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ABSTRACT
        Based on the conviction that better and more
systematic planning of teacher supply and demand is needed, this
study explores the factors determining both the demand for and supply
of teachers and presents the measures available to educational
planners in their efforts to maintain and achieve a balance. The
author argues that creating the capacity to respond to changed
circumstances should be as much an objective of educational planners
as making accurate forecasts of teacher supply and demand. He
demonstrates that the managers of the teaching force, faced by an
incipient teacher shortage or surplus, have in fact a wide range of
policy options open to them in the recruitment and deployment of
teachers. The booklet is intended to provide useful background
information to those whose responsibility is projecting teacher
requirements. It is part of a series designed for educational
planners, administrators, government officials, and policy makers,
especially in developing countries. (Author/JM)

Fundamentals of educational planning

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Planning teacher
demand and supply

Peter Williams

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Fundamentals of educational planning

The booklets in this series are written primarily for two types of
clientèle those engaged in—or preparing for—educational planning
and administration, especially in developing countries, and, others,
less specialized, such as senior government officials and policy-
makers who seek a more general understanding of educational
planning and of how it is related to overall national development
They are devised to be of use either for private study or in formal
training programmes.

Since this series was launched in 1967 the practice as well as the
concept of educational planning has undergone substantial change
Many of the assumptions which underlay earlier attempts to put
some rationality into the process of educational development have
been abandoned or at the very least criticized At the same time,
the scope of educational planning itself has been broadened In
addition to the formal system of schools, it now includes other
important educational 'efforts' in non-formal settings and among
adults Attention to the growth and expansion of educational systems
is being supplemented and sometimes even replaced by a growing
concern for the distribution of educational opportunities and bene-
fits across different regions and across social, ethnic and sex groups
The planning, implementation and evaluation of innovations and
reforms in the content and substance of education is becoming at
least as important a preoccupation of educational planners and
administrators as the forecasting of the size of the educational system
and its output Moreover, the planning process itself is changing,
giving more attention to the implementation and evaluation of plans

as well as to their design, and exploring such possibilities as integrated planning, participatory planning, and micro-planning

One of the purposes of these booklets is to reflect this diversity by giving different authors, coming from a wide range of backgrounds and disciplines, the opportunity to express their ideas and to communicate their experience on various aspects of changing theories and practices in educational planning

Although the series has been carefully planned, no attempt has been made to avoid differences or even contradictions in the views expressed by the authors The Institute itself does not wish to impose any official doctrine on any planner Thus, while the views are the responsibility of the authors and may not always be shared by Unesco or the IIEP, they are believed to warrant attention in the international forum of ideas

Since readers will vary so widely in their backgrounds, the authors have been given the difficult task of introducing their subjects from the beginning, explaining technical terms that may be commonplace to some but a mystery to others, and yet adhering to scholarly standards This approach will have the advantage, we hope, of making the booklets optimally useful to every reader

Preface

Behind the coolly systematic approach that Professor Williams adopts in his examination of teacher supply and demand is a logic that cannot fail to appeal to planners—although its implications, if accepted, would require the use of more complicated planning procedures than have been customary Briefly, the logic is as follows. Expenditure in education has now reached a point where continued escalation is impossible, retrenchment is likely and greater cost efficiency is imperative. Because education is labour-intensive the cost of teachers consumes the greater part of the education budget. But the cost of teachers is exacerbated by the cost of teacher training and the 'wastage' of trained teachers as they 'drop out' of the profession for one reason or another Confounding the situation more is the now evident failure of education systems to control the flow of trained teachers, with the result that after decades of shortages there now appears to be in many parts of the world a surplus of teachers

Professor Williams' logic leads him to argue the case for better and more systematic planning of teacher supply and demand—a solution that will not necessarily commend itself to all planners or educationists For example, critics will be quick to point out that Professor Williams in advocating 'manpower planning' in education is espousing a cause that has in the past been demonstrably discredited. But Professor Williams has a counter to this and argues pursuasively that the circumstances surrounding teacher supply in public education systems are singularly different from those existing in the competitive markets of the private sector Furthermore, he

asserts, they are ideal for the appropriate application of considered manpower planning techniques

The IIEP is delighted that Professor Williams should tackle such an important and difficult issue in the way that he has done The fact that some may disagree with him is, we think, all to the good Of recent years the IIEP has come to cherish the idea of intellectual confrontation, believing that it is out of the opposing of ideas that knowledge progresses and balanced judgement emerges

Professor Williams' book thus ought to appeal to readers of every persuasion Those who agree with his position will have the added benefit of seeing views clarified and useful mechanisms' for action advanced Those who would oppose it will at least know in detail the shape of their adversary and the formidable task that confronts them in attempting to reach a 'better' solution

Michel Debeauvais
Director, IIEP

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Acknowledgments

I. Introduction

Aims and coverage

The main aims of this study are
1. To explore the factors determining demand for, and supply of, teachers.
2. To consider the policy options available to educational planners in bringing about balance between teacher demand and teacher supply.
3. To describe briefly methods of calculating demand and supply of teachers.

A few points about the content must be made at the outset to dispel any possible misconceptions.

First, this is not in any sense an instruction manual on calculating teacher requirements, even though it does outline briefly the data needed and the basic steps necessary for such calculations. Those who wish to pursue the methodology of forecasting teacher needs in greater detail are advised to consult more specialised works.[1]

Second, this is not a book about teacher training as such. It is true that a country's teacher-training institutions constitute its major source of additional teachers. But discussion of teacher sup-

1 See for example Chesswas, John, *Methodologies of educational planning for developing countries*, 2 vols (Paris, Unesco IIEP, 1969), especially Vol I, pp 23-26, 76-79 and Vol. II, pp 20-24, 50-56 and 72-79, or Werdelin, Ingvar, *Quantitative methods and techniques of educational planning* (Beirut, Regional Centre for Educational Planning and Administration in the Arab Countries, 1972) pp 186-202

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ply must range wider than teacher training It involves consideration of a broad range of alternative teacher recruitment possibilities, and also examination of the factors affecting the flow of people into and out of the profession In so far as teacher-training programmes do come under scrutiny in these pages, it is their quantitative impact, on overall teacher supply, rather than the more qualitative issues of content and philosophy, that provides the focus Nor, third, is this essentially a study of the rôle and status of the teacher and conditions of service in the teaching profession, these topics are considered only from the point of view of their crucial impact on the quantity and quality of teacher supply

Fourth, 'teacher' in this volume generally refers to school teachers in the first and second levels of education The same general principles as apply to school teachers are in fact applicable to the planning of demand and supply of teachers for vocational programmes and for third-cycle institutions, and to the broad field of out-of-school education Some differences of emphasis in planning teacher demand and supply in these latter areas should, however, be mentioned Courses and teacher needs in non-school education tend to be more specialised than in schools, offering fewer possibilities of internal substitution of one type of teacher for another On the other hand external substitution is easier, as individuals may move more freely between teaching and the practice of the occupation in which they are instructing. Also there tends to be less centralization of responsibility for recruitment and training across the sub-sectors of 'vocational education', 'tertiary education' and 'out-of-school education' as a whole These differences could in fact prove significant for future planning in relation to school teachers Some observers foresee that school systems themselves will become more diversified and that teachers' roles within the school will become more differentiated If this occurs, some of the more complex planning problems encountered in respect of non-school teachers may have to be faced also at school level.

Lastly, this book addresses itself to the planning of teacher demand and supply at the level of the education system—national or regional—rather than at the institutional or individual level The focus on system-wide forces and trends does not however indicate any lack of interest in the welfare of individual teachers or in their concerns and motivations Indeed the very reverse is the case good overall management of teacher demand and supply is

essential if serving teachers are to be protected against the threats to their welfare posed by teacher shortage or surplus. The reader is also reminded that planning of teacher demand and supply cannot be regarded simply as a technocratic exercise being undertaken in a political and social vacuum. Planning for the teaching force is necessarily bound up with political decisions and politics has well been described as 'the art of the possible'. Only if teacher understanding and co-operation are sought will the planner find that some of his proposed solutions are capable of actual implementation. In the author's view it is neither legitimate nor possible to treat teachers and their interests simply as instruments to be manipulated in the pursuit of abstract planning goals.

Although some readers may initially find somewhat curious the notion of 'planning teacher demand' as well as teacher supply, it may be that they will come to recognize the validity of the concept as they read this booklet, more especially the discussion in Chapters III and V. Teacher requirements have no autonomy of their own, but are subject to decisions about educational structures, enrolment rates, pedagogical approaches and grouping of students, school hours and teaching loads, teacher remuneration, and so on. In other words, teacher demand is not an independent force, but is as amenable to management as teacher supply

Teacher planning and overall educational plans

The planning of teacher demand and supply is a central concern of educational planners. To be sure, the ultimate concern and focus of educational administration, and of educational planning which is a key aspect of it, should be the learner and his learning. And it is also true that the achievement of certain limited instructional objectives through teacher-less systems has become technically more feasible as a result of the continuous development of self-instructional methods and of the adaptation of the mass media for educational purposes. Nevertheless, even where modern gadgetry has been brought in to improve the effectiveness of learning, we still find that in every school system the direct personal contact between pupil and teacher remains the linchpin of the educational process The effect of the new technical devices in education has thus been not to abolish the rôle of the teacher, but rather to assist it to evolve in a creative way from that of authoritative instruction to

one of facilitation and guidance of the learning process Indeed the teacher has a crucial rôle to play in organizing and 'orchestrating' the use of the media and learning aids, to give the greatest educational benefits.

In mounting any new, changed or expanded educational programme, therefore, we find that one of the highest priority concerns is securing the necessary teachers for it. Teacher supply has to be planned well ahead Recruitment for teacher-training courses may have to be undertaken as much as five or six[1] years ahead of the time that trained teachers will be needed in the schools If the teacher-training programmes themselves have not yet been established, it may require an additional two or three years to build colleges, recruit training staff and design and mount the training courses This necessity to think well ahead about teacher requirements is one of the major impetuses behind the development of educational planning

Careful planning of teacher supply is as vital to qualitative as to quantitative change in education New language policies, revised curricula involving changed approaches or different subject emphases, new equipment and teacher aids all have implications for—and in turn may depend upon—adequate teacher supply, and will make heavy demands upon a country's teacher-training and teacher-retraining capacity Realistic curriculum planning is intimately bound up with questions of teacher needs and teacher availability

Particularly in periods of rapid educational expansion, the teacher-training system may itself come to account for a significant part of educational effort and expenditure It is not unknown for teacher training to absorb as much as 10 or 20 per cent of the Ministry of Education budget, and to account for a high proportion of enrolments at secondary or tertiary levels Thus teacher supply becomes an important consideration not just as a key input for the expansion and improvement of primary, secondary and tertiary levels of education, but also itself a major competitor for the resources available to the education sector Such resources being scarce, there may be conflict between the demands for spending on schools and for spending on the teacher-training system This may be seen as representing the classic economic problem of

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1 In some countries, Nigeria for example, the basic primary teacher-training course has been as long as five years

choosing between present benefits (teachers for the schools now)
and future benefits (more and better teachers for the schools but
later), or, in economic jargon, of choosing between consumption
and investment. In seeking the optimal allocation of resources
between schools and teacher-training institutions, the following
kinds of issues must be broached. Are capital and teachers needed
more urgently in schools or in teacher-training institutions? For
countries with acute manpower shortages what is the trade-off in
terms of national social and economic advantage in allocating the
best-qualified students between teacher-training colleges on the one
hand, and courses leading to the university and other higher pro-
fessions on the other? If, for example, there is a shortage of well
qualified secondary graduates in mathematics and science, how
many of these should be diverted from the pressing claims of agri-
cultural engineering and medical training to go into teacher train-
ing? Should the manpower needs of science-based occupations be
partially satisfied now, or should one starve these professions of
entrants temporarily—either by manpower direction or by financial
inducement—in order that the quantity and quality of secondary
science and maths output may be more substantially improved in
five years' time? Planning concerns choices for the future, and in
education some of the most difficult decisions concern the propor-
tion of current resources to be invested in securing future teacher
supply

A further reason why teacher demand and supply are so central
to the concerns of educational planners is the cost of employing
teachers. Their salaries account for an extremely high proportion
of recurrent expenditure on education, particularly at the primary
level. Changes in the qualifications of teachers or in the pupil-
teacher ratio can have enormous impact on the level of the
education budget. This point is taken up again on page 27

Necessity for long-term teacher planning

We have considered some of the reasons why planning of teacher
demand and supply is a central concern of educational planners—
because the teacher is a key factor in the learning process, because
programmes of educational expansion or improvement require
forward preparation, because the teacher-training system is itself
competing with schools and other educational programmes for

resources, because of the dominance of teacher salaries in educational finance Since time sequence and phasing are of such cardinal importance in all educational planning, it may be useful to explore in a little more depth how they impinge on teacher demand and supply

Reference has already been made to the 'lead-time necessary to mount teacher-training programme and to put students through the courses This means that if, for example, new kinds of teachers are going to be needed in the schools in 1990 action must be initiated in the early to mid-1980s to produce them However, one should beware of exaggerating the extent to which lack of time to train teachers actually prevents short-term growth of enrolment To do so would be to fly in the face of historical experience For the world has witnessed in country after country in the 1960s and 1970s extraordinary rates of enrolment expansion *without* the prior thorough preparation of the teachers to staff it Untrained teachers have been engaged at very short notice and in large numbers for primary and general secondary schools In the teaching field one witnesses an apparent toleration of the dilution of the professional cadre on a scale that would bring massive protest if it were applied to civil engineers, surgeons or airline pilots. Such dilution is possible only to the extent that the unqualified personnel represent genuine substitutes for trained teachers It may be that in some of the teacher's roles—that of the child-minder, for example—relatively full substitution may be effected by employing an untrained person, and it is hard to argue that a particularly lengthy training is necessary for this side of the teacher's job

Experience has shown that, given the employment situation in most countries of the world and the offer of a reasonable livelihood, enough 'warm bodies' can readily be drawn from the streets or the fields to stand in front of classes as 'teachers' Some of these hastily recruited, inexperienced and untrained teachers have done a splendid job in more than just a child-care sense, raising questions indeed about the appropriateness of the structure and content of traditional teacher-training programmes to the actual classroom job of the teacher

But successful as these makeshift arrangements may have been in increasing school attendance, the question is how far the quality of education, in terms of pupil learning, has suffered Educationalists will strongly challenge the view that without special preparation

'anyone can teach' well, and will argue that the professional skills, knowledge and motivation required by teachers are specific to the profession and can be acquired only through teacher training Recent studies by the Institute of International Education in Stockholm lend support to the view that in developing countries teacher effectiveness is associated with the amount of training received[1] On the other hand there are those who question the cost-effectiveness of teacher training in developing countries[2] The resolution of this issue is complicated by the fact that in many countries teacher-training courses contain a large element of general education which is not specific vocational preparation for teachers In so far as such general education is also obtainable outside teacher-training institutions, lead-times for teacher supply could be reduced, by confining teacher-preparation courses to the vocational elements only Of course, not all teacher-educators would agree that the advantages of reduced lead-time would compensate for what they would see as pedagogical disadvantages of divorcing general education from vocational preparation Another way of reducing lead-times, and one which is enjoying growing popularity, is to admit to teaching persons with minimal professional training and provide them with the necessary professional courses on an in-service basis

Sequence is important in education planning, not only for the long lead-times required to bring about change, but also for the long 'lag-times' over which past decisions have their ineluctable effects. Nowhere is this more evident than in the structure of the teaching force In taking on large numbers of poorly qualified and unqualified teachers to make possible rapid enrolment expansion, the education authorities should remember that just as problematic as the lead-time of several years to produce trained teachers, is the lag-time of maybe forty years over which teachers may remain in the teaching force[3] If they have not been well trained, or have

1 Husen Torsten *New patterns and structures of teacher education* Address at Institute of Education University of London, November 1977 (to be published)
2 World Bank, Education Sector Working Paper Washington, D C , 1974 p 36
3 This point was expressed rather strikingly by the Ghanaian Minister of Education who in 1970 told Parliament 'Sometimes I think we are all of us too impatient for sudden change and do not sufficiently recognise that basic improvements take a long time to produce results in education Some of the teachers who taught me in the 1930s and 1940s received what education and training they had at the end of the last century Equally we are now training young teachers in our colleges who will still be teaching in the year 2010 A D when

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been trained in skills or subject areas which become obsolescent, then the system—its schools and its students—must suffer from this weakness for decades since the authorities have a tacit if not indeed an explicit obligation to employ them until retirement. Something can be done for inadequately trained teachers through retraining and in-service courses, but a basic deficiency of educational background is almost impossible to correct entirely at a later stage.

As regards untrained teachers, serious time-lag effects have often been mitigated by high rates of wastage and turnover among such teachers. This is particularly true of newly hired young teachers who may be given only temporary appointments and may then have to choose between taking regular training, possibly on an in-service basis, and leaving teaching altogether. In turn young people may themselves see teaching only as a temporary staging-post, which will give them the opportunity to improve their qualifications through part-time study, or to look around for other more remunerative employment. The older untrained teacher, while often competent and experienced, represents a potential longer-term burden that the system may carry for decades, with many older teachers lacking the potential for further professional development, and their employers reluctant or unable to terminate their services.

The seriousness of lag effects will depend largely on whether the teacher force is expanding and on the pace and evenness of such growth. In this connection one should contrast systems experiencing rapid and steady growth with those undergoing uneven development. In the first case a continuously expanding system can overcome lag effects by taking advantage, in its recruitment policies, of the rising levels of educational attainment in the population. The level of educational and professional qualifications of the teachers can gradually be raised, and a steady flow both of vacancies for new recruits and of promotion opportunities for existing teachers will be available. The older less adequate teachers will come to form a steadily diminishing proportion of the teaching force.

The above situation should be contrasted with one of imbalanced growth in the teacher force of the kind that many of the world's education systems have recently been experiencing. In some of the more developed countries this has been due to a profound demo-

Hon. Members and I will long be gone and their young pupils in that year may still be working in A.D. 2070 a hundred years from now.

graphic change with birth rates swinging abruptly from growth to decline. Enrolments have has stabilized or fallen causing a consequent drop in the required number of teachers. In other countries including many developing countries, enrolments and teacher needs are still growing but at a slower pace than hitherto. The problem for many of them arises from the fact that the teacher-training system was expanded to cope with an exceptional level of annual requirements when enrolment ratios were rising strongly and there was a need to replace unqualified teachers or expatriates. Once this phase passed, they were left with teacher-training capacity far too large for their regular continuing needs which are basically to make good wastage and cater for the effect of population growth. In some countries the lessening of teacher demand has been partially due to restructuring of education, with some stages being shortened by one or more grades. Others, confronted by economic recession have had to retrench on educational expansion for financial reasons. The inexorable rise of teachers' salaries, in particular, has made it difficult to sustain rapid growth of the teaching force.

So much for the causes. The consequences of a very uneven rate of development of teacher supply can be far-reaching and serious, especially when a period of heavy teacher recruitment is succeeded by one of slower growth in the size of the teaching force. A typical situation particularly among newly independent countries, has unfolded in the following way. A rapid expansion of primary and secondary schooling has been launched rather abruptly, often in response to a sudden surge in popular demand, before good-quality output from the higher levels of the school system is available for training as teachers. In these circumstances trainees of very limited educational background—sometimes with only a completed primary education—have been enrolled on crash courses in hastily constructed teachers' colleges, staffed by relatively inexperienced tutors. In addition many unqualified teachers have been hired. With the passage of time the problem recedes somewhat, for two main reasons. First, teacher-training capacity, and output of trained teachers, rise strongly and this begins to make inroads into the ranks of the untrained. Second, for the reasons outlined in the previous paragraph, demand itself may moderate. In consequence whilst the overall *stock* of teachers continues to rise, albeit more slowly than hitherto, the annual required *flow* of newly trained teachers severely diminishes.)

Two serious consequences follow. In the medium or even short term the teacher-training system must stabilise, or even contract. This is so despite the fact that it can now attract a much better level of recruits than before—perhaps now even with upper secondary education—and will thus actually have to turn away candidates for training who would have been welcomed with open arms only five or ten years ago. Ironically, too, the need for contraction may come just as the teachers' colleges have at last obtained tutors and buildings of the required quality. A number of countries in both more and less developed regions of the world have experienced this dramatic transition from rapid expansion to savage retrenchment[1] In such countries the recent period of closing colleges and reassigning tutors has been in melancholy contrast to the carefree manner in which new places were created and new appointments made only a decade ago.

Second, long-term difficulties in the structure of the teaching force will result from the uneven growth of teacher supply. Imbalance in terms both of age and of quality may come about. For the implication is that large numbers of teachers are admitted to the teaching force at a time when educational requirements and training course quality are somewhat low, and have then been succeeded by smaller groups of teachers of much higher education and better professional training. For both groups the slowing down of expansion of the teaching force will result in far fewer promotion opportunities than their predecessors enjoyed, and if promotion is on the basis of seniority rather than merit there is a particularly serious danger of loss of morale among young teachers. For the authorities a slow-growing teacher force gives rise to many more problems than does an expanding one, particularly in attaining a good distribution of staff between individual schools, school districts and subject specialisms. The distorted age-structure will also cause problems when the teachers come up to retirement age. The pattern of retirements will reflect the earlier uneven rate of recruitment, so that 'stop-go' (and 'go-stop') recruitment policies can produce ripple effects in the teacher force that may still be felt a generation or so later.

1 See Freeman R B *The overeducated American* New York, Academic Press, 1976 Also Williams Peter 'Too many teachers? A comparative study of the planning of teacher supply in Britain and Ghana' in *Comparative education*, Vol 13 No 3 October 1977

The foregoing discussion of the length of lead-times and lag-times in teacher demand and supply underlines the need for the exercise of foresight, and for a long time-horizon, in teacher planning. Whilst long leads and lags offer the planner some measure of certainty and predictability which he may find helpful, they also constitute his greatest challenge. For educational planning involves efforts to shape the future of an education system to respond to the evolving needs and aspirations of society. There is thus a need for flexibility and for finding ways of overcoming or circumventing the constraints which long lead- and lag-times impose.

Teacher planning and manpower planning

Teachers represent a category of skilled manpower, and one can regard the planning of teacher demand and supply as a branch of manpower planning. That part of manpower planning which is known as manpower forecasting has gone somewhat out of fashion since its heyday in the late 1950s and 1960s. At that time part of the popularity of manpower projections derived from the fact that they frequently indicated the need for educational expansion, thus legitimizing from an economic standpoint educational policies which governments also wished to pursue for social and political reasons. Moreover this was for many countries the post-independence period, and there were clear priorities of localizing jobs held by expatriates in the face of an extreme dearth of well-educated nationals of the countries concerned. manpower forecasting was essential for this task. To a large extent this political impetus behind manpower forecasting has now lost its force. This, together with a lack of success with the use of manpower forecasts in practice, and the powerful theoretical criticisms which have been made of it, may account for the declining fortunes of this technique.

In the manpower requirements approach to the planning of education, manpower needs are often derived from the overall national output target, normally laid down in a country's development plan. This target is broken down into separate sectoral targets of output for the different economic sectors (transport, agriculture, industry, banking and commerce, communications etc) and social sectors (housing, medicine, education etc) The target level of output in each sector or industry is then converted —by applying an output-labour ratio—into a manpower requirement, consisting of numbers

of workers in each occupation required to produce the output. The ratio used for the calculation may reflect existing practice in the country's employing establishments, as revealed by manpower surveys, with some adjustment—based on observed trends in labour productivity or on comparisons with technologically advanced industries or countries—to take account of expected future technological developments. In this way one can translate a target level of output (e g so many million tons of steel) into future required stocks of workers in various occupations (metallurgists, blast furnace men, office clerks etc) in each sector. The manpower needs in the different sectors are then totalled to show requirements by occupation for the whole economy in successive future years. These target stock figures must then be converted into required recruitment of new workers during the Plan period. The number of recruits needed has three main components. There will be first an overall growth factor representing the difference between the target numbers and the present numbers in each occupation (as ascertained from employment statistics or from a special manpower survey of the labour force), second, provision for regular attrition due to resignation, retirement death, etc, and third, any allowance for replacement of any existing workers who are regarded as temporary or underqualified.

These skilled manpower requirements are then converted into educational equivalents, signifying the amount and type of education and training that workers in each occupation should have. Finally the total educational requirement has to be turned into an educational plan specifying enrolments in and outputs from the various education or training courses in each year of the Plan period, and the necessary investments of buildings, equipment and teachers have to be programmed and budgeted.

The aim of the manpower requirements approach to educational planning is to ensure that educational output matches the occupational needs of the economy as closely as possible. If successfully applied, it ensures on the one hand that manpower bottlenecks, in the form of an unforeseen lack of trained workers, do not impede development, and that from a manpower point of view all the Plan targets are realizable, and on the other hand that the education system does not over-produce categories of educated or trained personnel unable to obtain employment.

One can readily see how this model can be applied to teacher

planning. The output target' for the education sector is frequently expressed in terms of a desired level of enrolments It is not difficult to apply the established pupil-teacher ratio—education's version of the output-labour ratio—in order to calculate total future teacher requirements, and to convert these into educational requirements by using the current teacher certification rules.

The criticisms that have been made of the manpower requirements approach are too many to enumerate here, but the most formidable ones centre around the fact that it is a technological rather than an economic approach It appears to assume that manpower requirements are technically predetermined by given levels of required output, and that the cost of producing or employing such manpower is largely irrelevant, since there is only one technology and one combination of skills that is appropriate. However the evidence does not confirm this supposed absence of alternative technologies, with labour requirements rigidly predetermined by output targets In fact inter-firm comparison studies have shown that for many products a good deal of substitution is possible between capital and labour and also that it is quite feasible to use different mixes of occupational skill to produce the same product Criticism is also directed at the assumption that occupation-education relationships are fixed, and that there is for most occupations any necessary close correspondence between possession of occupational skills and prior completion of particular courses of study and training The critics point out that in the real world there is more than one route into many occupations (e g salesman, managing director) and that individuals in any case acquire their skills in a variety of ways, including learning on the job Apart from these and other theoretical objections, there are also serious practical and technical problems in defining occupations accurately, estimating current labour-output ratios in each sector, and so on·

How far do these objections to the manpower requirements approach apply in respect of teachers? We may identify a number of respects in which the position of teachers is rather special, suggesting that the objections to manpower planning may apply less strongly in their case

1 The productive system in which the teacher works is technologically rather simple The amount of capital equipment used is rather small, and efforts to substitute capital for teachers on any large scale have been confined to a few isolated experiments

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Teachers combine rather minimally with other occupational groups in doing their work In education there is very little division of function between full professionals and sub-professionals, of the kind encountered in medicine with its large support staff for doctors There is some specialisation of function —e g on a subject basis—between teachers themselves, but this does not operate at all levels of the system. For these reasons the questions of alternative technologies and alternative occupational combinations—despite their immense theoretical significance—assume less practical importance in teacher forecasts than in those for other occupations.

