standard error of each estimate in question by using the appropriate standard error table Square these standard errors to get variances and sum the variances Then take the square root of the sum to get the standard error of the difference With the notation shown above, if $/D/ > (2 \times \sigma_D)$, there is a significant difference in estimates A and B at the 95-percent level Assuming the covariance is equal to zero will result in accurate estimates of standard errors of differences for most comparisons presented in the report, except for those between 1973 and 1974 The 1973 and 1974 estimates of the same characteristics, because this is a panel survey, are not uncorrelated If the covariance is assumed to be zero when computing standard errors for year-to-year differences the result is an overestimate and a more stringent test of significance [15]

Nonsampling Errors

Estimates derived from SLIAD are also subject to nonsampling errors These are errors due to nonresponses to the entire questionnaire or to certain items and misreporting either on purpose or because of lack of understanding of the questions

[15] Standard errors for year-to-year differences have been computed, based on non-zero covariances, and are available upon request

Errors also occurred during coding and keying of the data Every effort was made to minimize the effect of these errors Completed questionnaires were first reviewed at a time when respondents could be recontacted for correct or missing data and again at the time of coding Keying was verified 100 percent, and data tapes were computer-edited for reasonableness and consistency In spite of these efforts, some reporting and processing errors remain The major source of error was nonreporting of data related to income

Nuclear family annual income, the major income variable used in the derivation of the income measures presented in the report, had nonresponse rates ranging from 4 percent to 13 percent in 1973 and from 7 percent to 15 percent in 1974 To maximize the amount of useful information available for the analysis, missing income items were filled with data from records maintained by the Social Security Administration—the supplemental security records and the master beneficiary records and summary earnings records for the old-age, survivors, and disability insurance program (A direct match of individual survey records and Social Security Administration program records was made.) In addition, a regression model was used to allocate missing annual income items on the basis of monthly income Afterwards the nonresponse rates for nuclear-family annual income were about 3 percent in 1973 and 4 percent in 1974

Social Security Abroad

Recent Social Security Developments in Austria*

At the end of 1976, the Austrian Parliament enacted significant legislative changes in the social security system that became effective in January 1977 These modifications, embodied in the 32d Amendment to the General Social Security Law of 1955, are notable in their particular concern with financing

—The maximum amount of earnings subject to social security contributions for the years 1977–79 was raised above and beyond the increases called for by the indexing procedure

—The percentage rate of the white-collar worker contribution to both pension and work injury insurance was increased to bring it into line with the rate for blue collar workers

—The white collar pension component was required to transfer revenue to the blue-collar component, which is currently operating at a deficit

—The white collar and blue-collar pension components must establish contingency reserves equal to 1 month's expenditures

The legislation also provides for an extension of social security protection in several areas Non-

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disabled persons under pensionable age who have gaps in their pension insurance coverage are now entitled to buy the necessary credits and thus receive greater pension protection than otherwise possible Members of groups not insured under the compulsory health insurance system, such as low earners, students aged 27 or over, and persons who have dropped out of covered employment, may opt for voluntary health coverage Another feature introduces students' accident insurance that includes cash and medical benefits

Additionally, a gradual increase has been scheduled in the minimum constant-attendance supplement paid to severely disabled pensioners who need help in carrying out their daily activities The eventual goal is to substitute a supplement based on the disabled person's actual need for one related to earnings Finally, the pension increment for retirement postponed beyond the normal pensionable age (65 for men, 60 for women) has been reduced to discourage the continued employment of older persons and make room for the growing number of younger ones who have been unable to find jobs

BASIC PROGRAM PROVISIONS

The Austrian old-age, survivor, and invalidity pension program covers white-collar and blue-collar workers under essentially identical benefit provisions in separate insurance components The remaining workers are covered by special systems for those in mining, government service, self-employment, and other fields [1]

Health insurance (including cash sickness and maternity benefits and medical care) is financed from payroll tax receipts along with a sizable government contribution The program is administered by separate Federal provincial or occupational sickness insurance funds and is compulsory for persons earning at least 1,040 schillings a month [2] The pension program contributes a portion of the health insurance costs to the sickness insurance funds on behalf of pensioners, who are automatically covered Special systems provide coverage for public employees, railroad workers, and the self-employed

The social security system also contains three other branches—work-injury compensation, unemployment benefits, and family allowances The work-injury program is financed by an employer payroll tax that, before 1977, was higher for employers of blue-collar than of white-collar workers The unemployment program is financed by a joint payroll tax along with a contribution from general revenues that covers any deficit and the cost of emergency assistance [3] An employer payroll tax along with provincial grants covers the cost of family allowances

