.	Entrants to labor force	Reentrants to labor force	Temporary lay-offs	Permanent lay-offs	Job undertaken completed	Others
1975	1.6	0.15	0.45	0.05	0.23	0.35	0.36
1976	1.6	0.16	0.39	0.04	0.23	0.37	0.38
1977	1.8	0.17	0.43	0.04	0.29	0.47	0.42
1978	2.3	0.20	0.46	0.07	0.44	0.62	0.48
1979	2.1	0.21	0.41	0.03	0.37	0.63	0.44
1980	2.0	0.19	0.40	0.03	0.29	0.61	0.48
1981	2.5	0.23	0.46	0.05	0.50	0.82	0.45
1982	3.2	0.27	0.57	0.05	0.75	1.08	0.48
1983	3.5	0.28	0.53	0.04	0.84	1.30	0.50
1984	3.1	0.19	0.48	0.02	0.68	1.16	0.59
1985	2.9	0.17	0.46	0.02	0.53	1.10	0.57
1986	2.7	0.13	0.45	—	0.40	1.01	0.67
1987	1.9	0.12	0.38	—	0.26	0.75	0.58
1988	1.6	0.11	0.34	—	0.18	0.58	0.39

Source: Labor Force Surveys.

Table 2 The unemployment by reasons for unemployment. Percent, by sex and age.

	Entrants to labor force	Reentrants to labor force	Temporary lay-offs	Permanent lay-offs	Job undertaken completed	Others
<u>1983</u>						
All	8	15	1	24	37	15
Men	7	12	2	29	37	13
Women	9	18	0	18	37	18
16-24	16	14	1	11	50	8
25-54	5	19	2	23	36	15
55-	0	9	1	54	14	22
<u>1988</u>						
All	7	21	—	11	36	25
Men	7	19	—	13	37	24
Women	7	24	—	9	35	25
16-24	10	26	—	5	38	21
25-54	7	20	—	10	37	26
54-	1	18	—	31	27	23

Source: Labor Force Surveys

Table 3 Proportion of unemployed who receive UI compensation, KAS and no compensation. By sex, age group and duration of unemployment

Year	UI	KAS	No com- pensa- tion	No of unemployed (thousands)	UI	KAS	No com- pensa- tion
	<u>All</u>				<u>Women</u>		
1978	0.45	0.14	0.41	102.6	0.39	0.17	0.44
1980	0.46	0.16	0.38	94.6	0.42	0.18	0.40
1982	0.50	0.14	0.36	161.3	0.45	0.17	0.38
1983	0.51	0.15	0.34	178.3	0.47	0.17	0.64
1984	0.58	0.11	0.31	159.3	0.55	0.13	0.32
1985	0.61	0.09	0.30	139.4	0.60	0.10	0.30
1986	0.63	0.08	0.29	133.5	0.63	0.08	0.29
1988	—	—	—	—	—	—	—
	<u>-19 years</u>				<u>20-24 years</u>		
1978	0.09	0.26	0.65	18.5	0.37	0.19	0.44
1980	0.08	0.31	0.61	18.0	0.40	0.21	0.39
1982	0.12	0.27	0.62	26.7	0.47	0.20	0.33
1983	0.10	0.32	0.58	28.0	0.47	0.22	0.31
1984	0.09	0.11	0.80	10.4	0.49	0.22	0.30
1985	0.09	0.04	0.87	7.7	0.54	0.17	0.29
1986	0.12	0.01	0.87	7.4	0.57	0.13	0.30
1988	—	—	—	—	—	—	—
	<u>25-54 years</u>				<u>55 years and over</u>		
1978	0.49	0.10	0.41	46.8	0.77	0.09	0.14
1980	0.51	0.10	0.39	39.8	0.79	0.08	0.13
1982	0.56	0.10	0.34	76.1	0.76	0.07	0.17
1983	0.56	0.10	0.34	79.9	0.78	0.06	0.16
1984	0.57	0.10	0.33	75.0	0.80	0.05	0.13
1985	0.61	0.09	0.30	65.5	0.78	0.05	0.17
1986	0.65	0.08	0.27	65.5	0.78	0.04	0.18
1988	—	—	—	—	—	—	—
	<u>Unemployed 0-3 months</u>				<u>Unemployed > 3 months</u>		
1978	0.37	0.13	0.50	61.5	0.56	0.17	0.27
1980	0.38	0.15	0.47	59.9	0.59	0.17	0.24
1982	0.44	0.14	0.42	95.9	0.59	0.15	0.26
1983	0.45	0.15	0.40	103.4	0.60	0.15	0.25
1984	0.48	0.13	0.39	92.0	0.71	0.09	0.20
1985	0.55	0.09	0.36	75.5	0.68	0.09	0.23
1986	0.58	0.08	0.34	70.1	0.68	0.08	0.24
1988	—	—	—	—	—	—	—

Source: Labor Market Board (AMS). Officers from the Board report that some of those who are reported as UI recipients might not actually receive benefits because of the waiting periods which exist in the system. Hence, the fraction of unemployed which do not receive any compensation is underestimated.