2 Following on from the foregoing, given the relative simplicity of the 'production process' in education and the comparative ease with which pupil-teacher ratios may be calculated, it is in practice not too difficult to agree on appropriate output-labour ratios to be used in making forecasts of requirements This certainly does not mean that the ratios used are necessarily optimal they appear to be arrived at as much by convention as on the basis of any evidence of their efficacy in promoting learning

3 The other pivotal link in manpower requirements calculations— that between occupation and education—is also less challenged in teaching The role of the teacher is widely understood as being largely concerned with the transmission by the teacher to the younger generation of the knowledge and skill which the teacher acquired through his own education. This gives a certain persuasiveness to the argument that a teacher's fitness for his job can appropriately be measured quite largely in terms of his qualifications

4 The role of market forces in the education system is somewhat limited in all countries, even where (as in countries such as the Philippines for example) there is a large private sector In some countries schooling itself is not bought and sold at all, and in consequence the public authorities constitute a monopsonistic buyer of teachers' services Moreover the public authorities also often control teacher supply itself, because they own or finance teachers' colleges, and fix or negotiate teachers' salary levels which then apply to all teachers of a given grade In such situations prices will not be self-adjusting to reflect changed supply-demand relationships, nor could one expect teacher supply and

demand to be very responsive to changes in price. The case for manpower planning is strengthened in these circumstances.

5. A useful by-product of the above situation is that manpower forecasting for the teaching profession starts from a sounder data basis than in the case of most other occupations. With a limited range of employers for teachers, and all school teachers (unlike, say, accountants or personnel managers) employed in just one sector of the economy, employee records should provide reliable information about the stock of manpower currently employed.

6. The relative ease of predicting over the medium and short terms the size of the education system and of educational output should make manpower forecasting for teachers liable to relatively small margins of error on the demand side. This is particularly true of countries with enrolment ratios approaching 100 per cent of the school-age population. But even in other countries short-term projections are based largely on survival rates for pupils already enrolled. However, because both births and school intake rates are notoriously difficult to predict with any accuracy, a very marked reduction in the accuracy of forecasts of educational enrolment will be experienced as one extends the horizon from short- to medium- to long-term forecasting, and very long-range projections of teacher supply and demand (the fifteen years advocated by some manpower forecasters) would probably not prove useful.

The foregoing constitutes a strong case for the application of manpower forecasting techniques in educational planning. What most strikes the observer as surprising is not that so many countries try to make forecasts of teacher requirements, but that, despite the relative simplicity of making manpower forecasts in education, teacher supply planned on this basis has in so many cases been wildly out of line with actual demand.

Any balanced evaluation of the use of manpower forecasting techniques in the education sector itself must pinpoint three main areas of reservation about its usefulness. The first concerns the substitution issue and how far there are knowledge and skills specific to the teaching profession, which can be obtained only through teacher training. If in fact there is very little specific professional content in the teacher's job, then the case for manpower planning is weakened, for such a situation suggests that vacancies can be filled at short notice by untrained teachers. The practice of many

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educational administrations—in the way they staff schools or cal-
culate teacher/pupil-teacher ratios, for example—suggests that they
do regard untrained teachers as in some respects more or less full
substitutes for trained teachers This then calls into question the
whole manpower forecasting approach with its assumption of long
supply lead-times, and fixed output-occupation-qualification-educa-
tion relationships

The second reservation arises from the difficulty of specifying
output in the educational field One approach to educational output
sees school attendance itself, and the experiences of the student in
school, as the output of the system. In this case it might well be
that teacher qualification was of less significance than if the main
alternative definition of output—in terms of educational achievement
by pupils—was adopted If the expected outputs of the education
system could be closely specified, a basis would exist for testing
the manpower forecasting approach hypothesis, namely that there
are extremely limited or nil possibilities of substitution between the
factors of production One could then enquire whether—if com-
bined in a different way—educational inputs (teachers, other per-
sonnel, buildings, equipment, materials, student time and student
abilities etc) could produce the same rise in educational achieve-
ment by students, but at less cost Many recent education production
function studies have been attempting to discover just this It may
be, however, that neither approach to defining output is correct on
its own, and that education in fact has multiple output objectives,
in some cases complementary, and in other cases alternative
According to the objectives specified, required teacher inputs would
vary.

The third reservation, applying to all manpower forecasting but
particularly to teachers, concerns the difference between teacher
qualification and teacher quality Manpower forecasting is not itself
responsible for the confusion of these two terms, but does tend to
direct attention towards formal, measurable attributes of teachers
One should not allow concern with qualifications to obscure the
importance of quality, in terms of character and motivation of
teachers, as well as of their ability levels. It is a fact that in many
countries teachers are better qualified than ever before, but are now
often drawn from lower strata of ability in the population than
previously and are not necessarily superior to their predecessors in
terms of dedication

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Financial Considerations

Both the demand for teachers and the supply will be closely affected by financial considerations.

On the demand side the number of teachers required will of course be the product on the one hand of enrolments, and on the other of the pedagogical arrangements, expressed through the pupil-teacher ratio. But these are not autonomous variables, they are dependent on public policy: and in fact public policy towards levels of school admission and pupil-teacher ratios will largely reflect the level of education costs in relation to the total amount of funds that a country is ready to devote to the educational budget. Additionally the cost to parents of sending their children to school may have an important bearing on enrolment levels and hence on teacher requirements. The distribution of educational costs in the public school system between the public authorities and parents is also largely the outcome of public policy decisions.

Because education is so labour-intensive, and teachers form such a high proportion of the labour force in education, teachers' salaries account for a high percentage of the education budget. The salary bill for a teaching force of any given size (remembering that the size of the teaching force is itself largely determined by the cost of employing it) depends on three factors—the level and gradient of the various salary scales applying to teachers, the distribution of teachers between scales, and the distribution of individuals on each scale.

Generally speaking, at early stages of economic and social development there is a tendency for teachers' salary levels to represent quite a high multiple of national income per head, and for salary differentials paid in respect of additional amounts of education and training to be large. This is a natural reflection of the scarcity of educated people. It is also the case in a period of rapid educational expansion that, where levels of pay reflect qualification, a high proportion of the teachers will initially be on the inferior scales, reflecting their low levels of education and training, and in these fast-expanding systems the majority of teachers will tend to be young and somewhere near the bottom of their pay scales. For these reasons many developing countries have been able to launch programmes of rapid educational development with an initial teacher cost per pupil that is surprisingly low.

But teacher costs per pupil are almost certain to rise rapidly, even if pupil-teacher ratios do not change, and even if teachers' salary scales can be held constant, at least in real terms. The main reason is that as educational development takes place, one witnesses 'qualification inflation' in the shape of better candidates coming forward for teacher-training courses, so that there is a progressive shift of the composition of the teaching force from the lower to the higher salary scales. The trend will be accelerated if unqualified teachers are being replaced by qualified. The effect is particularly strong in those education systems where teacher salaries are differentiated more by level of qualifications than by level of responsibility of the teaching post held. A subsidiary reason for increased teacher costs is the gradual ageing of the teaching force when the period of most rapid education expansion is past its peak. This produces a rise in the salary bill through 'incremental creep', reflecting the fact that the 'average teacher' salary point moves from the lower towards the upper end of the scale [1]

For the above reasons there is a built-in cost escalation in the teachers' salary bill irrespective of any change in the level of enrolments or of salary scales. The education authorities may therefore find themselves in the difficult situation of having to hold down the salary bill by measures which they believe to be injurious to good education. They may for example decide to raise the number of pupils per teacher, thus restricting the volume of teacher employment, or they may deliberately decide to give preference in recruitment to less well educated teacher-candidates because they will be cheaper to employ.

Salaries also influence teacher supply in the more obvious sense of supply of candidates for training. Of the many considerations that influence the career choices of job-seekers, salary levels are probably the most important. The level of the starting salary in teaching in relation to that in other careers is particularly crucial in determining the quality of recruit that can be attracted to teaching. But one should note also that the structure of salary scales and promotion prospects, which together largely determine lifetime earnings, may also have a significant impact on decisions to enter,

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[1] For an example of the working of the factors outlined in this paragraph, see Chesswas, John, *Tanzania factors influencing change in teachers' basic salaries* in *Educational cost analysis in action: case studies for planners—I*, Paris, Unesco, IIEP, 1972

or remain in, the profession. These salary considerations may affect women differently from men. Since women often have fewer alternative job opportunities outside teaching open to them, a system of equal pay for women and men may in fact make teaching *relatively* more attractive to women than to men In other words, a given salary may attract women of an ability higher than that of the men it attracts.

II. Definitions and concepts

Before examining in detail the demand for teachers (Chapter III) and the supply of teachers (Chapter IV) it will be useful to draw attention briefly to some of the ambiguities of definition that can arise, and the crucial distinction between the stock and flow of teachers.

Who counts as a teacher?

In making estimates of the numbers of teachers needed and of those available one should be clear as to who is to be counted as a teacher. Variation between education systems in their practice can make things awkward for international comparative purposes, and Unesco has tried to establish agreed standard definitions At the national level the important thing is that whatever definition is chosen should be clear and consistent between regions and schools, and from one year to the next.

A major ambiguity may concern the question whether 'teachers' will be taken to be all working members of the teaching profession or only those who are actually teaching in the classrooms. The difference between 'teachers' and 'current classroom teachers' could reflect one of the following situations:

1. Some teachers may in fact be on long-term release for in-service training or study leave, or may be seconded/delegated temporarily for other duties, including service abroad (quite important in the case of countries such as Egypt, for example).

2. Teachers who are attached to an institution may be absent for short courses, sick leave, maternity leave, etc.

3 The staff establishment of a school or college may make provision
for teachers to do non-teaching duties for example institutional
administration, research, librarianship or careers counselling Are
the staff holding these posts counted as separate cadres or as
teachers? Unesco's definition of a teacher runs 'a person directly
engaged in instructing a group of pupils (students) Heads of
educational institutions, supervisory and other personnel should
be counted as teachers only when they have regular teaching
functions [1] If teaching personnel who are in service but tempor-
arily not teaching are to be treated as non-members of the
teaching force, rather than as part of current teacher supply, then
more sophisticated data will need to be kept of the flows of
personnel between teaching and non-teaching educational work
If on the other hand they are included among teachers in the
statistics for the teaching force, the estimates of requirements will
have to be inflated, and assumed pupil-teacher ratios deflated to
take account of this fact

At the outset the planner should define the scope of his teacher
planning Is this to embrace all teachers regardless of where they
teach? In such case he will be as concerned with teachers in out-of-
school literacy classes, in a government department, in the training
school of a parastatal enterprise, or in a private school as with
those in public schools Very frequently the term teacher is admin-
istratively defined to include only the last group The narrower
the definition of the educational system for which teacher supply is
being planned, the more necessary it will be to take account of
mobility between teaching jobs in the narrower and wider education
systems

Another potential ambiguity concerns the difference between
individuals who teach and the number of full-time teaching posts
To the extent that teaching may be a part-time occupation there
will be more teachers than teaching posts It is common in some
parts of the world—in many Latin-American countries for example
—for a high proportion of teachers to be recruited on a part-time
basis There are all kinds of possible reasons for this It may be
dictated by the structure of the education system, which relies on
multiple shifts or offers many part-time courses for people in em-
ployment Or the structure and organization of the curriculum may

1 Unesco, *Recommendation concerning the international standardization of educa-
tional statistics,* Paris, 1958

compel the smaller school to employ teachers for specialist subjects —say, music or languages—only on a part-time basis because its total timetable load in these subjects is not enough to warrant employment of a full-time specialist teacher These needs on the part of the system may coincide with the preferences of the would-be teacher, who may wish to combine part-time teaching with another full-time paid job or, in the case of married women, with running their home When aggregating teacher requirements or teacher supply it is important that those teachers not carrying the specified full teaching load be converted for statistical purposes into full-time equivalent teachers Thus a teacher who teaches two days out of five on the school timetable would count as two-fifths of a full-time teacher

Ideally, too, when estimating the supply of teachers it would be useful to find out how many individuals perform more than one teaching job—two part-time jobs for example, or a full-time job in the day and a part-time one in the evening for apparent shortages are often made good in this way However, only a rather sophisticated records system could generate such information

Next in considering supply, we need to know how non-regular members of the teaching force are treated In some countries expatriates still account for a high proportion of teachers at secondary and higher levels Are they included as part of the permanent supply or not? What about other contract and temporary teachers? How are the underqualified and unqualified treated? Generally speaking it seems best to distinguish between those on permanent terms of service and those only temporarily employed The long-term aim of most education ministries will be to have most of their teachers on permanent terms of service Therefore in projecting requirements it is necessary to make provision not only for 'wastage' among the permanent teachers, but also for planned replacement of those only temporarily employed However it does not necessarily follow, as we have already noted, that because a teacher is unqualified or underqualified he is a non-permanent employee

Level of aggregation

The level of aggregation being used in planning for teachers is of the greatest practical importance. The more differentiated the categories of teacher one needs to identify, the greater the complexity

involved, because a disaggregated approach compels one to take account of movement between categories within the teaching force. The major categories in which one may be interested are sex of teacher, age, qualification nationality, teacher's language group subjects he is teaching, and this information should be cross-referenced with school details about level (primary, etc) and management (government local authority/religious/private, etc) While a teacher may be expected not to change nationality (or sex') from one year to the next, a switch between private and public sector schools may be common, and upgrading of qualifications, or a move from the primary to the secondary level, may be part of the accepted way in which teachers make progress in their careers.

A related problem when a high level of differentiation is sought, is that the same teacher may fall in more than one category in a single year. This is particularly obvious in the case of teaching subject classification. For example a secondary school teacher may teach ten periods of mathematics per week, eight of physics and three of religious studies. Under which subject heading(s) should he or she be placed? The choice is either to, classify the teacher only by 'main subject taught' or else to have a highly sophisticated data-recording system which identifies fractions of a full-time teacher for each subject. The same issue arises in relation to teachers' subject qualifications, bearing in mind that it may be deliberate policy to prepare teachers to handle more than one subject in the school curriculum. A similar problem might occur with a public school teacher teaching part-time in a private institution.

The simplest level for which to estimate teacher demand and supply ought to be the primary level because of the lack of specialisation among primary teachers. Specialisation by subject tends to begin in the lower secondary or middle grades. But even at primary level one may well need to distinguish between teachers of different language groups if several media of instruction are used within one country. At secondary and higher levels, on the other hand, the complication of different branches and subject specialisations immediately arises. A countervailing point in many developing countries, however, is that the size of primary-school enrolment is far less within the control of government than that of secondary-school enrolment. This is because at primary level, in countries without effective compulsory attendance, and no fixed age of entry the enrolment ratio largely reflects parental attitudes

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and decisions At secondary level on the other hand a selective system will imply that private demand exceeds the supply of places and ensures that all places on offer in the public system will be taken up In these circumstances the main area of uncertainty at secondary level is the amount of 'overspill' into private secondary schools that must be allowed for

Usually countries plan teacher demand and supply at primary level separately from secondary, because the educational background and training requirement which they demand for primary and secondary levels are quite distinct from one another With the development of education systems and rise in levels of income, these distinctions become more blurred however, in some highly developed, countries the primary schools can recruit university graduate teachers, or even those with higher degrees There may then be little differentiation in the training courses for and qualifications awarded to, primary and secondary teachers, and teacher demand and supply for the two levels may be planned jointly This makes the planning of provision of subject teachers for the secondary level more complex

A country which wants to be in effective control of its teacher situation will clearly want to plan in some detail This involves analysis of the present teaching force and the planning of new supply on a categorised basis Wastage rates often differ greatly between men and women teachers, and between teachers of different specialisations and qualification levels, so that highly aggregated levels of analysis may yield misleading results Some education systems find themselves with an overall surplus of trained teachers yet a severe shortage of mathematics, science and applied subject teachers, and this kind of problem can be tackled only with a disaggregated approach. Of course the finer the detail required, the more elaborate the teacher record system needed Compromises will have to be found between what the planner would ideally like to know, and what data can be collected and analysed at reasonable cost The degree of sophistication of data collection on teachers must be geared to the national situation in each case

Needs, requirements and demand

'Teacher demand' may have several different meanings, which it is important to distinguish First, it may connote 'needs', used rather

loosely in a layman's sense to refer to what is desirable Thus one may say that a school or education system needs more teachers, meaning that for them to have more teachers is a desirable end in itself This should be distinguished from a second more instrumental interpretation of 'demand' as 'requirements' In this case demand for teachers is being defined in manpower planning terminology as the numbers technically necessary to produce a certain specified output from the education system Without teachers of a certain number and description, the output target could not be attained When the official in an education ministry's planning office speaks of teacher demand, his meaning is often a mixture of the layman's and the manpower forecaster's usage He is often referring to the number of teachers needed to service a given number of pupils at some stated pupil-teacher ratio This ratio is often itself an education policy target rather than a technically specified input necessary for the achievement of stated pupil behaviours

Much of the discussion of demand in this volume is in the above rather pragmatic sense There is however a very important third sense in which 'demand' is used Economists understand demand to mean market demand To an economist the 'demand' for teachers is a function of the price of teachers and it signifies the number of teachers that employers are prepared to hire for work at current pay rates The economist draws our attention to the fact that in a world of scarce resources the amount of any commodity or service, such as teaching, that consumers are prepared to buy, depends on its price If teachers' salaries rise relative to other prices in the economy then, other things being equal, fewer will be employed

Teacher shortage and teacher surplus

Arising directly out of the foregoing discussion is the point that a shortage of teachers in a technical sense—i.e, insufficient teachers to enrol all children wanting school places or to staff the schools at what are considered desirable educational standards—could well coincide with a surplus of teachers who cannot get employment because at present wage rates and given the present state of the government's budget nobody can employ them It is equally possible for a situation to exist in which a requirement has been identified by employers, and there are trained persons physically available to fill such vacancies, yet the price which would bring supply and

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demand into equilibrium is not offered The 'shortage' thus reflects an unwillingness by government to offer the market rate for teachers' skills Thus we see that the 'technical' and 'economic' definitions of surplus and shortage will often differ

It is also salutary to remember how very dependent the notion of 'shortage' or 'surplus', in the non-economic sense, is on the assumptions used about acceptable standards 'A 'shortage' may appear quite pronounced if teachers possessing a certain qualification are defined as being unacceptable but non-existent if they are recognised as adequate In the same way a 'surplus' of teachers when the pupil-teacher ratio is 35 1 could be redefined as a 'shortage' if a new target of 25 1 were set

Associated with these different definitions are many alternative ways of measuring the extent of teacher shortage The most straightforward one would be the number of vacancies existing in schools, indicating that the necessary complementary resources in buildings, equipment and materials were available and that lack of teachers was the bottleneck preventing these resources being brought into use However, shortages in this absolute sense are usually prevented from manifesting themselves by employment of unqualified or underqualified teachers Thus alternative measures of teacher shortage might be the number of underqualified teachers employed, or the number of qualified teachers having to teach subjects other than those in which they were trained

Stocks and flows of teachers

In all manpower planning there is a crucial distinction to be made between the *stock* of manpower in service, and *flows* of manpower, which represent additions to the stock and depletions from it through recruitment to and loss from the occupation in question An excess of recruitment (inflow) over loss (outflow) produces increases in the stock, and vice versa

The teaching force represents the current stock of teachers and the future size of the teaching force will vary with changes in the number of pupils and in the pupil-teacher ratio The inflow of teachers—recruitment—consists of new teachers from the teacher-training system, untrained teachers recruited, and former teachers attracted back into the profession from other jobs, from courses, or from various forms of approved absence The outflow (teacher loss)

results from death, retirement, resignation, approved temporary absence and so forth. It is worth noticing, and we will return to this point, that there is more than one source of inflow and more than one type of outflow.

The aim in teacher planning, as in other forms of manpower planning, is to achieve a long-term equilibrium between inflow and outflow such that net teacher flows are equal to the required changes in the level of the teacher force (stock) which enable the stock of teachers to satisfy the projected level of demand. Problems of attaining a balance between teacher demand and supply are discussed in Chapter V.

III. The demand for teachers

In the light of the distinction made at the end of the previous chapter between the *stock* of teachers and the *flow*, teacher demand will be looked at under the same two heads. First the determinants of the required stock of teachers are considered; and the discussion then moves on to consideration of the teacher flows required to maintain, increase or diminish the stock, as found necessary

The required stock of teachers (size of teaching force)

Basically the total size of the teaching force can be represented as the product of two factors,[1] which are (i) the number of learners to be enrolled, and (ii) the teaching technology in use, resulting in a pupil-teacher ratio. Neither of these factors is altogether technically predetermined, each is largely amenable to policy decision, with a range of alternative choices available to the policy-makers. The choices made will reflect the social and cultural values of a society and the strength of different interest groups; and they may also be influenced by the climate of international opinion. They will very much depend on economic factors—the cost of educational inputs and, in particular, of teachers' salaries, the share of the total cost of education that government is to meet from public resources, and the size of the private sector in education; the overall resource

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1 Technically, one ought also to add a third, quantitatively much less important, factor This is the number of places in the teaching force reserved for teachers not on teaching duties in the schools They may be on in-service courses, or delegated to other duties, or perhaps belonging to a force of 'supply teachers' not attached to schools but available to cover for absences

availability, both public and private, for educational purposes; and the assessment made of the contribution that education will make to economic growth.

1. Number of learners to be enrolled

This is the product of three key variables: (i) the ages and length of attendance prescribed; (ii) the population of school-going age; and (iii) the enrolment ratio.

(i) *The ages and length of attendance* are prescribed by a country's school structure and its educational laws and regulations. Practice on those matters varies enormously between countries. Some countries have only three grades at the primary stage (e.g. Nepal) and others have as many as eight (e.g. Malawi); the age of entry in some countries is 5, in others 6, 7 or 8, while many countries in practice permit entry at many different ages; some countries have compulsory school attendance, others not; and the length of compulsory education varies enormously.

(ii) *The population of school-going age* (the population in the age-group designated as corresponding to any particular educational stage) sets a theoretical ceiling on the level of enrolments in that stage. In practice, however, this ceiling may be exceeded if there is under-age or over-age enrolment or if there is much repeating.

(iii) *The enrolment ratio* represents the proportion of the relevant age-group which is actually enrolled in school. It reflects both the intake rate and progression (promotion, repeater and drop-out) rates. These are importantly affected by government policies of two kinds. First, there are policies to determine or influence the demand for education, e.g. whether education is to be made compulsory, whether legal provisions regarding compulsion are actually to be enforced, whether education is to be fee-free for the students or not. It will be clear from this list that demand is not a factor entirely independent of government control. The second set of policies are those on the supply side, affecting the number and type and distribution of places actually made available. Included among these supply policies are the rules ministries of education make about under-age and over-age entry, and about repeating.

However, enrolment ratios reflect at least equally importantly the response of parents and pupils to the opportunities available for education. Factors causing a weak response, i.e. low enrolment, include economic difficulties (direct costs and labour services or

wages foregone through school attendance), cultural and language barriers, problems of physical access, unattractiveness of the education offered, and so on. Because of non-entry and drop-out, net enrolment ratios (proportion of children of 'correct' age attending school) are often below 100 per cent even where sufficient places are available for all to attend school. Conversely however, as is well known,-gross enrolment ratios—which relate all pupils enrolled in a school stage regardless of their age to the size of the population of 'correct' age—may exceed 100 per cent if there is wholesale repeating or under and over-age entry.

Such are the obvious constituents of 'numbers to be enrolled'. It is no easy matter, however, to estimate from available data what future levels of enrolment will be. The task in a developed country with good census and population registration data, and for levels where there is enforced compulsory school attendance, is comparatively straightforward, at least for the short- and medium-term future, for which school entrants may already have been born when the projections are made. But in a developing country with unreliable or incomplete population data, possibly lacking information on the age of existing students, and with attendance at the option of students, it is a far more complex matter involving a whole range of assumptions of doubtful validity

Methods of projecting enrolment cannot be treated in a short volume such as this, and the interested reader is advised to consult the relevant literature.[1] The two basic points to be grasped from our brief discussion here are first that the best possible projections of enrolment are indispensable for teacher forecasting, but secondly since (particularly in developing countries) the forecasts are unlikely to be wholly reliable, for reasons beyond the planner's control, it is desirable to provide for the greatest possible flexibility in arrangements for teacher supply

2 Technology of education and pupil-teacher ratios

The educational technology in use is the key to the output-labour ratio in education (pupil-teacher ratio) and enables one to calculate teacher requirements from pupil enrolments In the present context

1 See especially Unesco, *Methods of projecting school-enrolment in developing countries* (paper no CSR-E-19 in the series 'Current studies and research in statistics', prepared by the Office of Statistics, Division of Statistics on Education, Unesco) Paris, Unesco, 1976

'educational technology' does not refer narrowly to equipment, devices and gadgets: rather it embraces the broad areas of curriculum content, pedagogical method and educational organisation.

Curriculum content defines what is to be taught and learned, and the pattern of experiences devised for the child. *Pedagogical method* indicates how teacher-learner interaction is conducted in the different curriculum areas of knowledge and experience—e.g., through lecture, self-study with or without supervision, radio-listening or TV viewing, group/individual tutorial, discussion group with peers, project work, etc. The pedagogical method is closely interrelated with learning materials, equipment, buildings and physical environment and so on, but we are concerned here only with the teacher demand implications of different pedagogical methods.

It is *educational organisation* which effectively converts curriculum content and pedagogical method for a given number of learners into teacher requirements. There are three key components:
1. Average class size, using 'class' to denote a registered group of pupils constituting a recognised permanent sub-unit of the pupil body.
2. Average number of 'teacher contact periods' required by a class over a complete teaching cycle (often, but not invariably, a week of five days divided into between 30 and 50 instructional periods). The weekly input of teacher periods required will exceed the average length of the pupil working week if classes are subdivided for part of the week for practical subject teaching, for small discussion groups or for remedial teaching. Conversely there may be a 'saving' on teachers during self-study periods or at such times as classes are combined for activities such as films, lectures or games. Obviously the number of weekly teacher contact periods required by each class will depend on the curriculum content and pedagogical method in use. It should be noted that class subdivision or combination may well cause the average size of groups actually taught to differ from the registered class size.
3. Average teaching load per teacher, expressed in number of class-contact periods per week. This covers class-contact periods only, not total work periods of teachers (which would include lesson preparation and marking). It is an average load, bearing in mind that teachers with different levels of experience and qualifications, and of different subjects, may have varying loads

It is at this point, in considering what lies behind the familiar

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pupil-teacher ratio, that we find one of ▬▬ meeting places of the quantitative and qualitative aspects of educational planning, so often claimed to be in conflict with each other. The pupil-teacher ratio is simply a shorthand quantitative expression for something very much more complicated and qualitative; and whilst much the simplest way of calculating teacher requirements is to apply some assumed pupil-teacher ratio to the numbers of pupils to be educated, the educational implications of the assumed pupil-teacher ratios should be understood. Indeed, the pupil-teacher ratio used for teacher requirements forecasting should be based on some 'teaching and learning strategy' which specifies among other things the average size of classes, the total amount of teacher-contact time required by a class over a week, and average teaching loads per teacher per school week

Figure 1 illustrates the way in which relationships between the numbers of pupils and teachers can be expressed by using the shorthand of pupil-teacher ratio, or in a more complex longhand in terms of average size of classes, class-teacher time per week and teacher loads The shorthand and longhand versions express the same thing, so that if one arbitrarily changes the pupil-teacher ratio from 35.1 to 40 1. specifying fewer teachers for the same number of pupils, this will have to be translated in the schools into longer hours for teachers, shorter hours for students, or bigger classes (or a combination of all three) Changes in the pupil-teacher ratio are sometimes assumed to affect only the last of these, class size Indeed class size is popularly often thought to be the same thing as the pupil-teacher ratio, which indeed, particularly in the primary schools of poor countries, it may actually be. The illustrative examples in Table 1 make the difference clearer, however (compare values for s with those for r).