The pension system's chief source of income is a payroll tax split equally between employer and employee In 1976, this joint tax amounted to 17 5 percent for blue-collar workers and 17 percent for white-collar workers on earnings up to a monthly ceiling of 13,200 schillings, or about 40 percent more than the wage of an average worker in manufacturing The pension system also receives an annual Government subsidy to cover any deficit

Austria's financing is on a pay-as-you-go basis In the past, the pension components had to maintain two separate reserves (1) a nonliquid reserve—1 0 percent of yearly expenditures—held in the form of bonds and long-term investments that could not be used to resolve any short-term financial problems, and (2) a liquid reserve—0 5 percent of yearly expenditures—that the components could draw on whenever they encountered an increased need for cash to cover expenses A "support fund" for the health insurance system is limited to 5 0 percent of contributions and a similar fund for work-injury insurance is limited to 2 0 percent

Austria has a common income ceiling for contribution and benefit purposes, which, together with past earnings records, is adjusted automatically each year on the basis of changes in national average covered earnings To update the ceiling for the following January 1, a coefficient is found by calculating the change in average covered earnings from 2 years to 1 year before the

[1] For fuller program details, see *Social Security Programs Throughout the World, 1975* (Research Report No 48), Office of Research and Statistics, Social Security Administration, 1976, pages 10–11

[2] As of December 9, 1977, 1 schilling equaled 6 4 U S cents

[3] Before the new law took effect, the employer work-injury payroll tax was 2 percent of covered earnings for blue collar workers and 0 5 percent for white-collar workers

current year The resulting coefficient is then applied to the ceiling for the current year to determine the ceiling that is to be in effect during the next year The lag between the time of the rise in the index and the corresponding adjustment in the ceiling is nominally 2 years In revaluing benefits in force, however, the adjustment is not automatic Subject to the approval of the Advisory Committee on Pension Adjustment and of Parliament, the Social Affairs Minister decides, on the basis of prevailing economic conditions and demographic patterns, whether or not to change benefits in force by as much as the change in the ceiling

BACKGROUND

The Austrian economy rebounded more strongly than originally anticipated from the 1974 recession—in terms of an increase of real gross national product, a decline in the rate of consumer price increases, and a moderate increase in real wages In light of the improving economic situation, the Austrian Parliament enacted a number of improvements to the social security programs

At the same time, however, the impact of the 1974 recession on the financial position of the social security system along with the effects of other long-range factors drew attention to the need for additional sources of revenue Consequently, the recent legislation provided measures to improve the system's financial situation Particular emphasis was placed on restoring equilibrium to the blue-collar pension component

The financial stress has been caused primarily by declining employment, which reduces the payroll tax receipts needed to finance the system at the same time that it raises expenditures for unemployment benefits and job-training measures Meanwhile, the costs of other social security programs have continued to escalate because benefits have been tied to rising wages

The contribution and benefit ceiling is adjusted automatically each year according to movements in national average covered earnings When the adjustment mechanism was introduced in 1966, economic forecasts were optimistic, projecting low inflation and steady growth rates in the years ahead On the basis of such favorable assumptions, planners aimed for a ceiling set at about twice the national average covered earnings During periods of low inflation rates and high employment levels, the adjustment mechanism functioned well

Because of the continuing sharp inflation of the 1970's, time as a factor in adjusting the ceiling has become more crucial [4] During this period of rapidly rising prices and wages, the 2-year lag in the adjustment has caused the ceiling to become steadily lower in relation to current earnings As a result, the low-income earners' share of social security contributions has expanded and the share of those with high incomes has diminished as the contribution base has accounted for a steadily smaller proportion of their income

Wage-and-salary increases have tended to be greater for higher-paid than for lower-paid workers, causing the proportion of workers earning above the ceiling to grow more rapidly than the proportion of those with all their earnings below the ceiling The better-paid worker has nevertheless been adversely affected because the unduly low ceiling on contributions has placed a strong limitation on his benefits To the national pension system, the low ceiling means that an increasingly smaller percentage of the total payroll becomes subject to taxation In 1975, for example, 13 2 percent of the insured population had earnings above the ceiling, compared with only 6 5 percent in 1966

Long-range economic and demographic factors have also placed considerable stress on the pension program, especially the blue-collar component In Austria, as in all highly industrialized countries, the number of blue-collar workers has been declining rapidly as the result of economic and technological changes and because many jobs have been reclassified from blue-collar to white-collar status Consequently, the white-collar component of the pension program has gained additional contributors while the number of persons supporting the blue-collar component has declined Though payroll tax receipts rose in both pension components during the years 1968–74, the growth rate has been somewhat slower in the blue-collar component During that period, blue-collar payroll tax receipts merely doubled while white-collar receipts increased two and one-half times