Table 4 Proportion of unemployed persons who are members of UI funds. By sex and age group

	<u>Both sexes</u>		<u>Men</u>	<u>Women</u>
	Age 16-74	Age 16-24	Age 16-74	Age 16-74
1963	0.21	—	0.34	0.07
1964	0.28	—	0.42	0.08
1965	0.25	—	0.40	0.08
1966	0.31	—	0.48	0.11
1967	0.33	—	0.45	0.18
1968	0.36	—	0.46	0.19
1969	0.37	—	0.49	0.21
1970	0.41	—	0.52	0.27
1971	0.41	—	0.52	0.27
1972	0.40	—	0.49	0.29
1973	0.40	—	0.50	0.28
1974	0.39	—	0.46	0.32
1975	0.40	—	0.50	0.31
1976	0.41	—	0.47	0.35
1977	0.43	—	0.49	0.39
1978	0.50	—	0.53	0.45
1979	0.48	0.32	0.52	0.44
1980	0.48	0.36	0.53	0.43
1981	0.54	0.41	0.60	0.48
1982	0.55	0.39	0.60	0.50
1983	0.57	0.42	0.62	0.50
1984	0.63	0.50	0.65	0.60
1985	0.63	0.50	0.64	0.62
1986*	0.65	0.58	0.66	0.64
1987**	0.64	—	0.65	0.63
1988**	0.61	—	0.62	0.60

* 16-64 years.

** 16-64 years, new definition of unemployment.

Source: Statistics Sweden (SCB), Labor Force Surveys (AKU).

Table 5 Search methods used by unemployed workers.

	(1) Fractio using one method	(2) Fraction using two methods	(3) Fraction using three methods	(4) Fraction with no search at all ^{a)}	(5) Fraction using employ- ment office	(6) Average number of me- thods used
<u>Members of UI-funds</u>						
1963-66	.76	.13	.02	.09	.82	1.05
1967-70	.81	.07	.01	.11	.83	.99
1971-74	.77	.10	.02	.11	.84	1.01
1975-78	.82	.09	.02	.07	.89	1.08
1979-82	.76	.15	.05	.04	.92	1.21
1983-86	.78	.14	.06	.02	.95	1.23
1987	.77	.16	.04	.03	.83	1.21
1988	.67	.21	.09	.03	.84	1.36
<u>Non-members</u>						
1963-66	.66	.13	.01	.20	.52	.96
1967-70	.69	.12	.02	.17	.56	.99
1971-74	.71	.16	.03	.10	.69	1.13
1975-78	.76	.15	.03	.06	.74	1.15
1979-82	.73	.18	.05	.04	.80	1.25
1983-86	.72	.17	.08	.03	.85	1.29
1987	.70	.17	.07	.06	.68	1.25
1988	.59	.26	.10	.05	.69	1.41

a) This is basically an "others" category, but it includes some temporarily laid-off with salary plus unemployed who were awaiting to start a job within 30 days.

*) Excluding (4)

Note: The three search methods asked about are (i) to visit employment offices, (ii) to answer advertisements and (iii) to contact employers.

Source: Labor Force Statistics Sweden.

Table 6 Reasons for leaving unemployment, percent.

	Obtained a job	Back to previous employer	Subsidized employment for handi- capped ^a	Placed in labor market programs	Other reasons	Contact discontinued
	<u>Unemployed ready for immediate placement ^{b)}</u>					
1984	33	3	1	35	16	12
1985	38	3	1	29	18	11
1986	39	3	1	27	18	12
1987	43	2	1	25	17	12
1988	45	2	1	23	17	12
	<u>Unemployed subject to investigation ^{c)}</u>					
1984	20	2	3	31	27	17
1985	22	2	3	31	28	14
1986	22	2	3	31	28	14
1987	22	2	3	27	31	15
1988	22	2	3	29	30	14

a) "Anställning med lönebidrag" and "Samhällsföretag".

b) Search category number 1. This category is very similar both quantitatively and qualitatively to the open unemployed in the labor force surveys.

c) Search category number 2. This category is much smaller than number 1.

Source: National labour market board.

Warning: There might be an error in the data. Has to be checked!