School A in Table 1 represents a typical primary school, in this case having seven classes, each taught as a single group for the whole timetabled week Teachers are expected to teach every period of the week The pupil-teacher ratio and the average class size are identical in this case, so the number of classes is the same as the number of teachers

In *Schools B, C, D* and *E* we change first the average class size *(School B)*. then the number of classes *(School C)*, then the teacher-contact periods per class per week, governing the possibilities of subdividing the class for some periods *(School D)*, and finally the
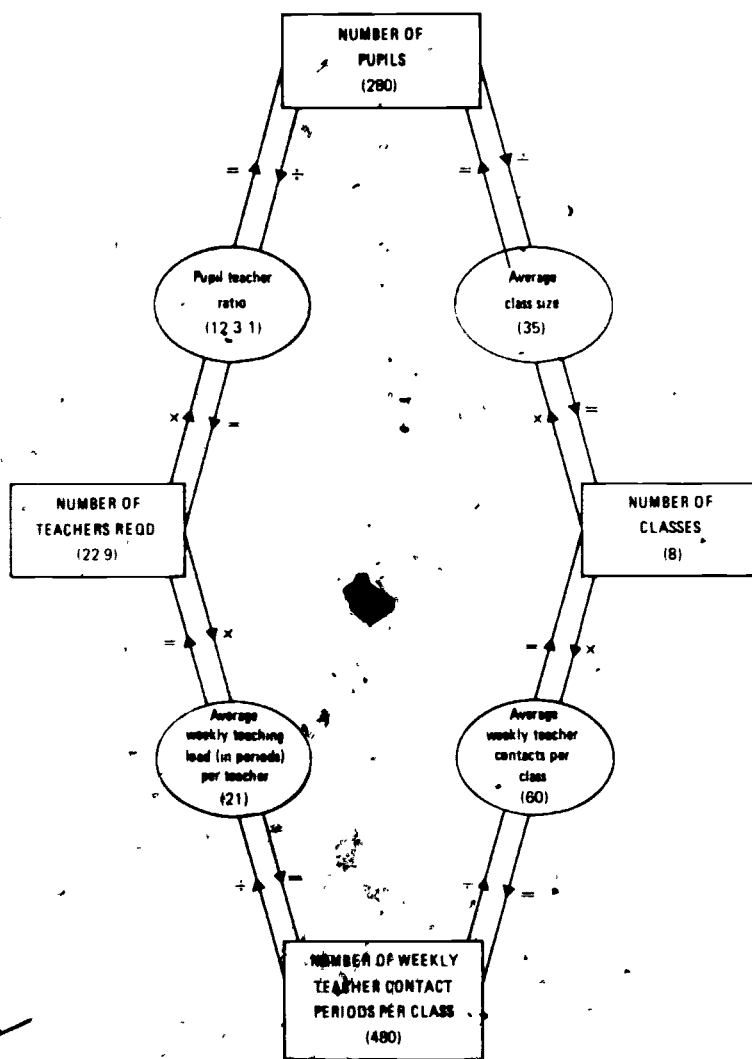
NOTES   1 Figures in brackets in the boxes are illustrative, and are taken from School F in Table 1

        2 Mathematical signs and directional arrows indicate relationships between neighbouring rectangular boxes (via oval boxes)

FIGURE 1   *Constituent elements in the pupil-teacher ratio*

Table 1 The pupil-teacher ratio and its constituent elements

School	No of pupils	Average class size	Number of classes	Av no teacher contact periods per week per class	Total weekly time-tabled teacher contact periods per class	Average weekly teaching load per teacher (periods)	No of teachers required	Pupil-teacher ratio	No of pupils
	(Longhand calculation of teacher requirements)							(Shorthand calculation)	
	P	s	C	k	x	l	T	r	p
A	280	40	7	35(0)	245	35	7	40	280
B	280	35	8	35(0)	280	35	8	35	280
C	280	40	7	45(0)	315	35	9	31 1	280
D	280	40	7	50(15)	350	35	10	28	280
E	280	40	7	35(0)	245	21	11 7	24	280
F	280	35	8	60(15)	480	21	22.9	12 3	280
G	560 { 280 / 280	40	7	20(0)	140 { 280 / 140	40	7	80	560

NOTE Figures in brackets in column 4 denote the additional number of the teacher-class contact periods per week (also included in the total) necessitated by splitting of classes into smaller teaching groups for part of the school week

From the above table it can be seen that in order to calculate teacher requirements in quantitative terms the formula to be used is

either (shortand) $T = \dfrac{P}{r}$ or (longhand) $T = \dfrac{P}{s} \cdot \dfrac{k}{l}$

which may if preferred be re-expressed as $T = C \dfrac{k}{l}$, indicating that total number of teachers required is number of classes (C) mul-

tiplied by teacher-class ratio $\left(\dfrac{k}{l}\right)$

The values to be assigned to P, s, k, l are policy variables which in combination yield a pupil-teacher ratio

length of the teacher's week *(School E)*, so as to observe how each of these factors independently will affect the teacher requirement and in consequence the pupil-teacher ratio *School F* illustrates the effect of changing all these four variables simultaneously

In *School B* the average class size has been lowered, to provide that the 280 pupils are divided into eight classes of 35, thus requiring the provision of one extra teacher.

In *School C* the class size reverts to 40, but the length of the school week is increased from 35 periods to 45. Since the individual teacher load is only seven-ninths of this (35 class contact periods per week), the seven classes now require a total of nine teachers.

In *School D* an extra 15 teacher-contact periods are given to each class, making possible the splitting of classes for sessions in smaller groups for 15 out of the 35 periods in the week. Expressing this in another way, one could say that the teacher allocation per class is increased by 43 per cent, from one teacher per class to 1.43 teachers per class, this makes it possible for pupils to be given instruction in smaller-sized groups or on an individual basis. As an illustration of the variety of teaching methods and styles that could result from the provision of ten teachers for seven standard-sized classes, one could imagine that the first three periods of the school week might be organised as follows

1	4 groups of 40 (standard classes)	160
	plus	
	6 groups of 20 (half classes)	120
	i e ,	
	280 pupils in 10 groups with 10 teachers	
2	1 group of 120 (3 standard classes watching film, supervised by two teachers	120
	plus	
	8 groups of 20 (half classes)	160
	i e ,	
	280 pupils in 9 groups with 10 teachers	
3	7 groups of 40, less 9 pupils withdrawn for remedial work	271
	plus	
	3 groups of 3 pupils withdrawn on rotating basis for remedial work with 1 teacher per group	9
	i e ,	
	280 pupils in 9 groups with 10 teachers	

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Of course, most school systems cannot afford such a generous provision of teachers, and the above examples are illustrative only But the provision of even an extra 10 or 15 per cent of teacher time to each class can make possible a great deal of variation in teaching mode and size of the learning group

In *School E* the difference from *School A* is that the average teacher load has dropped to 21 periods, teachers spending on average 14 periods out of the 35-period week not in front of a class. These 'non-teaching periods may be used for administrative work, marking and preparing, and so on Note that it is the *average* teacher load that has, dropped compared with *School A*—it may be that two or three members of the school staff have mainly administrative duties and teach less than five periods per week, leaving the remaining teachers to bear a heavier load

In *School F* simultaneous changes are made in class size, length of the school week, number of teacher contact periods per class and teacher loads, each variable being altered in the direction which requires additional teacher provision The combined effect of all four changes is to more than triple the teacher requirement in *School F* compared with *School A*, and the pupil-teacher ratio falls proportionately from 40 1 to only 12 3 1

School G represents a rather different situation from any of the others—the double-shift school Here, instead of having a new set of teachers for the afternoon shift (which would effectively amount to the creation of *two* schools in the same buildings), the pupils have 'short-time' schooling and the teachers take both morning and afternoon shortened sessions The size of the teaching groups is no different from *School A*, but the pupil-teacher ratio has soared to 80

The foregoing discussion suggests that the pupil-teacher ratio finally arrived at is the product of choices in different areas of school and curriculum organisation Two important limitations to the planner's freedom of choice should, however, be noted. First, it may well be that the size and number of existing classrooms in schools preclude either large classes on the one hand or sub-division of classes on the other This problem may of course be overcome in new schools by flexible building design. Second, in rural areas there may be constraints imposed on possible class size by the facts of population distribution Although a standard primary class size of 40 may be specified in the school regulations, there will be villages

where only 5 or 10 seven-year-old children present themselves for grade 1 of school each year. To some extent, one may be able to achieve an economically more viable teaching group by combining consecutive grades under one teacher, or by forming one-teacher schools. Rich countries may be able to afford bussing, or boarding schools, in order to build up classes to a viable size. But it is a fact of life, for which the educational planner must be prepared, that actually achieved average pupil-teacher ratios in countries with large and scattered rural populations will almost always be below the norm[1]

This concludes our discussion of the required size of the *stock* of teachers overall. Later, in Chapter VI, we will consider demand for teachers of different subjects and in different regions. It is hoped that the reader has been able to identify the many points at which choices have to be made with regard to the two main determinants of teacher demand, namely, the number of pupils to be educated and the technology of education to be adopted. Certainly choice will be inhibited by scarcity of financial resources, but one must still choose within the resources available between expenditure on education and expenditure on other goods and services, and within education between different technologies. This is why we speak in this volume of 'planning teacher demand' as well as of 'planning teacher supply'

The required flow of teachers

So far teacher demand has been considered from a static point of view in terms of the determinants of the size of the teaching force at any given moment. Our discussion must now switch to a dynamic perspective and consider the flow of teachers over time. In other words it is necessary to examine the factors determining the rate at which teachers should be recruited. There are three main factors of change to be taken into account

1 Growth or decline of the total teacher stock, reflecting change in the size and composition of the school population and/or change

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[1] The problems of forming viable-sized teaching groups are further discussed in Jacques Hallak's recent study *Planning the location of schools: an instrument of educational policy* (Paris, Unesco IIEP, 1977)

in policies affecting the scale of provision of teachers for any given number of pupils We may call this element 'development' demand for teachers

2 Planned change in the nature and composition of the teacher stock itself, for example the deliberate phased replacement of particular categories such as poorly qualified teachers or of expatriates This might be termed 'special replacement' demand

3 Change in the individual composition of the teacher force due to regular causes of attrition such as death, retirement, resignation, etc This element might be designated 'normal replacement' demand

1 Development demand

Changes in the size of the teaching force, arising from growth or decline in enrolments or from changes in the way teachers are used in the education system, constitute development demand Such changes may normally be expected to result in increased demand for teachers, because of population growth and higher participation rates in education, and because countries as they develop hope to improve staffing ratios But there is of course no inherent reason why the changes should be in that direction Quite a number of countries now foresee a smaller teaching force in future, for either demographic or financial reasons

Growth or decline in the numbers to be taught, as was noted on page 40, would be the outcome of changes in one or more of three main variables, as follows (1) The lengthening or shortening of school courses, or a change in the entry or leaving age, will directly affect enrolments (2) The growth or decline of the numbers in the age group is likely to be still more important In many developing countries it is necessary to produce enough extra teachers each year to cater for an additional 3 or 4 per cent more children just to maintain the same enrolment ratio as at present In other areas of the world, such as parts of Western Europe and the United States, on the other hand, the annual number of births has dropped by a quarter or more in the past ten years (3) Rising or falling enrolment ratios are the third major determinant of changes in the numbers to be educated If, for example, a programme of universal primary education is to be announced, ten new universities are to be built, or fee levels are to be reduced, enrolment ratios will rise and the consequences for teacher demand will be profound

Changes in educational practice, affecting future pupil-teacher ratios, will be the other determinant of 'development demand' Such changes may arise from professional conviction about the educational efficacy of some innovation, such as the introduction of new subjects to the curriculum, or of new ways of using teachers For example, a decision to introduce more practical subjects would probably require smaller learning groups, as would additional remedial classes for slower learners, and a higher teacher requirement would result. Conversely, it has sometimes been claimed (though not yet conclusively shown to most people's satisfaction) for the mass media, that they can potentially be substituted for teachers if this were so, a decision to introduce 'schooling by TV' might reduce the number of teachers needed

On the other hand, changes in the pupil-teacher ratio may sometimes simply reflect availability or shortage of money rather than professional judgments There is in any case a constant tension between the educators and economists over whether 'improving the pupil-teacher ratio' is to be interpreted in an educational sense as meaning *fewer* pupils per teacher, or in a cost-reducing sense meaning *more* pupils per teacher (less teacher cost per pupil) If the claims of some researchers that learning achievement is not adversely affected by larger learning groups were validated, the financial advantages of higher pupil-teacher ratios might well carry decisive weight with the policy-makers

2 Special replacement demand

These programmes, arising from the deliberate intentions of the managers of the system, generally aim at replacement of foreign teachers by nationals of the country or of professionally untrained or unqualified teachers by qualified ones. This presupposes that those to be replaced are on temporary terms and can in fact be asked to leave, on being given due notice of termination of their services. In a few instances it may be found that expatriate or unqualified teachers in fact have permanent and pensionable appointments, and that the replacement programme cannot apply to them all For unqualified teachers 'replacement' may mean not summary dismissal, but being given the opportunity to enter teacher-training colleges, or they may be offered part-time in-service courses by correspondence, radio, etc, to upgrade themselves to qualified status while teaching. In some countries this process of gradual 'internal

promotion' of unqualified teachers to qualified status is a recognised feature of the system. It necessitates rather careful accounting of teacher flows, since such teachers may change status without ever leaving the teaching service

In drawing up the replacement programme the crucial question to be decided is the length of the period over which replacement is to take place, this determines the required annual flow of new teachers for this purpose The 'change of gear' involved in starting and completing replacement programmes can dislocate teacher supply facilities unless carefully phased A gradual phasing in and out of replacement will obviously put less strain on the system than an abrupt start and finish

A final point to note on replacement programmes is that the desirability of complete replacement of temporary categories of teacher is not wholly self-evident Quite apart from the possibility that they may be cheaper to employ, temporary teachers are also often more willing to serve in difficult posts 'To keep a pool of temporary appointments in a teaching force (even if the individual incumbents of those temporary posts change) can provide a much needed flexibility in responding to changes in demand arising from unpredictable trends such as population shifts There is much to be said for planning a teacher force with only 85-95 per cent permanent and pensionable employees, rather than aiming for the full 100 per cent

3 *Normal replacement demand*
The stock of teachers is liable to 'natural wastage' Even when there is no development demand and no special replacement programme it will still be necessary to recruit new teachers to maintain and renew the stock Otherwise death, retirement, resignation and illness will take their toll and the number of teachers will decline Teacher wastage is discussed in more detail in the next chapter under the supply of teachers

Indeed, we cannot take the discussion of demand further at this point without first investigating supply, since the requirement of new teachers derives from the gap between 'stock required' and 'stock available' at some future date We shall therefore return to discussion of demand in relation to supply in Chapter VII

Meanwhile this section can be summarised by listing again the elements that go into teacher demand It is useful for policy pur-

poses if calculations of teacher demand can specify separately these components of total demand

Development demand
— changes due to enrolment growth decline resulting from
     — structural change
     — population change
     — change in enrolment ratios
— changes in pupil-teacher ratio resulting from
     — class size change
     — length of school week change
     — teacher periods per class change
     — teacher loads change

Special replacement demand
     — unqualified, underqualified
     — expatriates
     — others

Normal replacement demand
     — death
     — retirement   as further discussed
     — resignation, etc   in Chapter IV.

IV. The supply of teachers

The supply of teachers should be considered under the same two heads as demand, namely stocks and flows. The stock of teachers is another name for the teacher force teacher flows include both outflows (wastage from various causes) and inflows (new recruitment, re-entry).

The stock of teachers ('teacher force)

Basically the supply of teachers at any moment in time consists of the teachers serving in the schools, plus those who are on the payroll but on temporary release for in-service training or approved leave. The total supply of teachers does not necessarily equal the demand, for, schools and colleges may be short-staffed and have vacancies. Alternatively, there may be oversupply, with educational institutions staffed above their norms; the fact that teachers are employed does not necessarily prove a manpower 'need'. It was also noted in the discussion of replacement programmes in Chapter III that the composition of the teaching force may sometimes be regarded as unsatisfactory, so that although supply may quantitatively equal demand in terms of overall numbers, it may be considered unsatisfactory in qualitative terms. This is the case when many unqualified teachers are in service, or when particular areas of the curriculum such as mathematics either have to be dropped through lack of teachers, or are being taught by wholly inadequate staff.

It is essential for sound planning that the educational authorities have at their disposal full information about the size and charac-

teristics of the existing teaching force and its distribution between different types of school. This is so for several reasons. In the first place it makes possible a comparison with demand and allows the adequacy of existing supply, and the efficiency with which it is used and distributed. to be assessed Second, to the extent that the teaching force in fact consists of several sub-populations each with characteristics of its own, future supply—both overall and in sub-categories—can only be projected at all accurately if calculations are made on a disaggregated basis. Third, the annual budget projections and sound financial planning depend on accurate information about the teacher stock All this may seem obvious, but it is nevertheless surprising how poor the state of teachers' records and of statistical data about the teaching force is in a great many countries.

The two main sources of information on the teacher force are the annual (or more frequent) statistical returns from the schools and the personnel records kept on individual teachers The latter should contain data for each teacher on age, sex, educational background and professional qualifications, current status and seniority, record of teaching experience and posts' held. language (where relevant in a multilingual system) and salary So long as this data is kept regularly up to date it can provide both a picture of the current stock of teachers and information on the loss and transfer of teachers, as well as their re-entry If the records are held on a computer such information should be readily accessible In many countries, however, the system of teacher records is not yet sufficiently efficient to rely mainly on them for data about the teacher force, and the school statistical returns are used The disadvantage of these is that they are less detailed. they probably omit data on teachers temporarily absent from the classroom, and they cannot be used to trace the destination of teachers who move from a school between census dates even though they may record their departure. Consequently they yield aggregate data from which only rather crude estimates of the magnitude of teacher flows can be made On the other hand, the school census is a useful source of information on the way in which teachers are being used in schools, their teaching loads and the subjects and levels they are teaching

Of particular significance are the data on age and qualification, making possible the construction of age-qualification profiles of the teaching force The preparation of successive annual profiles can

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provide vital information on the numbers reaching and likely to reach retirement age, on potential promotion blocks resulting from unevenness in past intakes of the teaching force, and on the steady improvement (if such there be) of teacher qualifications

Teacher flows

1 *Outflows*

The bulk of teacher supply in any year consists of teachers retained in service from the previous year The teaching force is like a large orchard, which has been planted over many years and yields its return over a long period It takes many years to mature and cannot be replaced quickly New varieties are continually being planted but the great bulk of production is from mature trees and it is only over a decade or more that the new varieties come to account for the major part of the fruit crop

But, like an orchard the teacher stock is subject to deterioration and loss Teachers wear out' and fall sick, grow older and have to retire They also, like trees, become unproductive and if personnel inventories could record the effectiveness of teachers it would be found that the majority of teachers were in need of 'reconditioning' through in-service courses or retraining, just as an orchard requires spraying, fertiliser or tree surgery Teachers may also—and here the analogy of the orchard no longer holds good— resign

The teaching force is, then, a wasting asset, subject to constant depletion of a number of distinct kinds. The most obvious are

1 *Death* In the case of a rapidly expanding teacher force with a preponderance of young and recently qualified teachers this will not be a major cause of loss, especially as teachers tend to belong to groups of higher socio-economic status, with a higher life expectancy, than the average.

2 *Retirement* The rate of retirement will depend on the profile of the teaching force In a completely stable teaching force, with no other source of wastage, the numbers reaching retirement age would of course equal new annual intake But in systems that have recently been expanding fast, the average age of teachers is much nearer entry age than retirement age, and instead of retirement running at say 3 per cent (implying 100 per cent turn-over over an average career span of 33 years) we may find it

running at only 0 5 or 1 per cent Clearly a short working life, resulting from a late age of graduation from teacher training and an early retirement age, will, other things being equal, produce a higher proportion of annual retirements relative to the size of the teaching force than if graduation is early and retirement late

3. *Resignation* This cause of wastage is the one that perhaps attracts most attention, since it is closely bound up with the issue of the attractiveness of teachers' terms and conditions of service relative to alternative livelihoods Whilst the 'alternative' may normally be another salaried job, it may also involve return to the home village to run a family business or farm, or in some cultures may just as likely be the possibility of reversion by married women to the life of full-time housewife and mother In Ontario, Canada, for example, between 1965 and 1970 about 35 per cent of all withdrawals from the elementary teacher force each year consisted of 'married women retiring to household'[1]

In considering the relative attractiveness of teaching and other jobs, the factors that a teacher is likely to take into account include (i) *conditions of service* these include pay, allowances, pension entitlement, housing arrangements, hours of work, etc, and are undoubtedly the most important consideration for most teachers, (ii) *promotion prospects* it is unfortunately true that even when starting rates of pay for teachers have become competitive with those for other occupations, the ratio of senior to junior posts (of 'generals' to 'privates') tends in many countries to be unfavourable · In highly centralised countries the teaching service, which may be as big as the rest of the public service put together, often has one chief professional post only, whilst twenty other smaller professions may also have one each As important as the promotion structure of the profession are the practical possibilities for teachers to earn promotion through improving their qualifications and professional competence, (iii) *professional support* teaching can be a lonely and isolated job where morale depends very much on the success of the professional leadership in making teachers in the field feel they are doing a job that is

1 Watson Cicely Quazi Saeed and Jones Russ *The elementary teacher a study of the characteristics and supply demand relations of Ontario teachers* Ontario, Department of Educational Planning of the Ontario Institute for Studies in Education 1972

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appreciated, and in giving them opportunities for professional contacts and professional **refreshment**, and (iv) *personnel administration* the sense of fairness and efficiency, particularly over the matter of postings, appointments and promotions, is vital.

4 Dismissal in the case of misconduct, the numbers affected are usually very small

5. *Temporary withdrawals.* These include secondments and approved absence for in-service training, study leave, military or national service, etc

6. *Redesignation within education* This would cover those who are promoted from teaching to supervisory posts of various kinds in education The persons concerned may thus be lost to teaching but not to the education service as a whole

In looking at the complete teaching force it has not been necessary to take account of transfers between segments of the education system, since transfers do not represent loss to the entire stock of teachers But if one is looking at a sub-section of the system—Grade B teachers in primary schools in the Southern Region, for example—loss to that particular sub-population of teachers will include transfers out to private schools, to nursery and secondary schools, to the Northern and Eastern Regions, upgrading to Grade A status, and so on

In a similar way one must distinguish between teacher *turnover* and teacher *wastage* Turnover refers to the annual rate of teachers leaving their particular school post Thus turnover would include not only wastage, but also the lateral movement of teachers between identical posts in different schools This is extremely important from the point of view of stability of school staffing and the sense of permanence that a school community may have From the point of view of the learners, the reduction of turnover, with all the distressing discontinuities it implies, is a matter of priority But it is a phenomenon distinct from wastage, loss or attrition, even though it may have some similar causal roots

It is impossible to generalise about levels of retention and wastage in the education systems of the world The amount of wastage obviously varies very much according to the economic climate, being lower when alternative jobs are scarce. In countries with severe manpower shortages, alternative opportunities for teachers may be good and resignation rates will be heavier, unless checked by bonding arrangements Clearly the age and sex structure of the

teaching force affects the level of wastage quite considerably. Another influential factor is the level of general education of the teacher, with university graduates for example having many more attractive employment opportunities and so being much more mobile than certificate-trained middle-school leavers.

The estimation of future teacher wastage rates is one of the most problematical areas in teacher forecasting even where—and this condition does not apply in all countries—good data exist on the size and causes of wastage in the past Particularly difficult to forecast are the numbers likely to resign to take up other occupations, for this largely reflects relative conditions of service in teaching and other occupations. Similarly unpredictable future changes in the birth rate will not only affect the number of children to be taught, but will also in the short term have their impact on numbers of women withdrawing from teaching for maternity reasons.

2 Inflows

It is just possible to conceive of an education system which was running down at such a pace that the existing teacher stock, continuing from year to year on a depleted basis, constituted a sufficient supply to meet diminishing demand In that case no new recruitment would be necessary. There are many examples of individual educational institutions which have been allowed to 'die' in this way by being forbidden to take on new staff; but probably no complete educational system has operated on such a basis for more than a year or two at a time. Even where the size of the system and of the teaching force is contracting, the annual fall in the required stock of teachers would normally be less than annual teacher wastage, so that some new recruitment would still be necessary And most education systems are not in such a state of contraction, they are experiencing a strong development demand for teachers, stemming from their plans for both expansion and improvement. This, together with replacement needs, gives rise to a large requirement of new recruits.

The main sources of annual new recruitment of teachers are
1 Those returning to the classroom from secondment, leave or in-service training (category 5 wastage on page 56)
2 The teacher-training system (initial training)
3. Recruitment from the domestic labour market of
    (a) former qualified teachers, who have left the service at some

- time past (category 3 and possibly even category 2·wastage on pages 54-55), and
(b) those who have never been qualified teachers.
4 National service arrangements
5 Foreign labour market (sometimes through development assistance agencies)

The first three of these sources (1, 2 and 3a) produce long-term fully qualified recruits who are likely to be offered permanent appointments It is probable that the last three sources (3b, 4 and 5) will yield recruits on a temporary basis

1 *Returners* It is possible to argue that returners are not new recruits at all, since they may have been on the payroll, or have at least been regarded as full members of the teaching service, during their period of absence They are 'returners' to the classroom or school, not to the teaching service as a whole Whilst the number of returners may be balanced by new releases, this does not necessarily follow If a large programme of further training or retraining of teachers is coming to an end, the number of returners could exceed new releases by a wide margin

2 *Initial training* This is normally thought of as the main source of supply to the teaching force The traditional pattern of teacher training has comprised full-time courses of from one to five years, starting immediately after completion of general education In some countries new patterns and structures of initial training are now, being experimented with, and these include arrangements for aspirant teachers to have a period of service in the schools before admission to full-time teacher-training institutions, or sometimes during their course, or for some of the training period to consist of supervised induction on the job As already noted in the discussion of special replacement programmes in Chapter III, it should also be recognised that in many countries the in-service training of unqualified teachers provides an internal promotion route to qualified teacher status For the purpose of what follows, however, it is assumed that initial teacher training takes the form of continuous full-time pre-service courses

The annual flow of newly qualified teachers from the teacher-training system to the schools will depend basically on the capacity of the teacher-training institutions as reckoned by numbers of student places and the rate at which students pass through these

places, as indicated by the average length of course for students (output = capacity/average no. yrs per student).

Table 2 illustrates how, for a given capacity of a teacher-training college or teacher-training system, output will be higher if courses are shorter An institution with only 3-year courses and 360 places can turn out 120 teachers per year (A) The same number of places for a 2-year course will produce 180 teachers annually (B). If two-thirds of the places are given to 3-year courses and one-third to 2-year courses, the potential output will be 140 teachers (C) By reversing the proportions on the two courses, one obtains a rise in

Table 2 Effect of variation of length of course on level of output in teacher training

College	Length course	Enrolments			Total enrolment	Annual output of final yr enrolment
		1st year	2nd year	3d year		
A	3-year	120	120	120	360	120
B	2-year	180	180		360	180
C	3-year	80	80	80	240 } 360	80 } 140
	2-year	60	60	.	120 }	60 }
D	3-year	60	60	60	180 } 360	60 } 150
	2-year	90	90	—	180 }	90 }

Table 3 Calculation of average length of course per student (based on Table 2)

College	Total student years to be spent in the college by presently enrolled students			Total number of students	Average length of course per student (years)
A	360	3	1 080	360	3 0
B	360	2	720	360	2 0
C	240	3	720 } 960	360	2 67
	120	2	240 }		
D	180	3	540 } 900	360	2 5
	180	2	360 }		

output to 150 (D) In other words, output is inversely related to average length of course per student.