[4] See Max Horlick and Robert Lucas, "Role of the Contribution Ceiling in Social Security Programs Comparison of Five Countries," *Social Security Bulletin*, February 1971

The financing problem has been further compounded by the decline in the ratio of contributors to beneficiaries caused by the growth of the aged population. A smaller work force—reflecting the decline in employment triggered by the 1974 recession as well as the long-term changes in the demographic structure—has meant that fewer contributors must support increased pension costs. For every 100 persons insured under the pension program, there were 14.9 old-age pensioners in 1966 and 19.4 in 1975.

The decrease in the ratio of insured persons to old-age pensioners has been especially striking in the blue-collar component, where it has resulted not only from the growth of the aged population and the repercussions of the recession, but also from the transfer of numerous active blue-collar workers to the white-collar component, as noted earlier. During the period 1973–76, the number of pensioners under the blue-collar component rose from 21.5 for every 100 insured persons to 24.7, compared with a relatively stable ratio throughout that span of about 14 retirees for each 100 workers covered under the white-collar component.

In recent years, the income of the white-collar component has continued to be sufficient to cover its expenditures and meet its reserve requirement. Income in the blue-collar component, however, has lagged behind its expenditures. To compensate for the shortfall in revenue, the Government has been contributing increasing amounts to the blue-collar component. In the period 1972–75, for example, the Federal subsidy rose from 5.5 billion schillings, or about 26.0 percent of pension expenditures, to 9.5 billion schillings, or 31.5 percent of expenditures.

NEW FEATURES

Financing Changes

Modifications in the system's financing arrangements deal primarily with the need to increase overall income to the system, distribute pension costs more equitably between the white-collar and blue-collar components, and meet the system's increased need for cash to cover short-term deficits. The provisions to meet these objectives are discussed below.

Earnings-base increase.—To expand the proportion of persons in the labor force with all their earnings below the contribution and benefit ceiling, the new law raises the earnings base for each of the years 1977–79 by an additional 900 schillings on top of the increase under the automatic-adjustment provision. In the short run, the increase in the ceiling will bring additional revenue into the system; in the long run, it will result in higher cash benefit costs. For the pension and work-injury benefit programs, the monthly ceiling was set at 15,000 schillings for 1977 (about one and one-half times the wages of an average worker in manufacturing in 1976) and at a projected level of 16,800 schillings and 18,900 schillings, respectively, in 1978 and 1979. The health insurance contribution ceiling was fixed at a monthly earnings base rising from 9,900 schillings in 1977 to 12,600 schillings in 1979.

Contribution-rate equalization.—The new amendment abolishes the preferential pension and work-injury payroll tax rates previously enjoyed by white-collar workers. As a result, blue-collar and white-collar workers now contribute a uniform percentage of covered earnings to finance their respective programs. The pension contribution for white-collar workers has been raised by half a percentage point—from 17 percent of covered earnings to 17.5 percent, paid equally by employer and worker. For the work-injury benefit program, the employer payroll tax rate has been set at 1.4 percent for 1977–78 and 1.5 percent thereafter. By 1979, the net result will be a reduction of half a percentage point for blue-collar workers, but an increase of one percentage point for white-collar workers.

Transfers between components.—To compensate for the changing contribution pattern stemming from the increase in the ratio of white-collar workers to blue-collar workers, direct financial transfers between the two pension components are now authorized. The size of the transfer is determined on the basis of projections of expected annual income loss to the blue-collar component resulting from the changing contribution pattern. Over the period 1973–80, the white-collar component must transfer a total of 4.378 billion schillings to the blue-collar component, according to the following schedule:

Period of income loss covered	Amount transferred (in billions of schillings)
1973–75	1,433
1976	704
1977	796
1978	878
1979	417
1980	150

Emergency-reserve revisions.—The amendment also includes a pension-financing revision aimed at meeting the system's increased demand for cash and, at the same time, at adding greater flexibility to the program. As noted earlier, pension agencies had been required to maintain a nonliquid reserve composed of bonds and long-term investments that could not be used to meet immediate cash needs plus a liquid reserve that could be used for that purpose. The new legislation eliminates the nonliquid reserve requirement. At the same time, the blue-collar and white-collar pension components are required to increase the size of their liquid contingency reserves from 0.5 percent to 7.14 percent of annual pension costs.[5] Before this reserve can be tapped to cover short-term deficits, however, the approval of both the Social Affairs and Finance Ministries is required. Once tapped, the reserve must then be restored to its required financing capacity.

Other Program Changes

Purchase of pension credits.—To provide adequate pension coverage to more persons, the new law makes possible the purchase of pension credits to fill gaps in coverage for the period 1956–76. Each month of pension coverage costs 1,000 schillings for men and 700 schillings for women, but these charges may be reduced by as much as 75 percent in cases of hardship. To take advantage of this provision, the individual must be below pensionable age and healthy and have at least 60 months of coverage already credited for 1956–76, or 180 months of coverage for 1939–78.

Receipt of an old-age pension in Austria requires a long contribution or work history—180 months of contributions, 12 of which must have been made within the latest 3 years. The old-age benefit formula is based chiefly on length of coverage. In simplified form, it calls for the payment of (1) a basic amount equal to 30 percent of average earnings in the latest 5 years, and (2) graduated increments for each year worked.[6] Consequently, the more months of coverage, the higher the old-age benefit.

The principal beneficiaries of the credit-purchase option are those persons who for some reason have incomplete insurance records. Included in this category are housewives who have dropped out of covered employment to raise a family, occasional workers, and persons who have given up work in occupations covered under special social security systems and are now working in employment covered by the general system.

Annual basis of earnings amounts.—Since contributions are paid only on monthly earnings up to the ceiling, persons whose earnings significantly exceeded the ceiling in some months but fell below it in others previously did not receive a pension proportionate to actual earnings. For contribution and benefit purposes, yearly earnings may now be spread out over a 12-month period, thereby balancing out sharp variations in the monthly amounts. Sales persons whose commission earnings are computed on a nonmonthly basis should benefit from this new provision.

Voluntary health insurance coverage.—Although approximately 95 percent of the Austrian population has some type of national health insurance coverage, the remaining 5 percent—primarily students aged 27 or over and those who leave covered employment—have been excluded. Such persons are now given the opportunity to obtain coverage under the general system. For purposes of assessing voluntary health insurance contributions, the compulsory health insurance ceiling of 9,900 schillings a month has been raised by one-sixth. The voluntarily insured person pays a premium equal to 5 percent of this increased ceiling. The current cost is 570 schillings a month, although it can be reduced to as little as 135 schillings, depending on the applicant's resources.

Student accident insurance.—Another feature of the 32d amendment is the introduction of accident insurance for students attending primary or

[5] The reserve under the new law is large enough to cover one of the 14 benefit payments made each year.

[6] The formula calls for increments of 0.6 percent a year for 1–10 years of work, 0.9 percent for 11–20 years, 1.2 percent for 21–30 years, and 1.5 percent for 31 or more years.

high schools or institutions of higher learning At no charge to their parents or themselves, such students are insured against accidents occurring en route to and from school, on excursions away from school, and during school-sponsored events This program is financed out of revenue transfers from the work-injury and family allowance programs

Benefits include medical care, rehabilitation and retraining measures, and cash benefits in the event of permanent disability The amount of the cash benefit depends on the extent and duration of the disability It ranges from a lump sum if the incapacity lasts 3 months and causes a 20–50 percent disability to a lifetime pension for a disability exceeding 50 percent paid at the end of the envisioned school completion date and entry into working life (no earlier than at age 15)

Help for the severely disabled—Constant-attendance supplements equal to 50 percent of the pension (but subject to minimum and maximum amounts) are paid to totally disabled old-age and invalidity pensioners who need care on a regular basis Since the pension is based chiefly on the length of coverage and past earnings, the size of this supplement does not adequately reflect the disabled person's need for assistance

The 32d amendment provides the legal framework for changing the shape of the constant-attendance supplement from an amount based on the disabled person's work history to one calculated on the basis of actual need To achieve this objective, the minimum and maximum constant-attendance benefit amounts are to be raised gradually, the former at a faster pace than the latter until a uniform amount is reached In 1977, the minimum monthly constant-attendance allowance was 1,317 schillings and the maximum was 2,133 schillings

Job creation—An estimated 300,000 young persons are expected to leave school and enter the work force in the next 5 years To help make room for these young persons by encouraging the departure of their elders, the recent legislation reduces the pension increment for retirement deferred beyond age 65 for men and age 60 for women Previously, for each year of work beyond the normal pensionable age, the benefit was increased by 2 0 percent annually for women aged 61–64, by 3 0 percent for all persons aged 65–70, and by 5 0 percent for persons aged 71 and over By postponing retirement until he reached age 68, for example, a man formerly could have increased his benefit by 9 0 percent The new provision reduces the increment to 1 5 percent for each year retirement is delayed, up to a maximum increase of 4 5 percent for 3 years of continued work