The model of teacher-training enrolment shown in Table 2 assumes no wastage in the teacher-training system In fact, however, there may be wastage of a number of kinds. First, the places provided may not be fully utilized because of unwillingness by potential students to enter teaching In this case it is normally the image of the teaching profession itself that is mainly at fault, but recruitment to teacher-training courses can be encouraged by provision of scholarships, and by generous training allowances etc during college courses Second, just as the teacher stock itself is liable to attrition, so are cohorts of teacher trainees At least four types of wastage among enrolled trainees may be encountered and must be allowed for in teacher supply estimates These are 1 Drop-out from the course (output loss), 2 Grade repetition (output delay), 3 Failure on final examinations (output loss), and, 4 Failure to enter teaching (output loss)

A more realistic model therefore might look more like the one shown in Figure 2 From this it seems that from 1,000 teachers admitted in 1980, there will emerge only 850 in 1983 (plus another 29 via repeating and re-sitting of the examination in 1984) This represents a loss of 15 per cent (13 per cent if account is taken of successful repeaters) If the objective is to have 1,000 new teachers (of 1980 vintage) entering service in 1983, then in planning ahead allowance must be made for this loss, at 15 per cent or whatever rate is considered to be more reasonable (were special factors at work encouraging loss in the period 1980-83?) In fact, mathematical calculations show that the intake in 1980 will have to be 1,176 if 1,000 teachers out of the intake are to enter schools in 1983 and if cumulative wastage factors are assumed to operate at a 15 per cent rate (85 per cent $\times$ 1,176 = 1,000)

The fate of failures on the final course examination may have quite an important impact on the level of teacher supply Practice varies from country to country on this Some countries allow teachers to repeat in college (as shown in Figure 2) Others allow them to re-sit the examination in a private capacity at a later date Yet others allow them to enter the teaching force and re-sit the examination at the end of a year's teaching This last course has been the practice in Ghana, for example, where the teacher-training college examination results have been available only after the start

	YEAR I (College intake)	YEAR II	YEAR III	EXAM PASSES (December)	ENTRY TO TEACHING (January)	KEY
1980	1000					
1981	979	979				
1982		950	850	901		
1983			31	29	850	
1984					29	
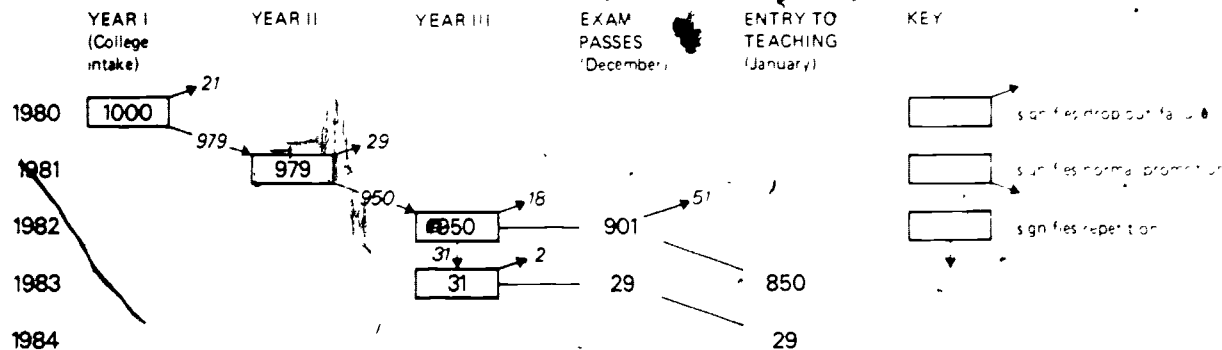
NOTES

1. The above illustration assumes no repetition in the first and second years of the course

2. In this example out of 1,000 initial entrants to college

   50 drop out in Years I and II

   20 fail the examination on first (18) or second (2) attempt

   51 pass the examination on first attempt but fail to enter teaching

   29 pass the examination after repeating and enter teaching

   850 complete course successfully in assigned time and enter teaching
   _____
   1000

FIGURE 2 *Illustration of cohort progression in initial teacher training*

The supply of teachers

of the next academic year hence the appearance in the Ghana
education statistics of a category of teachers labelled as 'awaiting
results', and hence also the need to find room in the Ghanaian
teaching force for all college completers, some of whom in the event
prove not to have passed their examination

3a *Re-entry of qualified teachers* There may be some re-entry
to the profession, particularly at times of teacher shortage, of those
who have resigned or retired In some cultures it is not unusual for
women to resign in order to devote themselves full-time to looking
after their young children This is particularly common in societies
where communal living arrangements are such that relatives and
friends are not normally available to help with child-minding, or
where a network of creches and nurseries has not been developed
As the children grow up and enter school many mothers may re-
apply to resume work full-time or part-time, after an interval of
perhaps ten years from resigning This phenomenon is negligible
in many countries of the world where women may not be inclined
to withdraw from teaching when they start their family But its
potential significance in others is illustrated by the British case
The Department of Education and Science in Britain foresees the
possibility that in the early 1980s re-entrants might account for
10,000-15,000 and new entrants for 20,000 of the annual recruit-
ment of 30,000-35,000 needed to sustain the teaching force in
England and Wales

3b *Recruitment of unqualified personnel* This solution is likely
to be employed on any great scale only at times of extreme supply
shortage Many developing countries have taken on educated but
untrained personnel to man the expansion of their primary and
secondary school systems It is normally regarded as a makeshift
arrangement but has the advantage of cheapness and speed, since
unqualified teachers receive modest reward and are employed as
soon as recruited Often, too, countries find themselves obliged to
drop their insistence on professional qualifications in the case of
scarce subject teachers such as those of mathematics, science and
practical subjects More interest is now being taken in the use of
non-professional teachers, usually on a part-time basis, for help in
making the curriculum 'more practical and relevant Thus some
governments are encouraging the idea that extension officers from
agriculture and health should give instruction in the schools, and
local craftsmen are being used for teaching of practical subjects

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The participation of community leaders and others in cultural and moral instruction is also being welcomed in some countries.

4 *National service arrangements* In situations of great teacher shortage a number of countries have imposed an obligation on more educated young people to teach. as part of their service obligations to the nation This has the advantage of mobilising large numbers quickly, without the necessity to raise teacher remuneration to perhaps unaffordable levels in order to induce people to serve as teachers A service obligation falling on all in a certain category may also be regarded as more equitable than selective forms of manpower allocation Examples of servicemen being used in education include the Iranian Educational Corps, the Nigerian National Youth Service Corps, and the proposed new national service scheme in Botswana [1] A rather different scheme was the obligation imposed under the Ethiopian University Service Scheme whereby students at the University of Addis Ababa spend the fourth year of their course in a form of community service, often teaching in the rural areas Between 1964 and 1974 this Scheme contributed 2.771 teachers to Ethiopia's secondary schools [2]

5 *Foreign labour market* In some countries at certain historical periods a large part of teacher supply has consisted of non-nationals This was true of the beginnings of formal schools in many Asian and African countries which were frequently started by foreign missionaries, and in the later post-independence era the secondary-school systems of many African countries in particular were heavily supported by expatriate teachers serving under bilateral and multi-lateral assistance schemes and volunteer programmes Currently one of the largest flows of foreign teachers is to the Arab countries of the Gulf area from Egypt and other Mediterranean Arab countries Significant numbers of Indian and Pakistani teachers are serving outside their home countries at secondary and tertiary levels The disadvantages of using foreign teachers, from a linguistic. cultural and even possibly from a social and political point of view, are well known, and they may bring with them the particular dis-

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1 Many of these schemes are described in Fussell D and Quarmby, A *Study-service a survey* Ottawa International Development Research Centre 1974
2 Habte, Aklilu, The public service role of the University the Ethiopian University Service a service-study experiment in *Higher education for development in Africa African regional report* New York N Y International Council for Educational Development 1975

advantage of discontinuity However, as a stop-gap enabling coun-
tries to buy time while they develop their own sources of teacher
supply, there is obviously much to commend their ase, if this is
wisely planned The seriousness of many of the problems of phasing
(discussed on pp 15-21) can be mitigated if overseas teachers are
used as a temporary makeweight The devotion many of these
expatriates have brought to their task, and the cultural enrichment
they may have introduced. have been valuable assets to many
countries

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V. Balancing teacher supply and demand

The review in the last two chapters of factors determining demand for and supply of teachers leads on to consideration of adjustment between the two.

Static and dynamic equilibrium

In trying to achieve balance, the planner will strive to ensure not just a balance at one particular period of time in the future, or in other words a static equilibrium, but also the best possible continuing or dynamic equilibrium between supply and demand over successive years. Achievement of dynamic balance creates few problems when the size of the teaching force is projected to change (in most circumstances to grow) at a steady rate, with a more or less constant rate of annual teacher wastage. It is much more problematical, however, when growth of enrolment is not expected to be steady, or when there is a special replacement programme which will be completed by a particular date.

To take the first case, of irregular trends in development demand for teachers, one can think of several sets of circumstances in which such irregular growth might occur. For example, policy decisions to introduce universal primary education, to increase the enrolment ratio in secondary education, to add a grade to one of the stages of the system, or to raise the school leaving age, might all have the effect of unleashing a considerable extra demand for teachers in a particular school year, thus creating a discontinuity in the trend of annual requirements for teachers. A rather sudden acceleration of output might have to be planned.

Conversely there are circumstances in which the opposite requirement might make itself felt, with a need to scale down the rate of teacher output. A comparatively common experience in some of the more developed countries has been a marked fall in the birth rate in the 1960s and 1970s, following a previous rather strong rise Thus after a period of substantial enrolment growth, a phase of decline is now setting in, and the forecasts of teacher requirements have had to be revised abruptly downwards, with painful consequences in terms of teachers without immediate jobs and teacher-training facilities no longer needed Given rather long lead-times for the planning of new teacher-training institutions, it has not been unknown for facilities to be declared redundant almost as soon as they have been opened

The second case, of special replacement programmes of limited size and duration, has been more common in developing countries, many of which have relied on temporary recruits—both unqualified teachers and expatriates—to staff the rapid expansion of enrolment As the shortage has eased and plans to raise domestic trained teacher output have materialized, it has been possible to set target dates for replacement of temporary teachers In such cases the short-term rate of flow to make good the deficit (including replacement of temporary staff) by a certain date will often be higher than the longer-term equilibrium rate of flow required to service steady growth plus attrition requirements To use an analogy, if I want to escort my friend's car along the road at a speed of 60 km per hour, but he is already 1 km ahead of me, I should need to travel for three minutes at 80 km per hour before dropping my speed down to his Without deceleration, my car either crashes into my friend's or rapidly overtakes it In the teacher field the equivalent effect of maintaining the rate of teacher output needed to close the gap, even after the gap is in fact closed, is that one produces teachers surplus to requirements But whilst sudden deceleration is not difficult in a car, in manpower production it involves reducing the rate of output, possibly by closing training institutions, and this is no light undertaking when people's careers and large investments are at stake Table 4 and Figure 3 illustrate a hypothetical situation of this kind where, in the face of trained teacher shortage, the capacity of the teacher-training system has been built up rather rapidly in order to eliminate untrained teachers within five years. Given current projections of demand, recruitment of teachers at

| | Stock of teachers in service | | | Allocation of 2 000 newly trained teachers at end year | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Year	Total supply	Qualified supply	Deficit of qualified teachers (filled by unqualified)	Growth in demand[1] (5°, col 1)	Net wastage of qualified teachers[2] (5°, col 2)	Replacement of unqualified[3]	Annual surplus
1980	10 000	5 000	- 5 000	500	250	1 250	--
1981	10 500	6 750	- 3 750	525	338	1 137	---
1982	11 025	8 412	2 613	551	421	1 028	---
1983	11 576	9 991	- 1 585	579	500	921	---
1984	12 155	11 491	664	608	575	664	153
1985	12 763	12 763	—	638	638	—	724
1986	13 401	13 401	---	670	670	---	660
1987	14 071	14 071	—	704	704	—	592
1988	14 775	14 775	---	738	738	—	524
1989	15 513	15 513	—	776	776	—	448
1990	16 289	16 289	—	814	814	—	372
1991	17 103	17 103	—	855	855	—	290
1992	17 959	17 959	—	898	898	---	204
1993	18 856	18 856	---	943	943	—	114
1994	19 799	19 799	—	990	990	—	20
1995	20 789	20 789	-- 7	(1 039)	(1 039)	--	(78)
			Sub-totals	10 789	10 110	5 000	4 101
			Total		30 000		

1 'Development demand')
2 'Normal replacement demand' } see classification of demand categories in Chapter III
3 'Special replacement demand')

NOTE Assumptions in the above Table
(a) Constant pupil-teacher ratio Therefore teacher supply growth reflects enrolment growth (5 per cent per annum) and surplus of qualified teachers from 1984 onwards cannot be employed
(b) Net wastage of qualified teachers 5 per cent per annum
(c) Output of new teachers constant at 2 000 per annum

Balancing teacher supply and demand
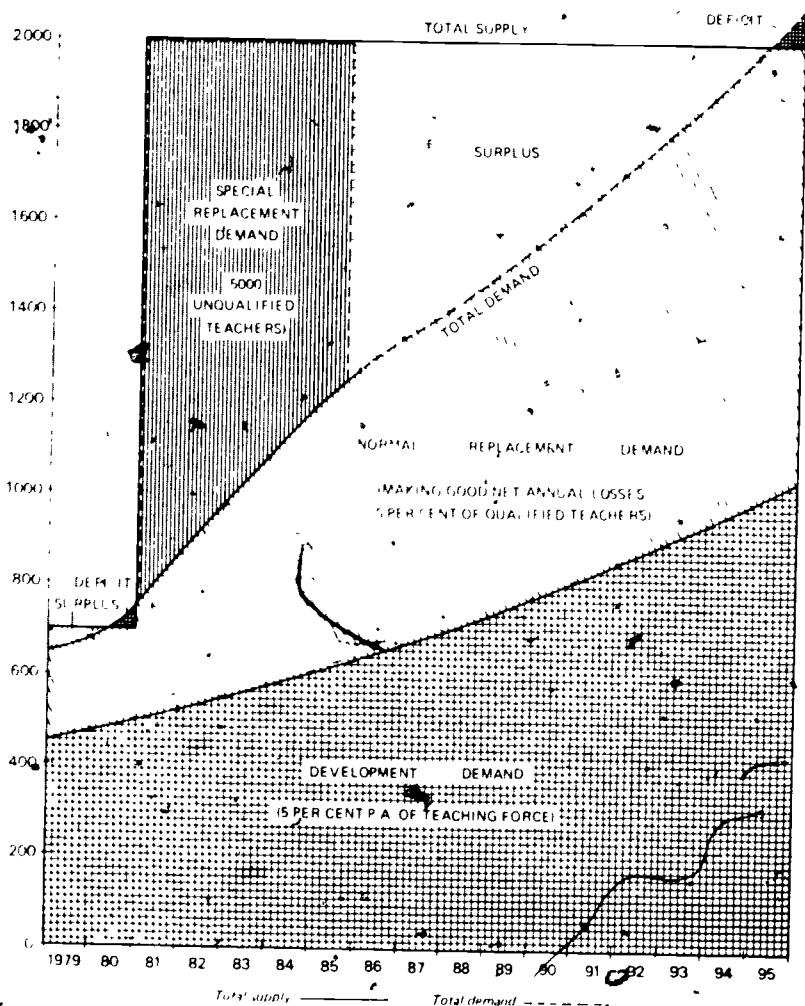
NOTE   For illustrative purposes an extreme case of a crash replacement programme over a five year period has been taken, with teacher supply raised from 700 p a to 2 000 p a in a single year. A much smoother fit between the demand and supply curves could have been achieved by expansion of supply to say 1 800 p a with a longer replacement period.

FIGURE 3   *Problems of keeping teacher supply and demand in balance in face of replacement programmes (graphical representation of data in Table 4)*

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present levels will be excessive over a ten-year period after the untrained teachers are eliminated A better balance would have been struck by expanding teacher supply capacity more gradually and allowing a longer period for the replacement of the untrained.

In recognizing the necessity in certain circumstances of reducing the level of teacher output, some particularly difficult problems arise from the fact of long lead- and lag-times in the supply of trained teachers Thus it may well be necessary to start shutting down teacher-training capacity when there are still visible shortages of teachers in the schools This kind of decision is difficult to explain to the public, and helps to explain why the policy decision to reduce teacher output has sometimes been unduly deferred

Uncertainty and the need for flexibility

In the examples and illustrations given in the previous section, it might be thought that with careful foresight and skilful programming a continuing balance between supply and demand might have been achieved and maintained. After all, major changes inducing significant increases in the demand for education, or the timing of replacement of unqualified teachers, should be under the control of the policy-maker Even a shift in fertility trends, whilst not amenable to his direct control or influence, does afford considerable advance warning before extra or fewer babies grow up to become more or fewer school pupils requiring additional teachers

True as all this is, and whilst there have been many examples of teacher supply/demand imbalance due to faulty planning, it is by no means possible for even the most skilful planner to predict each and every eventuality affecting teacher demand There are too many major occurrences and trends outside the control of governments themselves, let alone the educational planners Who could foresee major natural disasters, the failure of the main export crop? the tripling of oil prices, or the closure of the Suez Canal? Events of this magnitude may seriously weaken the capacity of a government to sustain economic and educational expansion

It is not only the unexpected cataclysmic event in the politico-economic sphere that may upset the forecasts of the educational planner. There may also be less dramatic intensification or reversal of relevant social trends such as migration or fertility, propensity for pupils to enter, stay-on in, or drop out of school, enrolment in

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private schools, examination pass rates and so on. The resignation and re-entry rates of teachers themselves are clearly vital to the planner's equations, but in few countries are the explanations of the present level of wastage or variations in the level over time fully understood A change of one or two percentage points in the wastage rate applied to the teacher stock represents a difference of very many additional teachers required or not required.

One should always recognise that the educational planner's projections depend as significantly on the assumptions used as on calculations The public has the right to expect that the planner's calculations will be computationally correct and that the trend information on which the projections are based will be of as high a quality as can realistically be achieved in the conditions of data availability in the country concerned But in the last resort, even with a valid information base and considerable computational skill, the projections will be no more reliable than the assumptions built into them, and these assumptions largely concern somewhat unpredictable human decisions and behaviour

This suggests that certainty is going to elude the educational planner Rather than attempting to get the demand-supply sums exactly balanced all the time—an impossible dream—he must plan for more than one possible future Therefore, first, his forecasts of teacher demand and supply should not be expressed as single-value figures, but should rather give a range of possible values (e g a low, middle and high projection) according to different stated assumptions Second, constant monitoring and adjustment of the forecasts should be undertaken

Third, it will be wise to build into the teacher supply system itself options which may be exercised speedily in response to changing circumstances To the extent that flexible capacity can be created, one is more likely to avoid excessive shortages or surpluses of teachers What does 'flexible capacity' mean in practical terms? It means providing teachers versatile enough to teach, say both mathematics and chemistry, and able to switch from one to the other full-time, 'polytechnic' colleges with a range of courses and flexible course structures which facilitate student transfers between teacher training and other activities, colleges which can teach either, say, 4-year courses or 2-year courses, or may alternatively be used for in-service training, college buildings which can later if necessary be converted to secondary schools,

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or to other higher-education purposes, flexible ages of teacher retirement, ability to draw on expatriate teachers to fill temporary gaps, and so on.

This involves avoidance of exclusive concentration on lengthy single-purpose specialization in courses, physical facilities or teachers The college which can serve a 'second purpose, the teacher who can switch subjects or teach more than one, the course which can produce a serviceable teacher in one year, should form a significant part of the resources available Where there is the possibility of tapping reserve capacity it will be worth while keeping options open and emergency plans in stock (e g a register of trained teachers who might be willing to return part-time or full-time, contacts with foreign and international supply agencies, a knowledge of buildings potentially available for emergency training purposes) There is no gainsaying that just as in ordinary life insurance costs money, so in manpower planning maintenance of flexibility and room for future manœuvre cost money and some loss of specialist efficiency in the short term Insurance premiums have to be paid Since those responsible for teacher planning can neither accurately foresee nor closely control the future, they will be well advised to devise their own version of the insurance policy

Measures to achieve balance

The educational planner who is faced by actual or anticipated sur-pluses or shortages of teachers should closely examine the factors causing the imbalance and consider ways in which it may be corrected As we saw in Chapters III and IV, there are many different determinants of the level of teacher demand, and many different sources of teacher supply Although adjustment of teacher-training output is one of the most direct ways of closing the gap between supply and demand, it is by no means the only way Many other measures could be contemplated, which include for example the regulation upwards or downwards of school intake and enrolment, changes in the way teachers are deployed in schools and in pupil-teacher ratios, changes in the definition of who is an acceptable teacher, new policies in relation to teacher retention and loss, different policies on replacement of temporary teachers and on attraction back of teachers who have resigned Even as regards teacher training itself, it is not just alterations in the size

of the system that should be considered For as was noted in Chapter IV, different flow rates of teacher output can be obtained from a college system of any given size, by adjustment of the average length of courses

At the end of this chapter, on pages 75-79, a listing of the various areas of possible action on the demand and supply of teachers has been attempted. The reader should understand that the author is not advocating all or any of these measures for adoption in particular countries They are no more than points at which policies *could* be applied in the event of teacher shortage or surplus Choices of particular options would clearly depend on the political, economic and social philosophies and circumstances of each country

Indeed it must be stressed that achievement of demand/supply balance is only one objective of the educational planner This objective should normally be subsidiary to the major goals set by a country for the education system It may make little sense to achieve a teacher demand supply balance at the cost of, say, drastically lowering teacher qualifications and increasing class size if by so doing one imperils the prime goal of enabling pupils to learn effectively and well It should be clear from the above that the demand supply balance may in fact be struck at many different levels of demand, reflecting choices about levels of enrolment and modes of pupil-teacher classroom interaction and that the supply target may be achieved by a wide variety of alternative measures in the areas of teacher training, alternative sources of recruitment, teacher wastage, etc

In making its choices of measures to establish demand/supply balance, any government will naturally have regard amongst other things to political sensitivities In case of teacher shortage, for example, it may be that a cut in school hours for pupils or the introduction of shifts might be unacceptable, whereas an increase in class sizes or employment of teachers of lower qualifications would perhaps excite less public criticism Similarly, in the event of teacher surplus, it may not be possible to close teachers' colleges or lay off teachers career commitments to existing personnel and concern for morale may incline governments to seek softer options —allowing some overstaffing, deliberately choosing to run twenty institutions below capacity instead of twelve at full capacity, and so on

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Because of the need to honour commitments to personnel once employed, and the much greater difficulty of laying off an existing teacher than of hiring a new one, it seems wise consistently to aim somewhat on the low side in planning teacher supply A teacher once employed represents an ongoing financial commitment which must be met year after year Rich countries with too many teachers can find ways of dealing with the problems of absorbing (or laying off with compensation) too many teachers but poor countries cannot afford this luxury It is nearly always possible on the other hand to make good any small shortfalls with temporary teachers having reasonable levels of general education. Moreover, since needs change and knowledge expands and develops, one needs sufficient 'play' in the teacher force to allow the recruitment of new kinds of specialists and to alter the balance of the existing stock If the inflow of new teachers falls to a very low point, redistribution of the teaching force either geographically or in terms of subject and other specialisms becomes difficult and overall management of the teacher force becomes virtually impossible

MEASURES COUNTERACTING TEACHER DEMAND SUPPLY IMBALANCE

AREA OF ACTION	POLICIES·PRACTICES with EFFECT of	
	Reducing teacher SHORTAGE	Reducing teacher SURPLUS
I DEMAND FOR TEACHERS	DEMAND-RESTRAINING MEASURES	DEMAND-BOOSTING MEASURES
1 *Numbers to be educated*		
Education structure		
– Length of stages	Shorten, by eliminating grades	Lengthen, by adding grades
– Age of entry	Raise	Lower
– Age of leaving	Lower	Raise
Supply of schooling and participation rates		
Compulsory education	Reduce length fail to introduce do not enforce law	Extend, introduce, enforce law
– Geographical accessibility of schools	Restrict	Improve (extend school network, transport provision)
– Education charges	Impose school fees	Remove fees and help parents with indirect costs of schooling
Course admission	Control by selection	Open, at option of pupil/parents
Re-entry	Forbid	Allow
– Repeating	Forbid	Allow

— Part-time attendance	Forbid	Allow
— Adult education	Discourage	Encourage

2. Education technology

Average size of class	Increase	Reduce
Weekly input of teacher hours per class	Limit, by providing — fewer options — less practical work — fewer individual tutorials — less remedial work	Increase, and provide — more options — more practical work — more individual supervision — more remedial work
Pupil hours	Reduce relative to teacher hours, e.g by half day schooling, shifts, etc	Lengthen relative to teacher hours, abolish shifts, etc
Teacher hours		
— Teaching load norms per individual teacher	Increase	Reduce
— Overtime (in excess of norm)	Encourage, require	Ban, discourage
Teacher-pupil ratios (staff allocations/establishments for schools)	Reduce, restrain	Increase

3 Non-teaching jobs in education	Limits such posts Close to teachers, discourage teacher applications, encourage other applicants	Expand such posts Open to/reserve for teachers; encourage teacher applications, discourage others

POLICIES PRACTICES with EFFECT of

AREA OF ACTION	Reducing teacher SHORTAGE	Reducing teacher SURPLUS
II SUPPLY OF TEACHERS	SUPPLY-BOOSTING MEASURES	SUPPLY-RESTRAINING MEASURES
1 *Adjust outflows*		
Normal attrition		
(a) Retirement	Postpone, discourage	Encourage early retirement
(b) Resignation	Discourage	Tolerate, encourage
— Pay, allowances	— Increase	— Allow to fall behind other occupations
— Promotion prospects	— Improve	+— Allow to decline
— Bonding	— Introduce, enforce	*— Abolish, fail to enforce
— Rights on transfer (pension rights, contributions)	— Rights forfeited	— Rights retained
— Retention of young mothers in teaching	— Provision of crèches, nursery schools	— No special help
(d) Temporary absence	Restrict, reduce length	Facilitate, easy extension
— Secondments	— Fewer	— More
Study leave	— Less	— More
— In-service training, retraining	— Less	— More,* particularly encourage retraining in shortage subjects/ specialisms

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— National military service	— Exemption for teachers	— No exemption
— Service abroad	— Discourage	— Encourage, with secondment arrangements
Replacement of unqualified expatriates	Cease, slow down	Introduce, accelerate

2. Adjust inflows

Return from secondment	Encourage	Discourage
Initial training		
— Number of places	Build new colleges, expand existing ones	Close colleges, reduce places
— Conversions	Convert other buildings to teacher training	Convert colleges to other purposes
— Course structures	Make colleges monotechnic, teacher training only No transfer opportunities to other courses	Provide teacher training in polytechnic institutions with provision for non-teacher-training courses and transfer possibilities
	Specific teacher training to start from first year of course	Postpone career choices General basic courses leading to alternative vocations
	Teacher training places reserved for initial training	Devote teacher-training places to in-service training as well as initial training

* Note the *double* effect that full-time in-service training or retraining may have in reducing a teacher surplus It *both* removes already trained teachers from the classroom, making room for others to be appointed, *and* at the same time uses up college training places which might otherwise be producing additional newly trained teachers

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POLICIES/PRACTICES with EFFECT of

AREA OF ACTION

	Reducing teacher SHORTAGE	Reducing teacher SURPLUS
Initial Training (Cont)		
— Length of courses	Shorten, develop emergency schemes, 'crash courses'	Lengthen Provide regular courses only
— Part-time training	Introduce, using correspondence, on-the-job training	Abolish/restrict; insist on college attendance
— Training inducements	Offer attractive financial inducements/support to training students	Remove, or limit application of financial support
— Admission standards	Lower	Raise
— College drop-out	Act to reduce	Tolerate
— Graduation exam standard	Lower	Raise
— Re-sitting final examinations	Allow, but out of college	Disallow; or, if allowed, use up college places for these repeaters
— Bonding of graduates to enter teaching	Introduce, enforce	Tolerate new trainees entering other occupations
Re-entrants	Encourage, by inducements, preservation of rights for time away, etc, offer possibility of part-time teaching	Discourage, no favourable treatment on re-entry, no part-time teaching

Unqualified teachers		
— Definition	Remove/reduce professional entry qualifications	Impose/raise professional entry qualifications
— Recruitment policy	Recruit and improve their conditions of service	Cease recruitment, discourage
— Temporary licences to teach	Make freely available	Restrict issue
Military/national service teachers	Use national servicemen for teaching	Do not use national servicemen for teaching
Foreign teachers		
— Recruitment	Facilitate	Impede (refuse work permits)
— Recognition of foreign qualifications	Grant readily	Refuse

VI. Planning for a differentiated teacher force

The discussion of teacher demand and supply has so far been in terms of the total teacher force and overall teacher-pupil ratios. If teachers and teaching jobs were completely undifferentiated, it would be satisfactory to work at this aggregate level, for teachers would be infinitely substitutable for each other In fact, however, teaching jobs are to some extent differentiated and many of them can be performed only by teachers with certain characteristics The market for teachers is not one unified market, but a collection of partially self-contained smaller markets.

For example, in some countries it is not acceptable for girls to be taught by male teachers, and in these circumstances it is obviously necessary to calculate demand and supply separately for males and females Again, if primary education may be taught through different media of instruction, it is important that there be demand/supply balance of teachers in each of the main language groups. In India a Hindi-speaking teacher may not be able to take classes in Bengali, nor in Ethiopia may a Galla teacher be able to take classes in Amharic In other words, what one may very easily find is that an overall demand-supply balance conceals some severe imbalances in respect of particular types of teacher.

Demand and supply of subject teachers

The most obvious way in which the teacher market is subdivided is in terms of teaching subjects at secondary and higher levels. At the higher levels of the education system, knowledge and skills are rather specialised and the individual teacher's expertise is normally

limited to one or two subjects. In many countries an overall surplus of teachers in fact represents an excess of humanities and social science teachers and conceals a serious shortage of mathematics, science and language teachers.

How can demand and supply of teachers be calculated on a subject basis? On the demand side, it is necessary to break down total demand into subject categories. Table 5 illustrates how this may be done, starting from typical curricula in different types of educational institution and their embodiment in a weekly timetable. This enables one to calculate the proportion of total time allocated to each curriculum specialism and so to arrive at the staffing requirements of a model school of standard size. One can use this information in conjunction with plans for future school development to estimate the number of full-time-equivalent teachers needed for each area of the school curriculum. It may well be that the country concerned has different types of secondary school— theoretically inclined academic secondary schools on the one hand and practically biased secondary technical or secondary commercial schools on the other The individual subject components of the curriculum may vary between these types. In such a case government development plans for the different types of secondary school will have to be consulted in order that teacher needs can be reckoned for each These requirements can then be totalled to produce stocks of, say. mathematics and language teachers needed at successive future dates This can be converted into flow projections for the different subject groups of teachers, taking into account the existing and projected supply

Such in broad outline is the approach to be followed in calculating needs for subject teachers, but a number of potential difficulties ought to be mentioned.

(1) A minority of countries have no prescribed timetable with subject allocations applying to all schools. rather it is left to the discretion of each school to decide its school subject offerings (e g., in England and Wales) Even where the curriculum is centrally prescribed, there may be provision for options (languages, practical subjects etc) the choice among which may vary between schools according to their location and facilities. Therefore it will often be necessary to make a survey of actual curricular practice, and the distribution of optional subjects, as the basis for constructing a typical curriculum to be used in forecasting subject teacher needs.

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Table 5 Illustrative calculation of subject-teacher requirements at secondary level

	School timetable (periods per week)						Total 1980 teacher requirements (full-time equivalent teachers)		
	General secondary schools			Technical secondary schools					
		Average school (16 classes)			Average school (24 classes)				
	1	2	3	4	5	6	7	8	9
Teaching subject	Typical individual weekly timetable (no periods)	Total weekly periods taught (col 1 × 16)	Teachers required (32 periods per teacher)	Typical individual weekly timetable (no periods)	Total weekly periods taught (col 4 × 24)	Teachers required (32 periods per teacher)	General secondary schools 180 standard units (col 3 × 180)	Technical secondary schools 14 standard units (col 5 × 14)	All secondary schools (cols 7 + 8)
National language	6	96	3	6	144	4.50	540	63	603
Local language	4	64	2	4	96	3	360	42	402
Foreign language	4	64	2	—	—	—	360	—	360
Religion	2	32	1	2	48	1 50	180	21	201
Social studies	6	96	3	—	—	—	540	—	540
Art	1(½)	24	0 75	—	—	—	135	—	135
Music	1(½)	24	0 75	—	—	—	135	—	135
Mathematics	6	96	3	9	216	6 75	540	94 50	634 50
Sciences	6(2)	128	4	10(6)	384	12	720	168	888
Agriculture	3(2)	20	0 60	8(4)	24	0 75	112 50	10 50	123
or Commerce		10	0 30		96	3	56 25	42	98 25
or Industrial arts		30	0 90		132	4 13	168 75	57 75	226 50
or Home science		20	0 60		36	1 13	112 50	15 75	128 25
Physical education	1	16	0 50	1	24	0 75	90	10 50	100 50
Total	40(5)	720	22 50	40(10)	1 200	37 50	4 050	525	4 575

NOTES
1 Figures in brackets represent teaching periods spent in half-classes (for practical work etc)
2 Although in the case of practical subjects an equal amount of time is allocated to each option, the number of pupils taking the options is assumed to be unequally split among them, hence the 'average school' shows different amounts of time expended on the various options
3 The actual number of schools of different sizes has had to be converted to standard-size-equivalents (cols 7 & 8), in order that the model unit at cols 2 + 3 and 5 + 6 can be used as the basic for calculation In a rapidly expanding system there will be many developing schools of smaller than standard size
4 Average teaching load is assumed in this example to be 32 periods per week

(ii) Even where the subject allocation for individual streams or types of school has been laid down, the distribution of students between the different streams may be uncertain, either because this is left to student choice, or because national targets for the distribution of students cannot be implemented The failure of many countries to achieve their announced intentions to increase the proportion of students in science and technology is well-known In part this is undoubtedly due to difficulties on the supply side, particularly teacher shortage, but in some countries it also reflects student preferences and student performance in science The realism of the plans for distribution of students by subject special-isms needs therefore to be closely examined, and the possibility of shortfalls allowed for

(iii) There is the problem of anticipating curriculum change Sociology or economics or computing would not have appeared on school timetables twenty years ago, whereas now they are not uncommon

(iv) When the aggregate demand for the teaching of a subject is converted into numbers of individual teachers, a number of awkward distributional problems arise. in the case of minority subjects, from the fact that many schools are small and scattered This makes it difficult for such schools to keep a teacher of a minor subject busy on a full-time basis, unless that teacher also handles other subjects Suppose, for example, that music is taught for one period per week (out of 40) to all secondary-school pupils. Using the method of calculation suggested above, a secondary-school system with 300 schools and 6,000 teachers could be reckoned to need 150 full-time teachers (i e one-fortieth) for music However, the average requirement for each school is for half a full-time teacher of music (300 schools, 150 full-time teachers) Yet *each* of the 300 schools needs some teaching of music if the standard curriculum is to be applied uniformly every-where The actual distribution might be on the lines shown in Table 6

In the example given in Table 6 it is clear that the 300 schools need only 150 full-time equivalent teachers of music, but because of the distribution of schools, even allowing for the sharing of part-time teachers, this will require 250 individuals able to teach music (80 full-time, 110 half-time and 60 quarter-time) If in this example part-time employment of teachers was not permitted,

Table 6 Illustrative data on staffing schools in minor subjects

School size	(number)	Total	Music (1 40)	FTE		Total music teachers Individuals
		Average no teachers per school				
Large	(20)	80	2	40	40	
Large-medium	(10)	40	1	10	10	
Small-medium	(130)	20	½	65	$\begin{cases}30\\70\end{cases}$	full load (2 sch)[2] half load
Small	(140)	10	¼	35	$\begin{cases}40\\60\end{cases}$	half load (2 sch)[2] quarter load
Total	(300)	20	½	150	250	

1 FTE   full-time-equivalent teacher
2 These teachers would make up their teaching load by working at two neighbouring schools for
   part of the week each

two-thirds (170 out of 250) of the music teachers would have
to teach other subjects as well.

(v) There may not in all cases be an exact correspondence on
a one-to-one basis between the subject of a teacher's training and
the subject he is teaching in the classroom. There may be no
special option in the teacher-training system corresponding to
some subjects on the school timetable (such as civics, for
example?) and these subjects will naturally have to be taught by
teachers with other specialisms Second, even where appropriate
courses do exist, absolute shortages of trained teachers in some
subject areas force teachers to go outside their specialism. Third,
poor distribution of teachers between schools (due perhaps to
inefficient posting by the authorities) may force a teacher to teach
subjects other than his own because trained teachers of subject
are already on the staff of the institution to which he has
been assigned To meet these problems, some countries have
introduced the requirement that teachers specialise during their
training in more than one subject. This practice helps to meet
the problem of staffing minority subjects (as discussed above),
and provides much needed flexibility in the deployment of

teachers, but it does of course introduce ambiguities into the classification of teachers by subject as a basis for planning teacher supply

(vi) In view of the above, it becomes very important in estimating subject teacher demand and supply to know how teachers are actually used, and the extent to which actual supply (actual teaching assignment) represents potential supply (subjects of training) In a subject-based system the teacher trained in Chinese who is actually being asked to take mathematics classes should properly be treated as an unqualified teacher of mathematics, and represents 'wastage' from the trained cadre of Chinese teachers

Geographical distribution of teachers

A second common type of imbalance is geographical, either inter-regional or inter-school, with some areas and schools being short of teachers overall, or of particular kinds of teachers, even though there may be balance between demand and supply at national level' The local imbalance may arise from purely historical factors—those regions where expansion of education started late, but is now proceeding rapidly, may have fewer well-qualified and experienced teachers If such areas happen also to be physically inaccessible, climatically unattractive or set apart culturally from the rest of the country, such problems may persist over a long period

The long-term solution, bearing in mind that people are generally more willing to work in their own home areas, may be to establish teacher-training facilities locally, and to reserve places in these for local students It may be necessary to do this on a discriminatory basis, positively favouring local students against better-qualified outsiders, for otherwise the places will be taken by students who have no intention of serving in schools in the vicinity of the college after their graduation Very probably it will also be necessary, at least temporarily, to bond students at these colleges to a period of service in the locality, since even students native to the area may be attracted by employment opportunities elsewhere

Even in the longer term, however, such measures may not be sufficient and it may prove necessary to supplement them by policies

designed to channel already trained teachers from popular areas into less advantaged regions and schools This may be done by direction, or by a system of incentives, or by a combination of the two A system of direction may impose on teachers the obligation to serve wherever they are posted, and to transfer between posts only with official authorisation Such systems may create a good deal of resentment unless there are built-in safeguards to limit the time that any individual teacher has to serve in difficult posts and to ensure that the burden of hardship postings is equally shared It also tends to concentrate enormous power in the hands of the bureaucracy responsible for postings connections and influence become important, and accusations of improper influence and corruption may be rife If, alternatively a system of incentives is used, teachers are allowed to apply for posts, but the financial and other rewards attaching to the post influence their choice Designated posts may, for example attract special 'hardship allowances' in cash or amenities in kind such as free housing and transport The rewards may not necessarily be immediate—it may be that service in a designated post can be used as a prerequisite for promotion, or may accelerate one's entitlement to promotion

Whichever system is used, direction or incentive, it is essential for fair distribution of teachers that some staff establishment formula for schools be instituted with built-in mechanisms for ensuring equity between schools The staff establishment formula should specify not only total numbers of teaching posts but also numbers of senior posts (headmaster, deputy headmaster, head of department, etc), for schools of each type and size If pay is attached to these posts rather than to the person of the teacher, this will contribute to the more equitable distribution of teachers Thus even a highly qualified teacher would be able to draw an attractive salary only if he filled a senior post and the availability of unfilled senior posts in remote areas, whilst only junior posts were available in the capital city, would help to draw teachers away from the more popular to the less popular locations If teachers can always draw exactly the same salary in their present post in the town as by moving to the countryside there is little incentive for them to move

Payment for responsibility rather than qualifications also has another, even more important, advantage It helps to limit the pace of cost inflation in education This is because the ratio of senior posts to total posts can be administratively controlled over the long

term much more easily than the proportion of better-educated teachers in the total teaching force

If, however, level of qualification is to be the main criterion used in fixing teacher pay, one approach to ensuring fair teacher distribution is to impose a quota on the proportion of better qualified teachers that any one district or school may employ The authorities might for example stipulate that not more than three-quarters of any school's staff may be trained, or that not more than half the trained teachers are to be university graduates

VII. Making teacher projections in practice

On reaching the end of this volume, many practising planners will perhaps be looking for more specific guidance on the steps they should take to calculate future teacher requirements and teacher supply Although, as stated in the Introduction, this is not a manual on making projections, it may be useful to consider briefly how a practising educational planner might construct a teacher 'balance sheet' highlighting for his country's policy-makers the present and future teacher demand and supply situation, and pointing to some of the policy options available

A purely illustrative calculation for an imaginary country facing a teacher shortage is presented in Table 7 The teacher model it contains is perhaps the simplest one can imagine, being for a uniform type of primary school, having only one category of qualified teacher The basic data requirements to draw up a table of this kind are really very simple The following steps are required in compiling it (the numbers below correspond to the numbered steps in the table)

1 Enrolment projections
The actual level of enrolments will be known either for the current year or, if such recent data are not yet available, probably for last year or the year before last Enrolment in future years is largely predetermined by current enrolments as affected by attrition The two major assumptions that have to be made concern (i) the level of future enrolments at Grade 1—a relatively easy calculation if compulsory education is in force with a fixed age of entry and if repeating is insignificant, but more problematical otherwise, and

(u) changes in wastage rates affecting present enrolments and future intakes Both intake levels and wastage will be subject to a combination of factors, some within government control and subject to policy decisions, and others not The projections must take account of government policies for the future, as already announced or in the pipeline If government has no settled plans or policies, it may be necessary simply to extrapolate past trends

2 *Pupil-teacher ratios*
Once enrolment figures have been projected, the required number of teachers can be calculated by applying a pupil-teacher ratio In Chapter III we saw that the pupil-teacher ratio is a deceptively simple expression of what may be extremely complex practices of teacher use The planner normally has at his disposal, or can easily calculate, the trend of the pupil-teacher ratio in recent years, and may decide simply to project these into the future In so doing he will bear in mind the extent to which urbanisation may make higher pupil-teacher ratios feasible, and conversely the contrary possibility that extending schooling to ever more remote rural communities would have the opposite effect In other words unchanged policies in respect of teacher use will have varying effects on the pupil-teacher ratio according to trends in population density and school sizes The planner will also take into account government policy on teacher use Any intention to alter teacher loads, class sizes or pupil hours will require adjustment of the ratio, and of staffing norms for schools

3 *Total demand*
The total requirement (stock) for teachers at successive future dates can easily be obtained by dividing the figure for pupils per teacher into anticipated future enrolment

4 *Stock of acceptable teachers*
The definition of 'acceptable teacher' will vary from country to country In the example, it is assumed that professionally qualified nationals are all acceptable, but others not in the illustration only 60 per cent of teachers are regarded as acceptable in the base year The national education statistics, or teacher service records, should give an accurate picture of the current teacher force and the numbers who are qualified nationals In future years the stock is calculated by adding net flows to previous stocks

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Table 7. Illustrative projected teacher demand/supply balance sheet 1980-85

Steps in calculation	1980 Actuals	1981	1982	1983 Projections	1984	1985
Demand						
1 Projected enrolments	502 350	542 480	576 120	606 220	633 850	656 540
2 Pupil-teacher ratio[a]	34 15	34	34	34	34	31
3 Total teacher demand (1 ÷ 2)	14 710	15 955	16 945	17 830	18 643	21 017
Supply						
4 *Stock* acceptable teachers (qualified nationals), carried forward from last year col 6)	8 924	9 593	10 205	11 071	12 223	13 516
5 *Flows* during year, modifying last year's stock						
a deduct net wastage since last year (gross wastage net of re-entry)	215	−288	306	−332	367	405
b add new qualified entrants from last year						
i new college output	· 869	880	1 152	· 1 264	1 440	· 1 624
ii in-service qualifiers	15	· 20	· 20	¡ 220	220	220
6 Total teacher supply in current year (4 · 5)	9 593	10 205	11 071	12 223	13 516	14 955
Balance						
7 Size of shortfall (3 − 6)	5 117	5 750	5 874	5 607	5 127	6 062
8 Shortfall covered by						
a teachers in training (1 year probation)	—	—	2 000	2 000	2 000	2 000
b trained teachers not yet qualified	160	180	210	240	270	310
c national servicemen (2-year service)	· ·	·	—	1 000	2 000	2 000
d foreign teachers—qualified	. 38	30	20	10	—	—
e foreign teachers—unqualified	2					
f vacant posts	45	—	· ·	—	—	· ·
g untrained teachers (residual)	4 872	5 540	3 644	2 357	857	1 752
(TOTAL)	(5 117)	(5 750)	(5 874)	(5 607)	(5 127)	(6 062)

Planning teacher demand and supply

This illustrative trial 'balance sheet' for an imaginary country is intended merely to indicate how an educational planner might work out and present his calculations. For any real country the 1980 actuals, ratio of change 1980-85 and all the assumptions concerning pupil-teacher ratios, wastage etc would of course be different. The country chosen suffers from a severe shortage of qualified teachers and wants to replace those without training (8g). In fact this would be achieved in 1985 if it were not for the intention to drop the pupil-teacher ratio from 34 1 to 31 1. The teacher-training system has been expanded to the point where it can take care of growth in enrolment (excluding further changes in pupil-teacher ratios) of about 700-1000 teachers p a, plus expected wastage (rising to 780 teachers p a when all teachers are qualified). The introduction of a probationary year (8a), national service (8e) and 3-year in-service courses for unqualified teachers (5b) will all help to reduce the number of unqualified. The balance sheet is described as 'trial' in so far as it indicates where government's present policies are tending. If the anticipated future situation is not acceptable to government, then new policies which effectively change the assumptions for lines 1, 2, 5 and 8 will have to be introduced

ASSUMPTIONS

Line 1   Based mainly on projection of existing Grades 1-6 enrolment, using existing wastage rates. New intakes assume rising enrolment ratio of seven-year-olds who increase at 2 85% p a

2   Actual number of pupils and teachers 1980 give PTR of 34 15 1. PTR of 34 assumed to continue to 1985 when each complete primary school to receive one extra teaching post

3   Total projected teaching posts, whether filled by qualified or unqualified. 1980 figure is actual teacher stock

4   'Acceptable teachers' assumed to be qualified nationals; 8924 in 1980 col is in fact number of qualified nationals in primary schools in 1979

5   (a)   Net wastage 1979-80 calculated from actuals, and gives 2 4% wastage. For later years 3% assumed. Net wastage = loss from all causes, less all qualified re-entry

(b) (i) College enrolments assumed to expand and 85% of final-year students enter primary schools as qualified teachers, (ii) 300 unqualified teachers to be enrolled from 1980 on 3-year in-service course, of whom 220 p a expected to complete

7   Posts vacant or filled by unqualified teachers

8   a   From 1982 probationary year to be required of would-be entrants to teacher-training courses. If this scheme continues places in teacher force must be permanently reserved for them

b   Approx 10% of college students assumed to fail exams and to serve as unqualified teachers while waiting to re-sit

c   Two-year national service scheme for 1000 entrants p a with completed upper secondary education to be introduced as emergency measure in 1983

d & e   Assumed to be phased out

f   In 1980, 45 vacancies actually exist, but it is assumed good management will avoid this in future

g   This category regarded as residual and major policy aim is to reduce proportion of unqualified teachers

5 (a) Net wastage

In a system with fully comprehensive education statistics it is pos-
sible to construct a complete flow model in respect of the teacher
force of the kind illustrated in Table 8 Unfortunately, however, the
only data on teacher flows that are regularly kept by the authorities
in many countries are those on inflow from initial teacher training.
and even here the data are for college outputs rather than for intake
to the profession (i e there is often no record of the number of
newly trained teachers who actually take up their assignments)
Information should be available from personnel records of the
number who die, retire or resign but unless there is a regular system
for retrieving this information, it may never be analysed and pre-
sented in statistical publications

In consequence in their educational planning very many countries
find themselves having to reduce inflows and outflows to just two
categories, of which one is 'new output from the colleges', while the
other is a catch-all item net wastage 'Net wastage' covers gross
outflows of all kinds less returners and re-entrants The rate of net
wastage is not difficult to calculate if one has reliable data on
successive years' qualified teacher stocks and on new intake of
freshly trained teachers to the system One can then reckon that

Net wastage rate (per cent) =

$$\frac{\text{Last year s stock} \quad \text{new intake} \quad \text{this year s stock}}{\text{Last year s stock}} \times 100$$

Taking figures for 1979 and 1980 from Table 7, and applying the
formula, the net wastage rate would be

$$\frac{8924 \quad 884 \quad 9593}{8924} \times 100 \quad \frac{215}{8924} \times 100 \quad '2 41 \text{ per cent}$$

The net wastage rate projected for years after 1980 in Table 7 is
3 per cent, but there will be countries where appropriate figures
would be much higher than this, and in other cases lower

- It should be noted that projections of net wastage rates are
difficult to make and very liable to error This is because the net
wastage rate is a composite figure covering a variety of different
inflows and outflows To project the net wastage rate without know-
ing the size and direction of change of its constituent parts can
result in seriously wrong forecasts

Table 8 Teacher flows an illustration for qualified public primary system teachers

1979		Type of teacher flow 1979-80	1980	
Stock	Outflow		Inflow	Stock
	16	Death	—	
	46	Retirement	- 1	
		Resignation re-entry		
	101	—other jobs	29	
	71	—marriage domestic	33	
	5	—migration abroad	2	
	177		- 64	
	1	Dismissal	—	
		Moves within education		
	19	—administrative work	—	
	19	—teaching other levels (secondary, nursery, etc)	2	
	2	—private sector teaching	3	
	- 40		+ 5	
		Temporary transfers		
	60	—In-service training and re-training	55	
	22	- study leave	29	
	15	- maternity, sick leave	4	
	1	—secondment other work (incl abroad)	5	
	- 98		93	
		New production		
		—college initial training	841	
		—resitting initial training examination	28	
		—qualifying through up-grading course	15	
			884	
8924	378 (8546)		1047	9593

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5 (b) New qualified entrants

These will be of two kinds those who enter the teaching force as newly qualified teachers, and others—in systems where such provision is made—who as unqualified teachers gain qualified status through courses taken while on the job As already indicated, records of college output are normally available, but not of actual entrants to the teaching service Numbers obtaining qualified status by in-service routes (or by re-sitting college examinations having previously failed) may not be regularly reported For accurate forecasting such information is needed

6 Total teacher supply

This in fact represents total acceptable teachers

7 Shortfall surplus

This represents the excess of demand over the supply of acceptable teachers

8 Measures to cover shortfall surplus

The gap (a shortage in this instance) is in fact the gap between demand and supply of *acceptable* teachers The gap will not generally be allowed to appear as vacant teaching posts usually some temporary stop-gap arrangements, involving the use of substitutes to close the gap, will be entered into The most common are the employment of underqualified national teachers, the use of teachers from abroad, or resort to temporary schemes of national service

If the gap between supply and demand was in fact a surplus of supply, the items against heading no 8 would be a schedule of ways of absorbing the surplus These might include overstaffing of schools above the target teacher-pupil ratio, secondment of teachers to other jobs or other countries and a large pool of teachers on in-service courses, or teacher unemployment

It should be noted that the gap is defined here by reference to a particular target pupil-teacher ratio Teachers who are 'surplus' on the basis of this ratio, might well be making an important educational contribution in the schools through remedial and small group teaching They would be truly 'surplus' in every sense of the term only if their presence added nothing to the educational services being provided in the schools Similarly a 'shortage' shown by reference to the target ratio could be visible in terms of untaught

classes or partially disguised at school level by heavier teaching loads In other words shortage and surplus as defined in relation to targets of output (enrolment) and target pupil-teacher ratios do not reflect the accommodations that may be made in the schools themselves

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ABSTRACT
       Accuracy in student accounting procedures gives
school districts a sound basis of financial and statistical
information for all subsequent decision making. The purposes of this
manual are to describe the student accounting system used in Oregon
and to assist districts in their efforts to maintain accurate records
and report properly to the state Department of Education. Pertinent
Oregon Administrative Rules, Oregon Revised Statutes, and Department
of Education forms are included in this manual. (Author/MLF)

OREGON STUDENT

ACCOUNTING MANUAL

Oregon Department of Education
Salem, Oregon

OREGON STUDENT ACCOUNTING MANUAL

A Handbook on Student Accounting and the Oregon

School Register

February 1981

School Finance Section
Management Services Division

Oregon Department of Education
700 Pringle Parkway SE
Salem, Oregon 97310

Verne A. Duncan
State Superintendent
of Public Instruction

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STATEMENT OF ASSURANCE

Oregon Department of Education

It is the policy of the Oregon Department of Education that no person be subjected to discrimination on the basis of race, national origin, religion, sex, age, handicap, or marital status in any program, service, or activity for which the Oregon Department of Education is responsible. The Department will comply with the requirements of state and federal law concerning nondiscrimination and will strive by its actions to enhance the dignity and worth of all persons.

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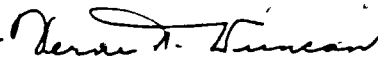
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FOREWORD

Accuracy in student accounting procedures gives school districts a sound basis of financial and statistical information for all subsequent decision-making. The purposes of this Oregon Student Accounting Manual are to describe the student accounting system used in Oregon, and to assist districts in their efforts to maintain accurate records and report properly to the Department of Education.

In January of this year the State Board of Education adopted OAR 581-23-006, "Student Accounting Records and State Reporting." Pertinent Oregon Administrative Rules, Oregon Revised Statutes and Department of Education forms are included in this manual.

For further information contact Lloyd Thomas, School Finance and Data Information Services, 378-3631.

Verne A. Duncan
State Superintendent
of Public Instruction

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INTRODUCTION

Elementary and secondary education nationwide is one of the most important of governmental efforts. It affects a large proportion of the nation's citizens and commands a significant proportion of the nation's financial resources. The system operates through a mix of educational planning and financial support at the federal, state and local levels. Effective planning and the equitable allocation of scarce financial resources require a comprehensive system of student accounting. The accounting system must satisfy educational planning and financial needs at the local, state and federal levels by accurately measuring the number of students being educated.

The purpose of this manual is to improve and clarify the system of student accounting used in Oregon public schools. Full implementation of this system will yield an accurate accounting of students at the local school and program level--which will in turn provide cumulative data at the district, state, and federal levels.

The Student Accounting System in Oregon

Implementation of the student accounting system in Oregon requires an understanding of certain Oregon statutory requirements, as well as those student measures which are used nationwide and in Oregon.

● .Residency for School Purposes (ORS 332.595)

Residency for school purposes is an essential concept in the student accounting system. It determines which school district is responsible for the education of an individual and also is the basis on which the Basic School Support Fund, the Common School Fund, and the County School Fund are distributed to local districts. It is important, therefore, that the residency of each student be legally determined by each district to assure proper distribution of these funds.

Every person in Oregon between the ages of 4 and 18 is resident for school purposes in a school district. In general, individuals are considered to be resident in the district in which their parents or guardians reside. However, legally emancipated individuals are resident in the district in which they reside. Wards of public or private agencies are resident in the district in which they reside provided they live in licensed substitute care facilities certified for a maximum of six children. Those living in substitute care homes certified for seven or more are resident for funding purposes in the district in which their parents or guardians lived at the time the child became a ward of the public agency. Responsibility for determining residency lies with the attending district.

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Student Measures

● Enrollment

Enrollment as a student measure is designed to yield a headcount of the
students who have enrolled in the educational program during the regular
school year. It is always a cumulative figure for the school year. The
headcount is achieved by using a coding system reflecting each student's
status at the time of entry and withdrawal from school. The coding system
used in Oregon is shown below. Properly used, this system will yield an
accurate headcount of students enrolled in school on any given reporting
date in any class, school, district or state, or in the nation.

The Enrollment Code

- Original entries:

  E1--any student who has not previously, during the current year,
      entered any school in the United States,

  E2--any student who has been enrolled during the current school
      year in a school in another state and who has not previously,
      during the current school year, been enrolled in any school
      in Oregon,

- Re-entries:

  R1--students received from another room in the same school,

  R2--students received from a public school in the same school district,

  R3--students received from a public school in the state but outside
      the local school district,

  R4--students re-entering after withdrawal or discharge,

  R5--students received from a nonpublic school in the state,

  R9--students received from a different grade level within the same
      district.

- Withdrawals (or losses):

  W1--students transferred to another room or classroom in the same
      building,

  W2--students transferred to another public school in the same local
      district,

  W3--students transferred to a nonpublic school in the same local
      district,

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1. A full-time equivalency (FTE) is determined for each student each quarter. Students who are scheduled to participate in more than one-half of the full-day program are given an FTE of 1.0. Those students who are scheduled to participate one-half or less of the full-day program are given an FTE of .5. Kindergarten students are given an FTE of 1.0, regardless of the length of their program. The Department will adjust kindergarten students' FTE to reflect the permissible percentage as stated in statute. Students enrolled in dual-credit courses mutually agreed upon between a high school and community college shall be given an FTE based on the time spent in both programs. If the time spent in the combined programs is more than one-half of the full-day program, the student is given an FTE of 1.0. If the time spent is one-half or less, the student is given an FTE of .5. Work-study students may be given an FTE of 1.0 provided the work-study program is supervised by the district. If a student is released for work during school hours and the district assumes no responsibility for the time involved, that time may not be counted as participation in the full-day program for purposes of determining the student's FTE.

2. Total days membership is determined next for each student by adding the student's FTE times days present and the student's FTE times days absent. Each student is counted in membership as either present or absent from the day of enrollment to the day of withdrawal on those days that the instructional unit (school or program) is in session.

3. Total days membership of the instructional unit is then obtained by adding the total days membership of all of the students in the unit.

4. ADM is arrived at by dividing the total days membership of the instructional unit by the total number of days the instructional unit was in session. Only days, or portions thereof, on which the students are under the guidance and direction of teachers are to be counted as days in session.

- Part-time Programs

ADM for part-time programs does not involve assigning each student an FTE. Instead, ADM is determined by the number of hours spent by students in the part-time program. The method used to compute the ADM depends on the type of part-time program as follows:

1: Students through age 20 years who are in continuation evening school (ORS 336.125) and students who are enrolled in nonpublic schools who receive instruction in a public school on a part-time basis have their ADM computed by multiplying the total hours of instruction given all students during the reporting period by .167 and dividing the product by either 55 for the December 31 quarterly report or by 175 for the June 30 annual report.

2. Students who receive home instruction provided by certificated district staff have an ADM computed by dividing the total number of hours of home instruction given (not to exceed five hours per week for a single student) by either 55 for the December 31 quarterly report or by 175 for the June 30 annual report.

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3. Kindergarten students receiving instruction from their parents
    (as defined in OAR 581-23-006(6)(a)(D)) have an ADM computed by
    dividing the total hours of instruction given the parents by dist-
    rict personnel by either 55 for the December 31 quarterly report
    or by 175 for the June 30 annual report. The Department then
    adjusts the hours of instruction given to reflect the permissible
    percentage for kindergarten students as stated in statute.

The ADM of districts offering both full- and part-time programs is the sum of
the ADM's for both programs.

For purposes of distributing the Basic School Support Fund and other selected
state and county funds, the Department of Education computes the resident ADM
of each district (ADMr). In addition, for statistical purposes the Depart-
ment computes the ADM of attending students (ADMa).

Average Daily Attendance

Although Oregon does not distribute funds based on average daily attendance
(ADA), many states do. Since it is the one student measure computed by all
states, it is the principal student measure reported to the federal govern-
ment. It is used by the federal government for allocating a substantial
amount of federal education dollars to the states.

ADA as a student measure indicates the average number of students present
(in actual attendance) on any given day during the reporting period. The
computation of ADA is very similar to that of ADM. The difference between
ADA and ADM is that the ADA computation does not include the students' days
absent, and it is only computed for full-time programs.

ADA is obtained as follows:

1. An FTE is determined for each student in the same manner as when
    computing ADM.

2. Total days attendance for each student is figured by multiplying
    the student's FTE by the student's total days present.

3. Total days attendance of the instructional unit is then obtained
    by adding the total days attendance of all of the students in the
    unit.

4. ADA is arrived at by dividing the total days attendance of the
    instructional unit by the total number of days the instructional
    unit was in session. Only days on which the students are under
    the guidance and direction of teachers are to be counted as days
    in session.

- **State Reporting**

  In order to insure proper student accounting at the state level, the Oregon
  Department of Education requires several reports to be filed by school
  districts on forms provided by the Department. Directions for completing
  the forms are included on the individual forms. If an error is found on a
  previous report, an amended copy should be filed.

  - Pupil Personnel Accounting Report (PPA), Form 3200, is used to report
    enrollment, membership, number of days in session, attendance, length
    of school year, and the number of high school graduates for all full-time
    programs. Separate reports must be filed for grades within a school
    having differing numbers of days in session. Reports are required to be
    filed within ten days of the close of each quarter and the full school year.

  - Resident ADM in Part-time and Special Programs, Form 3201, is used to
    report the ADM of students in continuation evening schools under ORS
    336.125, students in nonpublic schools who attend public school part time,
    students receiving home instruction, and kindergarten students receiving
    instruction from their parents. Reports are required to be filed within
    ten days of the close of the quarter ending December 31 and the year
    ending June 30.

  - Basic School Support Fund Report of Non-Resident Pupils, Form 3202, is used
    to report the ADM of nonresident students for whom the resident district
    pays tuition, students attending an ESD-financed program, dependent children
    attending under provisions of ORS 339.165 through 339.185, and nonresident
    students for whom the resident district does not pay tuition. Reports are
    required to be filed within ten days of the close of the quarter ending
    December 31 and the year ending June 30.

  - Basic School Support Fund Report of Community College Instruction, Form 3207,
    is used to report ADM of students who are simultaneously enrolled in dual-
    credit courses mutually agreed upon between a high school and community
    college. Reports are required within ten days of the close of the quarter
    ending December 31 and the year ending June 30.

  - Estimate of Attendance of Dependent Students From Child-caring Agencies,
    Form 3190, and Final Report of Attendance of Dependent Students From Child-
    Caring Agencies, Form 3193, are used to report the projected and actual
    total days attendance of dependent students from child-caring agencies
    licensed to serve seven or more children. Form 3190 is required to be
    filed by January 31 and Form 3193 by July 15.

  - Preliminary Certification by Child-caring Facility for Dependent Children,
    Form 3191, and Certification by Child-caring Facility for Dependent Child-
    ren, Form 3194, are used to report students who live or have lived in
    child-caring facilities licensed to provide care for seven or more children.
    Form 3191 is required to be filed by January 31 and Form 3194 by July 15.

  - Estimate of Pupil Membership and Operating Expenses in Special Education
    Programs, Form 3196, and Final Report of Pupil Membership and Operating
    Expenses in Special Education Programs, Form 3198, are used to report the
    total days of instruction, cost, and membership by county of residency for
    special education programs. Form 3196 is required to be filed by February 1
    and Form 3198 by July 15.

-.District Report of Resident Enrollment by County Lines, Forms 3203 and 3205, are used to report the resident enrollment of students who are legal residents of the reporting district according to the county of legal residency of each student. Form 3203 is required to be filed for the quarter ending December 31 and is due January 15, and Form 3205 is required for the year ending June 30 and is due July 15.

General Information

The Oregon School Register is designed to comply with Oregon statutes and administrative rules governing school attendance reporting. It is intended for use by elementary and secondary schools to assist in the completion of the Pupil Personnel Accounting Report (Form 3200). Each school is required to maintain student attendance and membership records in this register or in an alternate system which utilizes standard definitions and yields equivalent data.

During the first week of school it may be desirable to maintain a temporary record in order to provide for late entrants and pre-enrolled students who do not report. This information should be transferred to the school register at the beginning of the second week. Names of pre-enrolled students who do not actually enroll should not appear in the permanent register.

The school register is a permanent record and should be kept in ink. At the end of the school year, the completed register (or its equivalent if an alternative system is used) should be submitted to the district office for permanent retention.

Code and Key

In completing the register, the codes listed on pages 4-5 of this manual (and on sheet 4 of the register) are to be used.

R9 and W9 are to be used only if a school district adopts a year-round schedule incorporating a track-system in which one or more tracks are scheduled to cross school years (July 1 through June 30). The use of the R9 and W9 codes shall be limited to those students who change grades within a track during the school year.

For other entries, use the following key:

H   legal school holiday. Record only those days that are paid legal holidays between opening day and closing day of school. (Examples-- Thanksgiving, Memorial Day, Labor Day, New Year's Day.)

h   local school holiday. Those days when school is not in session for emergency or other reasons and the closure was approved by the local board.

(h)   approved day closed for emergency. If the closure was subsequently approved by the Oregon Department of Education, the 'h' recorded in the Register is encircled to indicate such approval. (Examples-- storm closed days, other emergency or local holidays.)

I   approved inservice day. (Examples--County or District Institute Days.)

V   unpaid vacation day. (Examples--Spring vacation, Christmas vacation.)

X   miscellaneous day other than inservice day on which the teacher is required to be present but the pupils are not in session. (Examples-- teacher work days, teacher-parent conference days.)

0   a day in a school week, not included in a given report quarter

1   absent a.m.

-    absent p.m.

+   absent all day

o   tardy (late)

Instructions for Recording Student Data by Columns

Column 1   List alphabetically and by grade the last name of each student
            followed by the first name and middle name or initial (e.g.,
            Smith, John A.). If more than one grade is recorded on a page,
            skip a few lines between grades. To facilitate completion of
            state attendance reports, nonresident students should be listed
            separately at the end of each grade.

Column 2   Record the grade placement at the time of enrollment for each
            student.

Columns 3 and 4   Indicate the sex of each student by a check
                         mark in the appropriate column.

Columns 5, 6 and 7   Record the month, day and year of each stu-
                         dent's birth as follows: 4:27:70 (Apr. 27, 1970).

Columns 8 through 12   Record the entry or re-entry status for each
                         student by checking the appropriate column.

Column 13   If a student withdraws at any time during the
                         school year, put a check mark in this column.
                         At the end of each quarter, summarize columns 8
                         through 13 in the appropriate spaces at the bot-
                         tom of the page. The column totals for each
                         quarter are cumulative and must correspond to
                         the column totals of Section 1 of Form 3200.

Columns 14 and 15   For each nonresident student indicate the
                         home district number, county/ESD and state.

Column 16   Indicate the status of all nonresident students
                         using the appropriate code:

                         NR1--students having tuition paid by parents
                              or other individuals

                         NR2--students having tuition paid by their
                              resident district

                         NR3--students having tuition paid from outside
                              the state

                         NR4--not classified above

.17

12

The spaces between columns 16 and 17 are used for recording weekly attendance for each quarter. Starting with the last space in the quarter, enter the school week number of the last week in that quarter and its beginning date (as shown on the Oregon Department of Education School Calendar). See example on page 15. Number back to the week in which the quarter begins or, for the first quarter, when the school session begins. Spaces to the left of the first week should be blocked out. When the end of a quarter falls on any day except Friday, Saturday or Sunday, the last week of that quarter and the first week of the next quarter will have the same number. In such cases, those days in the week not included in the quarter should be marked with an "0" and should not be counted as days within the quarter.

Daily attendance data should be recorded as follows: entries for Monday should be made in the upper left corner of the block; for Tuesday, upper right corner; for Wednesday, the middle; for Thursday, lower left corner; and for Friday, lower right corner. (See example.)

```
+----------+
| M      T |
|    W     |
| Th     F |
+----------+
```

When a student enrolls, enter an E or R with the appropriate code number in that portion of the weekly attendance block that reflects the date of entry. No entry is made to record days present. The enrollment code may be found under "Student Measures," page 4 of this manual; the key to other entries is on page 11. (See also Sample Register, page 15.)

When a student withdraws, place a "W" with the appropriate code number in that portion of the weekly attendance block that reflects the school day following the last day of attendance. With the exception of W9, the day marked "W" should not be counted as a membership day. For W9, the entry should be made on the last day of attendance and should be counted as a membership day.

Column 17   A full-time equivalency (FTE) for each student must be determined each quarter and entered in column 17. The FTE reflects the portion of the student's participation in the full-day program. Students scheduled to attend school for more than one-half of the full-day program are given an FTE of 1.0. Students scheduled to attend school for one-half or less of the full-day program are given an FTE of .5. (See "Average Daily Membership," page 5 of this manual, for further information.)

Columns 18-23   The total quarterly membership of each student should be summarized at the end of the quarter. Record membership of resident students in columns 18 through 20 and membership of nonresident students in columns 21 through 23. To determine days present (columns 18 and 21), count the number of days the student was present and multiply by the student's FTE, rounding to the nearest tenth. To determine days absent (columns 19 and 22), count the number of days the student was absent

and multiply by the student's FTE, rounding to the nearest tenth. To determine days of membership (columns 20 and 23), add days present to days absent (column 18 plus column 19 = column 20, and column 21 plus column 22 = column 23). Record column totals at the bottom of the page.

Columns 24 through 29   At the end of each school year each student's member-ship record should be summarized by totaling the data for the four quarterly periods. Record column totals at the bottom of the page and check by adding the column totals of the four quarters.

Column ⬤   Indicate whether the student is promoted or retained at the end of the school year.

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Sample School Register

FIRST REPORT QUARTER—JULY 1st TO SEPT 30th							TOTAL QUARTERLY ATTENDANCE					
SCHOOL WEEK NUMBER							RESIDENT			NON RESIDENT		
			10	11	12	13	14	FTE	P	A	M	P	A	M
			9-1	9-8	9-15	9-22	9-29	17	18	19	20	21	22	23
1			E1		+ +			1.0	20	2	22			
2			E1					.5	11	0	11			
3			E1			W3		1.0				13	0	13
4						R2		.5	2.5	0	2.5			
5														
6														

335	2	35.5	13	0	13

TOTALS

Form 581 3252   3 81

School opened Monday, September 1; end of quarter Tuesday, September 30.

Student 1:   Enrolled on first day of school, September 1. Absent two days, September 17 and 18. FTE = 1.0

Student 2:   Enrolled on first day of school, September 1. No absences. FTE = .5.

Student 3:   Enrolled on first day of school, September 1. No absences. Withdrew September 18. Transferred to nonpublic school. FTE = 1.0. Nonresident student.

Student 4:   Entered from another school in the district September 24. FTE = .5.

OREGON SCHOOL REGISTER

AND

RECORD BOOK

Prepared by the
Oregon Department of Education

School _____   District No _____ County _____
          (Name)

Address _____
          (City or Town)   (Street)

RECORD FOR THE SCHOOL YEAR 19   - 19

This register is the property of the school district   It becomes an important official record of the district and for this reason it should be kept neatly and accurately   Directions should be carefully followed and all information requested should be supplied

Facts regarding the attendance of students at school are of basic importance in every state   In order that these facts may be properly and uniformly recorded and may be comparable, the Oregon Department of Education, in cooperation with educational authorities in other states and with the United States Department of Education, has developed this Register of Attendance

This register is provided by the state in order that the facts regarding attendance may be uniformly recorded by identical procedures. The instructions are intended to be complete and self-explanatory   Please study them carefully and if any point is not clear do not hesitate to consult your principal, superintendent, or the Oregon Department of Education.

Accurate reports based on a properly kept register are of the greatest importance   They constitute the foundation for an understanding of the needs of the schools and the basis for financial support.

Form 581-3252 (rev. 3/81)

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FIRST REPORT QUARTER—JULY 1st TO SEPT 30th								TOTAL QUARTERLY ATTENDANCE					
								RESIDENT			NON RESIDENT		
SCHOOL WEEK NUMBER							FTE	P	A	M		A	M
							17	18	19	20	21	22	23
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													

TOTALS

Form 581 3252 (rev 3/81)

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SECOND REPORT QUARTER – OCTOBER 1st TO DECEMBER 31st

SCHOOL WEEK NUMBER

														1
														2
														3
														4
														5
														6
														7
														8
														9
														10
														11
														12
														13
														14
														15
														16
														17
														18
														19
														20
														21
														22
														23
														24
														25

FTE		TOTAL QUARTERLY ATTENDANCE					
		RESIDENT			NON-RESIDENT		
		P	A	M	P	A	M
17		18	19	20	21	22	23
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
	11						
	12						
	13						
	14						
	15						
	16						
	17						
	18						
	19						
	20						
	21						
	22						
	23						
	24						
	25						

TOTALS

DIVISION OF WEEKLY
ATTENDANCE SQUARE

M		T
	W	
TH		F

H   legal school holiday
h   local school holiday
ⓗ   approved day closed because of emergency
     conditions
I   approved inservice day
V   unpaid vacation day
X   miscellaneous day
0   a day in a school week not included in a
     given report quarter
| absent a m
     absent p m
+   absent all day
o   tardy (late)

25

FTE		TOTAL QUARTERLY ATTENDANCE					
		RESIDENT			NON RESIDENT		
		P	A	M	P	A	M
17 -		18	19	20	21	22	23
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
	11						
	12						
	13						
	14						
	15						
	16						
	17						
	18						
	19						
	20						
	21						
	22						
	23						
	24						
	25						

TOTALS

ENROLLMENT ENTRIES

E1 ORIGINAL ENTRY—NOT PREVIOUSLY ENROLLED DURING CURRENT SCHOOL YEAR IN U S

E2 ORIGINAL ENTRY—PREVIOUSLY EN ROLLED DURING CURRENT SCHOOL YEAR IN STATE OTHER THAN OREGON

E (TOTAL) ADD E1 AND E2

R1 RECEIVED FROM ANOTHER ROOM, SAME SCHOOL

R2 RECEIVED FROM ANOTHER PUBLIC SCHOOL, SAME DISTRICT

R3 RECEIVED FROM PUBLIC SCHOOL IN STATE BUT OUTSIDE LOCAL DISTRICT

R4 RE ENTERING AFTER WITHDRAWAL OR DISCHARGE

R5 RECEIVED FROM NON PUBLIC SCHOOL IN STATE

R9 RECEIVED FROM DIFFERENT GRADE SAME DISTRICT

R (TOTAL) ADD R1 THROUGH R9

W1 TRANSFERRED TO ANOTHER CLASS ROOM, SAME BUILDING

W2 TRANSFERRED TO ANOTHER PUBLIC SCHOOL, SAME DISTRICT

W3 TRANSFERRED TO NON PUBLIC SCH OOL, SAME DISTRICT

W4 MOVED OUT OF LOCAL DISTRICT OR STATE

W5 QUIT SCHOOL BEYOND COMPULSORY SCHOOL AGE

W6 ISSUED WORK PERMIT

W7 GRADUATED

W8 WITHDRAWN OTHER REASONS

W9 TRANSFERRED DIFFERENT GRADE SAME DISTRICT

W (TOTAL) ADD W1 THROUGH W9

27

FOURTH REPORT QUARTER—APRIL 1st TO JUNE 30th														
SCHOOL WEEK NUMBER														
														1
														2
														3
														4
														5
														6
														7
														8
														9
														10
														11
														12
														13
														14
														15
														16
														17
														18
														19
														20
														21
														22
														23
														24
														25

FTE		TOTAL QUARTERLY ATTENDANCE								TOTAL ANNUAL ATTENDANCE						PROMOTED OR RETAINED
		RESIDENT			NON RESIDENT					RESIDENT			NON RESIDENT			
		P	A	M	P	A	M			P	A	M	P	A	M	
17		18	19	20	21	22	23			24	25	26	27	28	29	30
	2								1							
	3								2							
	4								3							
									4							
	6								5							
	r								6							
	8								7							
	9								8							
	10								9							
	11								10							
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	22								21							
	23								22							
	24								23							
	25								24							
									25							

TOTALS

TOTALS

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DATA CONCERNING STUDENTS

STUDENT'S NAME	GRADE	SEX		DATE OF BIRTH			E R W STATUS						IF NON RESIDENT GIVE SCHOOL DISTRICT COUNTY STATE			CODE
		F	M	MONTH	DAY	YEAR	E1	E2	R3	R5	R1 R2 R4	ALL W	DIST NO	COUNTY	STATE	
	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16
1																
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FIRST QTR TOTALS

SECOND QTR TOTALS

THIRD QTR TOTALS

FOURTH QTR TOTALS

30

Oregon Administrative Rule 581-23-006
Student Accounting Records and State Reporting

Statutory Authority: ORS 326.310; 327.125

581-23-006 Student Accounting Records and State Reporting

(1) The following definitions and abbreviations apply to this rule:
  (a) "ADA" means average daily attendance:
  (b) "ADM" means average daily membership;
  (c) "Day in session" means a scheduled day of instruction during which students are under the guidance and direction of teachers;
  (d) "Department" means the Oregon Department of Education;
  (e) "Full school day" means the length of time a school or program is normally in session during the day, as determined by the local school board under provisions of ORS 332.075(2):
  (f) "FTE" means full-time equivalency:
  (g) "Instructional unit" means a school or other organizational arrangement which provides instruction, of a given type or types;
  (h) "Regular school program" means that which is offered to comply with the standards adopted by the State Board of Education and compulsory school attendance law. This does not include summer school, adult education, or prekindergarten programs;
  (i) "Roll" means the list of students who have enrolled in the district during the current school year; and
  (j) "Superintendent" means the State Superintendent of Public Instruction.

(2) Instructions pertaining to the maintenance of student accounting records and state reporting shall be published by the Department.

(3) Each school district shall:
  (a) Maintain accounting records of student enrollment, attendance, membership, resident/nonresident status, and such other student information as may be required, for each student enrolled in regular school programs operating during the regular school year. Such records shall utilize uniform definitions of each student measure as stated in this rule:
  (b) Designate the residency for school purposes, subject to the provisions of ORS 332.595 and 339.135, of each student enrolled in the district;
  (c) Report enrollment, attendance, membership, and such other information as the Superintendent may require, within 10 days of the end of each reporting period on forms provided by the Department. Reporting periods shall end September 30, December 31, March 31, and June 30; and
  (d) Utilize the following enrollment codes for recording entry, re-entry, and withdrawal of students during the regular school year.

(A) Original entries:
  (i) E1--any student who has not previously, during the current year, entered any school in the United States,
  (ii) E2--any student who has been enrolled during the current school year in a school in another state and who has not previously, during the current school year, been enrolled in any school in Oregon.

(B) Re-entries:
  (i) R1--students received from another room in the same school;
  (ii) R2--students received from a public school in the same school district,
  (iii) R3--students received from a public school in the state but outside the local school district,
  (iv) R4--students re-entering after withdrawal or discharge,
  (v) R5--students received from a nonpublic school in the state.

(C) Withdrawals (or losses):
  (i) W1--students transferred to another room or classroom in the same building,
  (ii) W2--students transferred to another public school in the same local district,
  (iii) W3--students transferred to a nonpublic school in the same local district,
  (iv) W4--students moved out of the local school district or state,
  (v) W5--students quitting school after passing compulsory attendance age,
  (iv) W6--students issued work permits,
  (vii) W7--students graduated,
  (viii) W8--students withdrawn because of other reasons,
  (ix) W --the total of W1 through W8.

(D) If a school district adopts a year-round schedule incorporating a track system in which one or more tracks are scheduled to cross school years (July 1 through June 30) the enrollment code shall be expanded to include:
  (i) R9--students received from a different grade level within the same district,
  (ii) W9--students transferred to a different grade level within the same district.

The use of the R9 and W9 codes shall be limited to those students who change grades within a track during the school year. A W9 entry shall be counted as a day of membership.

(4) Students shall be entered and withdrawn from the district roll as follows:

(a) A student shall be entered on the district roll utilizing the appropriate E or R code on the first day of the student's actual attendance. A student participating in the program of more than one instructional unit shall be entered on the roll of that instructional unit in which 50 percent or more of the student's time is scheduled and the student shall not be entered on the roll of other instructional units;

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(b) A student whose withdrawal status is known or can be determined within ten days shall be marked as a withdrawal on the school day following the last day of actual attendance. If a student's withdrawal status cannot be determined, the student may be carried as absent for a maximum of ten consecutive school days and shall be withdrawn on the eleventh consecutive school day.

(5) Membership and attendance accounting in instructional units scheduled to operate a full school day shall be recorded as follows:

(a) A full-time equivalency (FTE) for each student enrolled shall be determined each quarter. Students participating in more than one-half of the full-day program shall be given an FTE of 1.0. Students participating in one-half or less of the full-day program shall be given an FTE of .5. The FTE computation of students participating in community college programs under paragraph (B) of this subsection shall include time spent in the community college program;

(A) Kindergarten students shall be assigned an FTE of 1.0. The Department shall adjust the total days membership of kindergarten students reflecting the permissible percentage as stated in statute,

(B) Students enrolled in dual-credit courses mutually agreed upon between a local school district and a community college and for whom the community college claims reimbursement from the Community College Operating Fund shall be accounted for as follows:

(i) Each local district enrolling such students shall report to the Department the number of instructional hours received by those students for whom community college reimbursement will be claimed. The report shall be prepared by the local district and verified by the community college prior to submission to the Department. Each report shall yield subtotals for resident and nonresident students by district.

(ii) Two reports shall be required each year: The first covering the quarter ending December 31 and the second covering the year ending June 30.

(iii) The Department shall convert to ADM the community college instructional hours reported for each reporting period by multiplying the total hours of instruction by .167 and dividing the product by 55 for the December 31 quarterly report and by 175 for the June 30 annual report.

(iv) The ADM computed in subparagraph (iii) of this section shall be deducted by the Department from the ADM of the district.

(C) Students participating in district supervised work-study programs may be credited as 1.0 FTE. If a student is released for work during school hours and the district assumes no supervisory responsibility for the time involved, that time shall not be counted as participation in the full-day program when determining the student's FTE.

(b) Membership of each student for the quarter shall be computed as follows: student FTE times days present plus student FTE times days absent equals total days membership of the student. Each

student shall be counted in membership as either present or absent from the date of enrollment to the date of withdrawal on those days when the instructional unit is in session. The day upon which a student is marked as a W (except W9) shall not be counted as a day of membership;

(c) Total days membership of the instructional unit shall be the total of days membership of all students enrolled in the instructional unit as computed in subsection (b) of this section. The computation of total days membership of the instructional unit shall yield subtotals indicating grade placement and resident/nonresident status of student membership;

(d) The Department shall compute the ADM and ADA of resident students, nonresident students, and attending students for each instructional unit reporting and derive totals of such data for each local school district in the state, subject to the following procedures:

(A) ADM is the total days membership of an instructional unit during a specific reporting period divided by the number of days the instructional unit was in session during that reporting period. The ADM of groups of instructional units having varying lengths of terms shall be the sum of the ADMs obtained for the individual instructional units. If a district school board adopts a class schedule that operates throughout the year under the provisions of ORS 336.012 for all or any instructional units in the district, the computation shall be made so that the resulting ADM will not be higher or lower than if the local board had not adopted such a schedule,

(B) ADA is the total days attendance of an instructional unit during a specific reporting period divided by the number of days the instructional unit was in session during that reporting period. The ADA of groups of instructional units having varying lengths of terms shall be the sum of the ADAs obtained for the individual instructional units. If a district school board adopts a class schedule that operates throughout the year under the provisions of ORS 336.012 for all or any instructional units in the district, the computation shall be made so that the resulting ADA will not be higher or lower than if the local board had not adopted such a schedule.

(6) Students enrolled in part-time programs shall be accounted for as follows:

(a) The ADM of students enrolled in the following part-time programs shall be computed as stated in subsections (b), (c), and (d) of this section;

(A) Students through age 20 in continuation evening schools under provisions of ORSs 336.125, 336.135, 339.250, 339.25β,

(B) Students enrolled in nonpublic schools who receive instruction in a public school on a part-time basis,

(C) Students receiving home instruction provided by certificated district staff,

(D) Kindergarten students receiving instruction from their parents, if the program offered is authorized by the local district board, meets the standards of the State Board of Education, is financed by local district funds, and provides

the parent with instruction from appropriately certificated personnel, or from teacher aides working under the supervision of such certificated personnel.

(b) The ADM of students enrolled under paragraphs (a)(A) and (B) of this section shall be computed by multiplying total hours of instruction given all students during the reporting period by .167 and dividing the product by 55 for the December 31 quarterly report and by 175 for the June 30 annual report;

(c) The ADM of students enrolled under paragraph (a)(C) of this section shall be computed by dividing total number of hours of home instruction given (not to exceed 5 hours per week for a single student) by 55 for the December 31 quarterly report and by 175 for the June 30 annual report;

(d) The ADM of students enrolled under paragraph (a)(D) of this section shall be computed by dividing the total hours of instruction given parents by district personnel by 55 for the December 31 quarterly report and by 175 for the June 30 annual report. The Department shall adjust the hours of instruction given reflecting the permissible percentage for kindergarten students as stated in statute;

(e) The computation of ADM for each part-time program listed shall yield subtotals for resident and nonresident students;

(f) The ADM of students enrolled in part-time programs shall be reported to the Department for the quarter ending December 31 and for the year ending June 30.

(7) Membership for nonresident students:

(a) The Department shall credit to the resident district the ADM of the following students who are attending a school or program which is not operated by the student's resident district:

(A) Students enrolled in an ESD operated or school district operated program for the trainable mentally retarded (ORS 430.760 to 430.820), or handicapped students covered by ORS 343.035 to 343.307,

(B) Dependent students covered under provisions of ORS 339.165 to 339.185,

(C) Students for whom the resident district pays tuition, inclusive of tuition payments to private schools as authorized by statute,

(D) Students whose tuition is paid by their parents;

(b) School districts, ESDs, and private schools operating programs for students covered under subsection (a) of this section shall report on forms provided by the Department:

(A) Enrollment, attendance, and membership on a quarterly basis to the Department, and

(B) Nonresident membership for the school year ending June 30 and the quarter ending December 31 to the resident districts for verification and subsequent submission to the Department.

(8) The Superintendent shall prescribe the applicable student accounting procedures for any programs or specific situations not covered by the provisions of this rule.

(9) The effective date of this rule is July 1, 1981.

Rule adopted January 16, 1981.

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Resident Enrollment and Resident Average Daily Membership by County Lines

581-23-018 To provide a basis for budgeting purposes and for final distribution of the Common School Fund and the County Fund to the school districts, the following procedure shall be followed:

(1) Each school district with territory lying in more than one county (joint districts) shall report to the Oregon Department of Education the resident enrollment by county lines as of December 31 and June 30 of each year. Resident enrollment is defined as the sum of E1 + E2 + R3 + R5 (as defined in OAR 581-23-010) for pupils who are legal residents of the school district, regardless of where they may attend school. Such reports shall be due within 15 days after the close of the respective quarters.

(2) The Department of Education will then prorate by county the resident average daily membership (ADM — as defined in ORS 327.006) of the joint districts in the same proportion as the district's resident enrollment is prorated between counties.

(3) By March 15 the Department of Education will certify to each intermediate education district (IED) or county school district the December 31 report of resident ADM by county lines. These data are to be used for purposes of budgeting each district's share of estimated receipts from the Common School Fund and the County School Fund

(4) By November 1, the Department of Education will certify to each IED or county school district the June 30 report of resident ADM by county lines. These data are to be used for purposes of final distribution to the districts of the Common School Fund and the County School Fund

Stat. Auth. ORS Ch 326 & 327
Hist·   1 EB 234, f & ef 6-18-76

School Census

581-23-019 (1) By January 1 of each year, the Center for Population Research and Census certifies to the Oregon Department of Education and to the administrative office of each county an estimate of the population of each county between the ages of 4 and 20, as of October 25 of the previous year This census is used as the basis for the apportionment of the distributable income account of the Common School Fund to the counties by the Division of State Lands, and also as the basis for determining the amount of the County School Fund mandated levy by the administrative office of each county.

(2) In order to satisfy statutory references to "school age children" or "school census", an estimated census for all common (unified and elementary) school districts shall be computed in the following manner:

(a) The Department of Education shall prorate the annual estimated school census of the state to each intermediate education district or county school district in the same proportion as each IED's or county school district's resident average daily membership (as defined in ORS 327.006) for the previous June 30 bears to the total resident average daily membership of the state. This census is certified by the Department of Education to each IED or county school district by January 31 of each year.

(b) Each IED or county school district shall then prorate this school census to the common school districts within its jurisdiction according to the plan approved by the Superintendent of Public Instruction prior to January 1, 1973. Such distribution is to be reported by the IED or county school district to the districts and the Department of Education by March 15 of each year. This district census is used only for satisfaction of the above mentioned statutory references, and is not used for the distribution of any funds.

Stat. Auth.: ORS Ch. 326 & 327
Hist: 1 EB 234, f. & ef. 6-18-76

Distribution of Common School Fund

581-23-020   [1 EB 184, f. 7-5-72, ef. 7-15-72
            Repealed by 1 EB 234, f. & ef. 6-18-76]

Admission and Tuition Payments of Dependent Children

581-23-021 A student placed by a public or private, licensed child-caring agency in a facility authorized to care for seven or more such children is to be considered resident in the district in which the parents resided at the time the student became a ward. The child must be admitted to the schools of the district in which he has been placed and his education must be supported by a tuition payment to the attending district from the resident district. The tuition payment is due immediately upon receipt of billing and is computed by the Department of Education by multiplying the total days attendance of the individual child in the attending district times the quotient of statewide average current expenditure per resident average daily membership divided by the number of days taught in the attending district.

(1) The Children's Services Division will notify the Department of Education of the existence and creation of facilities for dependent children which are authorized to provide care for seven or more children.

(2) The attending district shall submit such reports as may be required by the Department of Education giving information on all students attending school in the district as a result of placement in a child-caring facility. The information submitted shall include the name of the student, name and number of the resident district, the pupil's home address, and the total days attendance during the year or projected total days attendance for the March 1 estimate.

(3) The Estimate of Attendance Report shall be submitted to the Department at the end of January of the school year for which billing is being made. For purposes of preparing the March 1 estimate, the attending district shall estimate the total days attendance by projecting days attendance from February 1 through the close of the school year, for those dependent children still attending in the district's schools at the end of January. For those dependent children being reported who have left the child-caring facility before January 31 of the school year, the attending district shall report the actual days attendance on the Estimate of Attendance Report.

(4) The final Report of Attendance shall be submitted to the Department by July 15 following the school year. Actual total days attendance shall be reported on all children for whom the attending district is claiming tuition. The final Report of Attendance shall be submitted to the Department by July 15 following the school year for which billing is being made.

(5) For purpose of the March 1 estimate, the child-caring facility shall submit to the Department, via the attending school district at the end of January, a Preliminary Certification Report showing the names of the students, name and number of the resident district, the pupil's home address, and the date on which the dependent child entered the facility and where applicable, the date on which the dependent child left the facility if he/she terminated residence at the facility before January 30 of the school year being reported. The Preliminary Certification Report from the facility shall be submitted to the Department by the attending district along with its Estimate of Attendance Report. For purposes of preparing the March 1 estimate, a notarized affidavit shall not be required from the facility.

(6) Following the close of the school year, the child-caring facility shall submit to the Department, via the attending school district; a Report of Certification of Dependent Students, showing the names of the students, name and number of the resident district, home address, date entering the facility and the date on which the child left the facility. The Report of Certification shall be notarized.

(7) The Department shall prepare the March 1 estimate of tuition payments for dependent children and shall mail the computation forms to the resident school district. Following receipt of the Attendance Report and notarized Certification report from the child-caring facility on July 15 following the school year, the Department shall prepare and mail the final tuition billing forms to the resident school districts.

(8) The Department shall determine the amount of tuition due each attending district based upon the following formula: *State Average Current Expenditures Per Resident Average Daily Membership; Divided by Days Taught in Attending School District; Multiplied by Total Days Attendance of Dependent Children.*

(9) The Department shall submit a copy of the estimated and actual tuition computation form to each resident district.

(10) The resident school district shall remit payment directly to the attending district(s) upon receipt of the final billing.

(11) Where the resident district appeals its classification as "resident district" to the Department, the Department shall contact the Juvenile Department or Juvenile Court in the county in which the dependent child became a ward of the public agency and determine the parents' or legal guardian's residence at the time the child became a ward of the public agency. The address of the parents or guardian reported in the records of the County Juvenile Department or County Juvenile Court shall be used to determine the resident district for purposes of billing the tuition for dependent children. When a resident district is determined in this manner, the determination shall be final.

Stat. Auth.: ORS Ch 339
Hist: 1 EB 186, f. 3-6-75, ef. 3-25-75; 1 EB 233, f. 6-11-76, ef 6-18-76

Apportionment of County School Fund for Students in Special Education Program

581-23-025 (1) Administrators of special education programs to which support is contributed from the County School Fund shall submit to the Superintendent of Public Instruction by February 1 of each year the following two estimates:

(a) The resident average daily membership (ADMr) by county of pupils enrolled in the special programs listed in ORS 343.236, 343.261, 343.301, 343 305, and

(b) The operating costs of each such program.

(2) By March 1 of each year, the State Superintendent and his staff shall provide each IED having resident pupils in these programs with the estimated cost of educating them during the current year. This estimate shall constitute an obligation against the next year's County School Fund.

(3) By each July 15, final ADMr and expense data shall be submitted to the State Superintendent.

(4) In turn, by August 15 of each year, he and his staff shall certify in a billing to each such IED the final amount to be reimbursed That amount shall be the lesser of:

(a) The actual cost during the prior school year of educating resident children in one or more of the special programs, or

(b) The average net operating expense per pupil for schools of the county two years prior, multiplied by the ADMr of students enrolled in these special programs.

(5) Upon receipt of the billing, the IED superintendent shall direct the county treasurer of his county to pay the total amount to the Superintendent of Public Instruction by December 15

(6) The State Superintendent shall deposit all such receipts in the general fund of the State Treasury.

(7) The children covered by this procedure shall be enumerated in the average daily membership of the district

providing the instruction but credit for days' attendance of such children shall not accrue to such school district for the purpose of distributing state school funds.

Stat. Auth. ORS Ch 343
Hist 1 EB 134, f 7-5-72, ef 7-15-72, 1 EB 225, f & ef 6-4-76

BASIC SCHOOL SUPPORT FUND

327.005 [Repealed by 1957 c 612 §1 (327 006 enacted in lieu of 327 005)]

327.006 Definitions for ORS 327.006 to 327.133. As used in ORS 327.006 to 327.053, 327.059, 327.063 and 327.072 to 327.133: ·

(1) "Aggregate days membership" means the sum of days present and absent, according to the rules of the State Board of Education, of all resident pupils when school is actually in session during a certain period. The aggregate days membership of kindergarten pupils shall be calculated on the basis of a half-day program

(2) "Average daily membership" means the aggregate days membership of a school during a certain period divided by the number of days the school was actually in session during the same period. However, if a district school board adopts a class schedule that operates throughout the year for all or any schools in the district, average daily membership shall be computed by the Department of Education so that the resulting average daily membership will not be higher or lower than if the board had not adopted such schedule....

CENSUS

332.575 Determination of school census by state and county offices. (1) The Superintendent of Public Instruction shall prorate the annual estimate of census as provided in ORS 327.410 and 327.420 in proportion as the resident average daily membership of each education service district or county school district bears to the total resident average daily membership of the state and certify such to the administrative officer of each education service district or county office.

(2) Subject to guidelines approved by the Superintendent of Public Instruction, the administrative officer of each education service district or county school officer shall apportion the census so certified to those common school districts reporting to the education service district or county school office. The estimated district census determined by this manner shall be deemed applicable to all statutory references to the term "census" or "school age child" in Oregon Revised Statutes [1971 c 294 §9]

332.580 [Repealed by 1953 c 234 §2]

332.585 Determination of school census by school districts. The district school board may conduct a student census to determine the number of pupils between the ages of 4 and 20 resident therein [1971 c 294 §8]

332.590 [Amended by 1957 c 198 §3, 1963 c 570 §1c, renumbered 332 725]

332.595 Determination of residency for school purposes. (1) Except as provided in subsection (3) or (4) of this section, children between the ages of 4 and 18 shall be considered resident for school purposes in the school district in which their parents, guardians or persons in parental relationship to them reside

(2) Nonemancipated individuals between the ages of 4 and 18 living outside the geographic area of the school district for such reasons as attending college, military service, hospital confinement or employment away from home shall be considered resident in the district in which their parents, guardians or persons in parental relationship to them reside

(3) Those individuals considered legally emancipated from their parents shall be considered resident in the district in which they actually reside, irrespective of the residence of their parents, guardians or persons in parental relationship.

(4) Wards of public or private agencies who are living in substitute care programs licensed, certified or approved for a maximum of six children, shall be considered resident in the school district in which they reside by placement of the public or private agency.

(5) Persons living temporarily in a school district for the primary purpose of attending a district school shall not be considered legally resident of the district in which they are living temporarily, but shall be considered resident in the district in which they, their parents, guardians or persons in parental relationship to them maintain residency.

(6) For the purposes of subsection (4) of this section, "substitute care program" means family foster care, family group home care, parole foster care, family shelter care, adolescent shelter care and professional group care. [1971 c 294 §10, 1973 c 827 §28, 1979 c 836 §4].

DEFINITION

339.005 Definition. As used in ORS 339.005 to 339 145, 339.410, 339 420 and 339.990, unless the context requires otherwise, "administrative office for the county" means the administrative office of the educa-

tion service district, of the county school district or of the administrative school district which includes an entire county. [1965 c 100 §273; 1973 c.728 §3]

COMPULSORY SCHOOL ATTENDANCE

339.010 School attendance required; age limits. Except as provided in ORS 339.030, all children between the ages of 7 and 18 years who have not completed the 12th grade are required to attend regularly a public full-time school of the school district in which the child resides. [Amended by 1965 c 100 §274]

339.020 Duty to send children to school. Except as provided in ORS 339.030, every person having control of any child between the ages of 7 and 18 years who has not completed the 12th grade is required to send such child to and maintain such child in regular attendance at a public full-time school during the entire school term. [Amended by 1965 c 100 §275, 1969 c 160 §1]

339.030 Exemptions from compulsory school attendance. In the following cases, children shall not be required to attend public full-time schools:

(1) Children between the ages of 16 and 18 years who are lawfully employed full time, who are lawfully employed part time and in school part time, who are attending a community college, or are engaged in activities equivalent to the preceding.

(2) Children being taught in a private or parochial school in the courses of study usually taught in grades 1 through 12 in the public schools and in attendance for a period equivalent to that required of children attending public schools.

(3) Children proving to the satisfaction of the district school board that they have acquired equivalent knowledge to that acquired in the courses of study taught in grades 1 through 12 in the public schools

(4) Upon determination pursuant to criteria of the State Board of Education that a child is suffering from physical or mental illness or disease of such severity as to make his presence in a school facility or his travel to and from such facility impossible or dangerous to his health or the health of others, the public schools shall provide the child either home, hospital, institutional or other regularly scheduled and suitable instruction meeting standards of the State Board of Education, unless such child is receiving suitable instruction in a state or regional facility or institution.

(5) Children between the ages of 7 and 10 years whose parents live more than one and one-half miles, and children over 10 years of age whose parents live more than three miles, by the nearest traveled road, from some public school and for whom the school district does not provide transportation over the distances specified in this subsection.

(6) Children being taught for a period equivalent to that required of children attending public schools by a parent or private teacher the courses of study usually taught in grades 1 through 12 in the public school.

(a) Before the children are taught by a parent or private teacher, the parent or teacher must receive written permission from the executive officer of the resident school district. The permission shall not extend beyond the end of the school year in which permission is granted. If permission is not granted, the person having legal custody of the children may appeal the decision to the school board of the resident district.

(b) Children being taught by a parent or private teacher must be examined in the work covered Such examinations shall be prepared by the State Board of Education and provided to school districts upon request. If the executive officer of the administrative office determines after examination that the children are not being taught properly, he shall order the person having control of the children to send them to school for the remainder of the school year.

(7) Children excused by the district school board of the district in which the children reside The district school board has authority to excuse a child from compulsory attendance if the child has completed the first eight grades.

(8) Children excluded from attendance as provided by law

(9) Children between the ages of 16 and 18 years who have the mutual consent of the school administration and the parent or other individual having custody or legal guardianship over a child. [Amended by 1965 c 100 §276; 1967 c 67 §8, 1971 c 494 §1, 1973 c 728 §1]

**339.040 Attendance supervisors; appointment; compensation. (1) The executive officer of the administrative office for the county shall appoint one person to act as the

attendance supervisor for school districts having a school census of less than 1,000 children in the county. The attendance supervisor shall perform his duties under the direction of the administrative office for the county. The attendance supervisor shall receive as compensation for services a sum fixed by the governing body of the county and allowed and paid in the same manner as the salaries of county officers are paid.

(2) District school boards of districts having a school census of 1,000 or more children, according to the latest school census, shall appoint attendance supervisors and fix and pay their compensation.

(3) The administrative office for the county, upon written application from the district school board in any school district having a school census of more than 200 and less than 1,000 children, according to the latest school census, shall grant such district permission to appoint attendance supervisors and fix their compensation and pay.

(4) For purposes of the appointment and duties of attendance supervisors, the territory in a joint school district shall be considered part of the county in which the administrative office of the joint district is located. [Amended by 1965 c 100 §277]

339.050 [Amended by 1965 c.100 §278, repealed by 1965 c 136 §1]

339.055 Duties of attendance supervisors. The attendance supervisor when notified of a truancy or unexcused absence shall investigate the truancy or nonattendance at school. If the child is not exempt from compulsory school attendance, the attendance supervisor shall proceed as provided in ORS 339.080 and 339.090. [Formerly 339 100]

339.060 [Repealed by 1965 c 100 §456]

339.065 Estimates of attendance; irregular attendance; excused absences. (1) In estimating regular attendance for purposes of the compulsory attendance provisions of ORS 339.005 to 339.145, 339.410, 339.420 and 339.990, the principal or teacher shall consider all unexcused absences. Eight unexcused one-half day absences in any four-week period during which the school is in session shall be considered irregular attendance.

(2) An absence may be excused by a principal or teacher if the absence is caused by the pupil's sickness, by the sickness of some member of the pupil's family or by an emergency. A principal or teacher may also excuse absenc-

es for other reasons where satisfactory arrangements are made in advance of the absence.

(3) Any pupil may be excused from attendance by the district school board for a period not to exceed five days in a term of three months or not to exceed 10 days in any term of at least six months. Any such excuse shall be in writing directed to the principal of the school which the pupil attends. [1965 c 100 §281, 1973 c.728 §4]

339.070 [Repealed by 1963 c 544 §52]

339.080 Nonattendance notice to parents and school officials. (1) Except as provided in ORS 339.030, in case any parent or other person in parental relation fails to send any child under his control to the public school, the attendance supervisor, within 24 hours after notification from the proper authority of the failure, shall give formal written notice in person or by registered or certified mail to the parent or other person. The notice shall state that the child must appear at the public school on the next school day following the receipt of the notice. The notice shall inform the parent or other person that regular attendance at school must be maintained during the remainder of the school year.

(2) At the same time notice is given to the parent or other person, the attendance supervisor shall notify the city superintendent or principal, as suitable, of the fact of the notice. The superintendent or principal shall notify the attendance supervisor of any failure on the part of the parent or other person to comply with the notice. [Amended by 1965 c 100 §282]

339.090 Determination of compliance with notice. The attendance supervisor shall determine whether the parent or other person given written notice of attendance requirements has complied with the notice. If he determines that the parent or other person has failed to comply, the attendance supervisor, within three days after having knowledge of such failure or after being notified thereof, shall make a complaint alleging the parent or other person's refusal or neglect to send the child to school. The complaint shall be made before a court having jurisdiction over misdemeanors committed within the county in which the parent or other person resides. The judge shall issue a warrant upon the complaint and shall proceed to hear and determine the matters alleged in the complaint in the same manner he hears and determines

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other cases under his jurisdiction. [Amended by 1965 c 100 §283]

339.100 [Amended by 1963 c 544 §47; 1965 c 100 §279, renumbered 339.055]

339.110 [Repealed by 1965 c 100 §456]

ADMISSION OF PUPILS; TUITION AND FEES

339.115 Admission of pupils; waiver. (1) Except as provided in ORS 336.165 authorizing tuition for courses not part of the regular school program, the district school board shall admit free of charge to the schools of the district all persons between the ages of 6 and 21 residing therein. However, a district school board may admit other nonresident persons, determine who is not a resident of the district and may fix rates of tuition for nonresidents.

(2) A child entering school for the first time during the fall term shall be considered to be six years of age if his sixth birthday occurs on or before November 15. A child entering school for the first time in a midwinter term, if the school has a beginning first-year class in midwinter, shall be considered to be six years of age if his sixth birthday occurs on or before March 15. However, nothing in this section prevents a district school board from admitting free of charge a child who is an educationally able and gifted child, as defined in ORS 343.395, entering school for the first time who has not attained the sixth birthday but who is a resident of the district.

(3) District school boards may provide, by rule, that a resident child eligible to enter a beginning first-year class at the opening of the fall term or midwinter term, but who does not enter within the first four weeks of such term shall be ineligible to enter school for the remainder of the school year or until another beginning first-year class is organized during that school year. A district school board may waive the requirements of this subsection for disadvantaged children as defined by ORS 343.650. [1965 c.100 §285, 1971 c 410 §1, 1977 c 463 §1]

339.120 [Amended by 1957 c.198 §5; repealed by 1965 c.100 §456]

339.125 Admission of nonresident pupils; costs. (1) The district school board may contract with the district school board of any other district for the admission of pupils in schools of the other district. The contract shall be in writing upon forms furnished by the Department of Education. Expense incurred shall be paid out of the school funds of the district sending such pupils. If the district sending the pupils fails to pay the expense so incurred according to the terms of the contract, the administrative office for the county containing such school district, after satisfactory proof of such failure, shall deduct the amount of the unpaid expense from the amount due the school district at the next regular apportionment. The treasurer shall pay the amount of the reduced apportionment out of the county school fund.

(2) In case the school district sending the pupils is a joint district, jurisdiction shall be exercised by the administrative office for the county in which the most populous part of such district is situated, according to the latest school census. The office's action in the matter is final. [1965 c 100 §286]

339.130 [Amended by 1957 c 198 §6, repealed by 1965 c 100 §456]

339.135 Admission of children living in area under exclusive jurisdiction of Federal Government; effect on distribution of funds; reimbursement. (1) As used in this section, "exclusive jurisdiction" means exclusive legislative jurisdiction as described in Article I, section 8 of the Constitution of the United States.

(2) Children of school age who are living in any area within which the United States Government has exclusive jurisdiction shall be admitted free of charge at adjacent public schools. They may be placed on the school census of the school district in which they attend school. Credit for days' attendance of such children shall accrue to the school attended for the purpose of distributing state school funds.

(3) No more than the difference between the actual per pupil cost of tuition and reasonable costs of transportation per pupil where transportation is furnished by the school district, and the average receipts of the school district per pupil from county, state and federal sources other than the local district tax shall be paid by the state from funds specifically appropriated for the program under this section.

(4) If the amount appropriated for a fiscal year for the program under this section is insufficient to provide full apportionments as provided in subsection (3) of this section, the amount available shall be distributed on a pro rata basis to the claiming districts. [1965 c.100 §287; 1967 c.507 §6]

339.140 [Repealed by 1965 c.100 §456]

ADMISSION OF DEPENDENT CHILDREN

339.165 Definitions for ORS 339.165 to 339.185. As used in ORS 339.165 to 339.185, unless the context requires otherwise:

(1) "Attending district" means the school district in which the dependent child attends school.

(2) "Dependent child" means a child who is in any facility which is authorized to provide care for seven or more children through placement by a public agency or by a private, licensed child-caring agency.

(3) "Resident district" means the school district in which the parents or legal guardian, if any, of the dependent child resided at the time the child became a ward of the public agency. If the dependent child has no parents or legal guardian, or none can be located, the child shall be considered to be resident of the district in which he resided at the time he became a dependent child. [1971 c 402 §1, 1973 c 327 §1]

339.170 [Repealed by 1965 c.100 §456]

339.175 Consultation with school board before establishing, expanding or changing facility for dependent children. Prior to establishing or expanding a facility for dependent children or changing the type of educational services provided or the category of dependent children being served by the facility in any school district, the authorities of the public or private agency creating or altering such a facility shall confer with the board of directors of any substantially affected district to determine the impact of the additional children and services upon the facilities and program of the district. [1971 c.402 §2; 1979 c.836 §7]

339.180 [Repealed by 1965 c.100 §456]

339.185 Admission of dependent children to school or other program where placed; tuition due from resident district; computation of tuition. (1) A dependent child, as defined in ORS 339.165, must be admitted to the public schools of the district in which the child has been placed by the public or private, licensed child-caring agency.

(2) Except as provided in ORS 343.960 to 343.980, the school district shall provide or cause to be provided appropriate education to dependent children, including the identification and evaluation of such children for pur-

poses of determining their eligibility as handicapped children to receive special education services enumerated in subsection (3) of ORS 343.035 and subsection (2) of ORS 343.650. The education may be provided by the school district or by contract with an adjacent school district, an education service district, a private education agency, a community college, higher education programs or, if the program meets the criteria established under ORS 343.045, any other appropriate program. The instruction may be given in the facilities of such districts or in facilities provided by the education agency or the child-caring agency in which the child resides.

(3) The attending district shall notify the Department of Education as to the number of days of attendance by each child of a resident district by July 15 following the school year. The notification shall be accompanied by a signed affidavit from the agency having legal custody of the child or children, stating the period of time the child has lived in the district providing the educational service.

(4) The department shall compute the costs and shall submit a bill for tuition payment to the resident district. The resident district shall remit payment directly to the attending district upon receipt of the tuition billing.

(5) The attending district shall supply the names of dependent children to the department by March 1 of the year for which billing is to be made. The department shall supply the names of the dependent children to the superintendent of the resident district which is billed for tuition for the dependent children. To maintain confidentiality of the records, the department shall supply the names of the dependent children separate from the billing therefor.

(6) The resident district may appeal its classification as "resident district" to the Superintendent of Public Instruction. The superintendent shall determine the residency of the dependent children in question and his decision is final and not subject to appeal.

(7) The Superintendent of Public Instruction shall determine the amount of tuition based upon the average current expenditure per resident average daily membership state wide. The figure so determined shall be divided by the number of days taught in the attending district submitting the tuition notification. This figure multiplied by the total days' attendance of the individual child in the attending district shall represent the tuition

charge to the resident district. [1971 c.402 §3; 1973 c.327 §2; 1979 c.836 §1]

339.190 [Repealed by 1965 c.100 §456]

339.200 [Repealed by 1965 c.100 §456]

339.253 Enrollment in alternate program; costs. (1) If it is determined pursuant to subsection (5) of ORS 339.250 by the district school board, in consultation with the pupil's parents or legal guardian, that a pupil can benefit substantially from a specific alternate program of instruction that is not available in the district schools, the parents or legal guardian may enroll the pupil in that specified privately operated alternate program of instruction in this state which is registered with the Department of Education. If the child is determined to be eligible for special education under ORS 343.221 to 343.307, the program must be approved by the Department of Education prior to the placement of the pupil in the program. The pupil enrolled pursuant to this subsection shall be considered enrolled in the schools of the district for purposes of the distribution of the Basic School Support Fund.

(2) The alternate program in which the pupil enrolls shall notify the school district in which the pupil or the pupil's parents or legal guardian, if any, resided at the time the pupil enrolled of the child's enrollment and may bill the school district for tuition. The billing may be made annually or at the end of each term or semester of the alternate program. The school district shall pay at least an amount equivalent to the district's receipts from the Basic School Support Fund for the pupil. The reimbursement paid to an alternate program is not intended to displace funds or services which a program may already receive from the school district for the education of such pupils. The alternate program will be accountable for the expenditures of all basic school and other local school support funds, providing the school district with an annual statement of such expenditures. [1979 c.739 §2]

339.255 Effect of failure to propose alternative programs. (1) The Superintendent of Public Instruction shall find a school district to be deficient within the meaning of ORS 327.103 if the district fails to cause the proposal of alternative programs to be made under subsection (5) or (6) of ORS 339.250.

(2) The failure to cause the proposal of alternative programs shall not be grounds for a civil action against the school district. [1979 c.836 §3]

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OREGON DEPARTMENT OF EDUCATION, SALEM, OREGON 97310

| | 1st QTR | 3rd QTR | ANNUAL |
| | 2nd QTR | 4th QTR | |

I ENROLLMENT — REGULAR SESSION

GRADE	SUMMARY OF ENROLLMENT (CUMULATIVE)							STUDENTS' REMAINING	TOTAL DAYS MEMBERSHIP FOR REPORTING PERIOD
	E_1	E_2	R_3	R_5	$R_1R_2R_4$	W			
KG									
1									
2									
3									
4									
5									
6									
7									
8									
UNCL (1 8)									
9									
10									
11									
12									
UNCL (9 12)									
TOTAL									

II DAYS IN SESSION
(SEE INSTRUCTIONS ON REVERSE)

ITEM	DAYS
NO OF DAYS IN SESSION	

IV LENGTH OF SCHOOL YEAR
(1st QUARTER ONLY)

ITEM	DAYS
1 NO OF DAYS TO BE TAUGHT DURING YEAR	
2 OPENING DAY OF SCHOOL	
3 SCHEDULED CLOSING DAY OF SCHOOL	

V HIGH SCHOOL GRADUATES

(ANNUALLY — ACTUAL)

1 MALES	
2 FEMALES	

III. SUMMARY OF ATTENDANCE IN REGULAR SESSION

	ITEM	RESIDENT STUDENTS	NON RESIDENT STUDENTS	ATTENDING STUDENTS
KINDERGARTEN	TOTAL DAYS PRESENT			
	TOTAL DAYS ABSENT			
	TOTAL DAYS MEMBERSHIP			
GRADES 1- 8	TOTAL DAYS PRESENT			
	TOTAL DAYS ABSENT			
	TOTAL DAYS MEMBERSHIP			
GRADES 9 12	TOTAL DAYS PRESENT			
	TOTAL DAYS ABSENT			
	TOTAL DAYS MEMBERSHIP			

"STUDENTS REMAINING" IS NOT TO BE USED AS BEGINNING ENROLLMENT FOR THE NEXT QUARTER.

THIS SUMMARY SHEET SHOULD BE PREPARED IN QUADRUPLICATE BY EACH BUILDING PRINCIPAL AT THE END OF EACH QUARTER. IF THE REGISTER IS NOT CENTRALLY KEPT IN THE BUILDING, THEN EACH TEACHER KEEPING A REGISTER SHOULD COMPLETE SECTIONS I AND III OF THE SUMMARY SHEET AND FORWARD A COPY TO THE BUILDING PRINCIPAL FOR COMPILATION. ONE COPY SHOULD BE RETAINED IN THE REGISTER AND THE REMAINING THREE SENT TO THE DISTRICT OFFICE. THE DISTRICT OFFICE WILL FORWARD TWO TO THE ESD SUPERINTENDENT, WHO WILL FORWARD ONE TO THE OREGON DEPARTMENT OF EDUCATION.

581-3200 (rev. 2/81)

45

INSTRUCTIONS:

This report is due in the Oregon Department of Education 10 days after the end of each quarter and the end of the school year.

Before completing this report, please refer to the *Oregon Student Accounting Manual*, dated February 1981

SECTION I.   Enrollment is to be cumulative. For example, the 2nd quarter report should include the enrollment data for the 1st and 2nd quarters.

Students Remaining must not be used as beginning enrollment on the succeeding report period.

A student is present or absent (is counted in membership) from the day of enrollment to the day of withdrawal. A student whose withdrawal status is known or can be determined within ten days shall be marked as a withdrawal on the school day following the last day of actual attendance. If a student's withdrawal status cannot be determined, the student may be carried as absent for a maximum of ten consecutive days and shall be withdrawn on the eleventh consecutive school day.

Total Days Membership for the reporting period (Section I, Item 133) must equal the grand total days membership for attending students in Section III. Total days membership is *not* cumulative on the quarterly reports. It should be reported only for the period concerned.

SECTION II.   A day in session means a scheduled day of instruction during which students are under the guidance and direction of teachers. These are the only days on which membership can be counted.

SECTION III.   In this section, the total days present, total days absent, and total days membership by level (Kg., 1-8, and 9-12) must be reported for resident students, nonresident students, and attending students. Attending Students is the total of resident and nonresident students.

SECTION IV.   This item is to be completed at the end of the 1st quarter only. The total days your school is scheduled to be in session should be reported in item 1. The date on which your school opened should be entered in item 2, and the scheduled closing date for the year should be entered in item 3.

The Opening Day of School is the first day of the school year on which the teacher and students are in a teaching-learning situation.

SECTION V.   This item *must* be completed on the annual report by each high school with a 12th grade. The number of high school graduates, divided between male and female, should reflect the total number of actual graduates during the year.

46

RESIDENT ADM IN PART-TIME AND SPECIAL PROGRAMS

☐ FOR QUARTER ENDING DECEMBER 31, 19___
☐ FOR YEAR ENDING JUNE 30, 19___

COUNTY _____   DIST.NAME & NO. _____

SECTION I.

TYPE OF PROGRAM	HOURS OF INSTRUCTION		MEMBERSHIP		EQUIVALENT ADM		
	1-8	9-12	1-8	9-12	1-8	9-12	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
CONTINUATION SCHOOL							
SHARED TIME							

COL. 2 & 3: ENTER THE TOTAL HOURS OF INSTRUCTION RECEIVED BY ALL STUDENTS.
COL. 4 & 5: MULTIPLY INSTRUCTIONAL HOURS BY .167
COL. 6 & 7: DIVIDE MEMBERSHIP (COLUMNS 4 & 5) BY 55 FOR THE QUARTER ENDING
DECEMBER 31 AND BY 175 FOR THE YEAR ENDING JUNE 30.

SECTION II.

TYPE OF PROGRAM	HOURS OF INSTRUCTION		EQUIVALENT ADM		
	1-8	9-12	1-8	9-12	TOTAL
(1)	(2)	(3)	(4)	(5)	(6)
HOME INSTRUCTION					

COL. 2 & 3: ENTER THE TOTAL HOURS OF INSTRUCTION RECEIVED BY ALL STUDENTS.
HOWEVER, NOT MORE THAN FIVE HOURS PER WEEK MAY BE COUNTED FOR
ANY STUDENT.
COL. 4 & 5: DIVIDE HOURS OF INSTRUCTION (COLUMNS 2 & 3) BY 55 FOR THE QUARTER
ENDING DECEMBER 31 AND BY 175 FOR THE YEAR ENDING JUNE 30.

SECTION III.

TYPE OF PROGRAM	HOURS OF INSTRUCTION KG.	EQUIV.ADM KG.	FOR USE BY O.D.E.
(1)	(2)	(3)	(4)
KINDERGARTEN INST. FROM PARENTS			

COLUMN 2: ENTER THE TOTAL HOURS OF INSTRUCTION GIVEN PARENTS BY INSTRUC-
TIONAL PERSONNEL.
COLUMN 3: DIVIDE HOURS OF INSTRUCTION (COLUMN 2) BY 55 FOR THE QUARTER
ENDING DECEMBER 31 AND BY 175 FOR THE YEAR ENDING JUNE 30.

I HEREBY CERTIFY THAT THIS REPORT IS TRUE, CORRECT, AND COMPLETE TO THE BEST OF MY
KNOWLEDGE.

_____   _____   _____
SIGNATURE   TITLE   DATE

FORM 581-3201 (REV.3/81)

THIS REPORT IS DUE IN THE OREGON DEPARTMENT OF EDUCATION 10 DAYS AFTER THE
END OF THE SECOND QUARTER AND THE END OF THE SCHOOL YEAR.

COMPLETE 3 COPIES OF THIS FORM. RETAIN ONE COPY AND FORWARD TWO TO THE ESD.
THE ESD WILL FORWARD ONE COPY TO THE DEPARTMENT OF EDUCATION.

DO NOT INCLUDE THIS MEMBERSHIP ON FORM 581-3200.

TYPE OF PROGRAM DEFINITIONS:

CONTINUATION SCHOOL: STUDENTS THROUGH THE AGE OF 20 IN CONTINUATION
                        EVENING SCHOOLS UNDER PROVISIONS OF ORS 336.125,
                        336.135, 339.250, 339.253

SHARED TIME: STUDENTS ENROLLED IN NONPUBLIC SCHOOLS WHO RECEIVE
                        INSTRUCTION IN A PUBLIC SCHOOL ON A PART-TIME
                        BASIS

HOME INSTRUCTION: STUDENTS RECEIVING HOME INSTRUCTION PROVIDED BY
                        CERTIFICATED DISTRICT STAFF

KINDERGARTEN: KINDERGARTEN STUDENTS RECEIVING INSTRUCTION FROM
                        THEIR PARENTS, IF THE PROGRAM OFFERED IS AUTHORIZED
                        BY THE LOCAL DISTRICT BOARD, MEETS THE STANDARDS OF
                        THE STATE BOARD OF EDUCATION, IS FINANCED BY LOCAL
                        DISTRICT FUNDS, AND PROVIDES THE PARENT WITH IN-
                        STRUCTION FROM APPROPRIATELY CERTIFICATED PERSONNEL,
                        OR FROM TEACHER AIDES WORKING UNDER THE SUPERVISION
                        OF SUCH CERTIFICATED PERSONNEL.

REPORT NON-RESIDENT STUDENTS ON A SEPARATE FORM AND INCLUDES THE NAME AND
NUMBER OF THE RESIDENT DISTRICT.

IF YOU HAVE QUESTIONS REGARDING THE COMPLETION OF THIS FORM, PLEASE CALL
378-3631.

BASIC SCHOOL SUPPORT FUND REPORT OF NON-RESIDENT STUDENTS

☐ FOR QUARTER ENDING DECEMBER 31, 19__ /
☐ FOR YEAR ENDING JUNE 30, 19__

ATTENDING IN
DIST. NAME & NO. _____

RESIDENT IN
DIST. NAME & NO. _____

COUNTY _____   COUNTY _____

SECTION I. STUDENTS FOR WHOM THE RESIDENT DISTRICT PAYS TUITION OR WHO ATTEND ESD-FINANCED PROGRAMS

NAME OF SCHOOL ATTENDED	DAYS IN SESSION	TOTAL DAYS MEMBERSHIP			AVERAGE DAILY MEMBERSHIP			
		KG	1-8	9-12	KG (3)÷(2)	1-8 (4)÷(2)	9-12 (5)÷(2)	TOTAL (6)+(7)+(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTALS								

SECTION II. STUDENTS ATTENDING UNDER PROVISION OF ORS339.165-339.185 (DEPENDENT CHILDREN FROM CHILD-CARING AGENCIES)

NAME OF SCHOOL ATTENDED	DAYS IN SESSION	TOTAL DAYS MEMBERSHIP			AVERAGE DAILY MEMBERSHIP			
		KG	1-8	9-12	KG (3)÷(2)	1-8 (4)÷(2)	9-12 (5)÷(2)	TOTAL (6)+(7)+(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTALS								

SECTION III. STUDENTS FOR WHOM THE RESIDENT DISTRICT DOES NOT PAY TUITION

NAME OF SCHOOL ATTENDED	DAYS IN SESSION	TOTAL DAYS MEMBERSHIP			AVERAGE DAILY MEMBERSHIP			
		KG	1-8	9-12	KG (3)÷(2)	1-8 (4)÷(2)	9-12 (5)÷(2)	TOTAL (6)+(7)+(8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
TOTALS								

THIS REPORT IS DUE 10 DAYS AFTER THE END OF THE SECOND QUARTER AND THE END OF THE YEAR.

BEFORE COMPLETING THIS REPORT, PLEASE REFER TO THE <u>OREGON STUDENT ACCOUNTING MANUAL</u>, DATED FEBRUARY 1981, AND CAREFULLY READ THE INSTRUCTIONS ON THE REVERSE SIDE OF THIS FORM.

I CERTIFY THAT THE ABOVE REPORT IS TRUE, CORRECT, AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

_____   _____
SIGNATURE FOR ATTENDING DISTRICT.   SIGNATURE FOR RESIDENT DISTRICT

50

FORM 581-3202 (REV. 3/81)

INSTRUCTIONS FOR ATTENDING DISTRICT:

1. INDICATE THE REPORTING PERIOD (EITHER THE 2ND QUARTER ENDING DECEMBER 31 OR THE YEAR ENDING JUNE 30). IF THE REPORT COVERS THE 2ND QUARTER, REPORT DATA FOR THE PERIOD OCTOBER 1 THROUGH DECEMBER 31; DO NOT INCLUDE THE 1ST QUARTER. FOR THE YEAR END REPORT, INCLUDE DATA FOR ALL FOUR QUARTERS.

2. SECTION I: COMPLETE A SEPARATE REPORT FOR EACH DISTRICT WHICH HAD STUDENTS ATTENDING YOUR DISTRICT IF:

   A) THE RESIDENT DISTRICT PAYS TUITION, OR
   B) THE STUDENTS ARE ATTENDING AN ESD-FINANCED PROGRAM.

   TUITION MAY INCLUDE PAYMENT IN DOLLARS OR OTHER IDENTIFIABLE MEANS. FOR EXAMPLE: EXCHANGE OF STUDENTS (EITHER ONE FOR ONE OR OTHER MUTUALLY AGREED UPON ARRANGEMENT) OR BY PROVISION OF SERVICES.

   SECTION II: COMPLETE A SEPARATE REPORT FOR EACH DISTRICT THAT WILL BE BILLED FOR STUDENTS ATTENDING YOUR DISTRICT UNDER PROVISION OF ORS 339.165 THROUGH 339.185. PLEASE NOTE THAT THIS REPORT REQUESTS TOTAL DAYS MEMBERSHIP RATHER THAN TOTAL DAYS ATTENDANCE AS REPORTED ON THE BILLING FORM.

   SECTION III: COMPLETE A SEPARATE REPORT FOR EACH DISTRICT WHICH HAD STUDENTS ATTENDING YOUR DISTRICT FOR WHOM THE RESIDENT DISTRICT DOES NOT PAY TUITION.

3. IN THE INTEREST OF EXPEDITING THE PROCESSING OF THIS FORM, YOU MAY WISH TO ATTACH TO EACH REPORT A LISTING OF THE NAMES OF THE STUDENTS FOR WHOM THE DATA APPLY. THIS WILL ENABLE THE RESIDENT DISTRICT TO VERIFY MORE QUICKLY THE RESIDENCY OF EACH STUDENT. A SAMPLE FORMAT IS ATTACHED FOR YOUR USE IF YOU WISH.

4. SIGN EACH FORM BEFORE FORWARDING.

   SEND ONE COPY OF EACH FORM TO THE DEPARTMENT OF EDUCATION.

   SEND TWO COPIES TO THE RESIDENT DISTRICT FROM WHICH THE STUDENT(S) COME.

   SEND ONE COPY TO THE ESD OF THE COUNTY FROM WHICH THE STUDENT(S) COME.

   RETAIN ONE COPY FOR YOUR FILES.

   IF THE STUDENTS RESIDE IN A DISTRICT REPORTING IN ANOTHER COUNTY, SEND ONE COPY TO YOUR ESD.

INSTRUCTIONS FOR THE RESIDENT DISTRICT:

EXAMINE THE REPORT IN VIEW OF YOUR UNDERSTANDING OF THE SITUATION. IF CORRECT, SIGN THE FORM AND FORWARD ONE COPY TO THE ESD OF YOUR COUNTY. IF NOT CORRECT, RETURN TO THE ATTENDING DISTRICT WITH AN EXPLANATION OF THE INCORRECT DATA.

INSTRUCTIONS FOR ESD SUPERINTENDENT:

USE THE COPY SENT BY THE ATTENDING DISTRICT AS A GUIDE FOR CHECKING ON THE COMPLETED COPY TO BE RECEIVED FROM THE RESIDENT DISTRICT. PLEASE FORWARD TO THE DEPARTMENT OF EDUCATION ONE COPY OF EACH FORM AS CERTIFIED BY BOTH DISTRICTS.

IF YOU HAVE ANY QUESTIONS REGARDING THE COMPLETION OF THIS FORM, PLEASE CALL 378-3631.

SECTION I. STUDENTS FOR WHOM THE RESIDENT DISTRICT PAYS TUITION
OR WHO ATTEND ESD-FINANCED PROGRAMS

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_____
_____
_____
_____
_____
_____
_____
_____
_____

SECTION II. STUDENTS ATTENDING AS DEPENDENTS FROM A CHILD-CARING AGENCY

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_____
_____
_____
_____
_____
_____
_____
_____
_____

SECTION III.STUDENTS FOR WHOM THE RESIDENT DISTRICT DOES NOT PAY TUITION

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_____
_____
_____
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_____
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_____
_____
_____

OREGON DEPARTMENT OF EDUCATION   MANAGEMENT SERVICES DIVISION
700 PRINGLE PARKWAY SE   SCHOOL FINANCE & DATA INFORMATION SERVICES
SALEM, OREGON 97310

DISTRICT REPORT OF RESIDENT ENROLLMENT BY COUNTY LINES
FOR QUARTER ENDING DECEMBER 31, 19__

SEND TWO COPIES TO THE ESD SUPERINTENDENT WHO WILL FORWARD ONE TO OUR OFFICE NO LATER THAN
JANUARY 15.

DISTRICT NAME_____ NO._____ .

ESD TO WHICH DISTRICT REPORTS_____

INSTRUCTIONS:

REPORT RESIDENT ENROLLMENT (E1+E2+R3+R5) OF STUDENTS (K-12) WHO ARE LEGAL RESI-
DENTS OF YOUR DISTRICT AS OF DECEMBER 31, ACCORDING TO THE COUNTY OF LEGAL
RESIDENCY FOR EACH CHILD.

DO NOT INCLUDE: 1.   STUDENTS WHO ARE RESIDENTS OF ANOTHER DISTRICTS AND WHO
                        ATTEND YOUR DISTRICT'S SCHOOLS ON A TUITION OR TRADE BASIS.
                   2.   STUDENTS ATTENDING PRIVATE SCHOOLS.
                   3.   STUDENTS ATTENDING SCHOOLS IN ANOTHER DISTRICT.

THIS REPORT MUST BE FILED BY EVERY DISTRICT WITH TERRITORY LYING IN TWO OR MORE
COUNTIES, WHETHER OR NOT THERE ARE CHILDREN RESIDING IN EACH PORTION OF TERRITORY.

                                                        DECEMBER 31
                                                        RESIDENT
                                                        ENROLLMENT

DISTRICT NO. _____ COUNTY_____ (A) _____

DISTRICT NO. _____ COUNTY_____ (B) _____

DISTRICT NO. _____ COUNTY_____ (C) _____

                                        TOTAL   _____
                                                        (A+B+C)

                           CERTIFICATION:

                           I CERTIFY THAT THE ABOVE REPORT IS TRUE,
                           CORRECT, AND COMPLETE TO THE BEST OF MY
                           KNOWLEDGE.

                           SIGNATURE _____

                           TITLE_____

                           DATE_____   PHONE_____

FORM 581-3203 (3/81)

53.

OREGON DEPARTMENT OF EDUCATION
700 PRINGLE PARKWAY SE
SALEM, OREGON 97310

MANAGEMENT SERVICES DIVISION
SCHOOL FINANCE & DATA INFORMATION SERVICES

DISTRICT REPORT OF RESIDENT ENROLLMENT BY COUNTY LINES
FOR YEAR ENDING JUNE 30, 19___

SEND TWO COPIES TO THE ESD SUPERINTENDENT WHO WILL FORWARD ONE TO OUR OFFICE NO LATER THAN JULY 15.

DISTRICT, NAME _____ NO. _____

ESD TO WHICH DISTRICT REPORTS _____

INSTRUCTIONS:

REPORT RESIDENT ENROLLMENT (E1+E2+R3+R5) OF STUDENTS (K-12) WHO ARE LEGAL RESIDENTS OF YOUR DISTRICT AS OF JUNE 30, ACCORDING TO THE COUNTY OF LEGAL RESIDENCY FOR EACH CHILD.

DO NOT INCLUDE:
1. STUDENTS WHO ARE RESIDENTS OF ANOTHER DISTRICT AND WHO ATTEND YOUR DISTRICT'S SCHOOLS ON A TUITION OR TRADE BASIS.
2. STUDENTS ATTENDING PRIVATE SCHOOLS.
3. STUDENTS ATTENDING SCHOOLS IN ANOTHER DISTRICT.

THIS REPORT MUST BE FILED BY EVERY DISTRICT WITH TERRITORY LYING IN TWO OR MORE COUNTIES, WHETHER OR NOT THERE ARE CHILDREN RESIDING IN EACH PORTION OF TERRITORY.

JUNE 30
RESIDENT
ENROLLMENT

DISTRICT NO. _____ COUNTY_____ (A) _____

DISTRICT NO. _____ COUNTY_____ (B) _____

DISTRICT NO. _____ COUNTY_____ (C) _____

TOTAL _____
(A+B+C)

CERTIFICATION:

I CERTIFY THAT THE ABOVE REPORT IS TRUE, CORRECT, AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

SIGNATURE _____

TITLE _____

DATE _____ PHONE_____

FORM 581-3205 (3/81)

54

OREGON DEPARTMENT OF EDUCATION   MANAGEMENT SERVICES DIVISION
700, PRINGLE PARKWAY SE   SCHOOL FINANCE & DATA INFORMATION SERVICES
SALEM, OREGON 97310

BASIC SCHOOL SUPPORT FUND REPORT OF COMMUNITY COLLEGE INSTRUCTION

☐ FOR QUARTER ENDING DECEMBER 31, 19__
☐ FOR YEAR ENDING JUNE 30, 19__

ATTENDING IN: DIST. NAME   , COUNTY/
               AND NO._____ ESD_____

ENROLLED IN: COMMUNITY COLLEGE
               NAME_____

COURSE
TITLE(S): _____

NAME AND NUMBER OF RESIDENT DISTRICT	NO. OF STUDENTS	NO. OF COMM. COLLEGE INSTRUCTIONAL HOURS	FOR USE BY THE OREGON DEPARTMENT OF EDUCATION

CERTIFICATION BY ATTENDING DISTRICT AND COMMUNITY COLLEGE:

I CERTIFY THAT THE ABOVE REPORT IS TRUE, CORRECT, AND COMPLETE
TO THE BEST OF MY KNOWLEDGE.

_____   _____
SIGNATURE FOR ATTENDING DISTRICT   DATE

_____   _____
SIGNATURE FOR COMMUNITY COLLEGE   DATE

FORM 581-3207 (3/81)

55

THIS REPORT IS DUE 10 DAYS AFTER THE END OF THE SECOND QUARTER AND THE END OF THE YEAR.

OREGON ADMINISTRATIVE RULE 581-23-006 PROVIDES THAT THE ATTENDING SCHOOL DISTRICT MUST
REPORT STUDENTS ENROLLED IN DUAL-CREDIT COURSES MUTUALLY AGREED UPON BETWEEN A
LOCAL SCHOOL DISTRICT AND A COMMUNITY COLLEGE IF THE COMMUNITY COLLEGE WILL
CLAIM REIMBURSEMENT FROM THE COMMUNITY COLLEGE OPERATING FUND,

THE REPORT SHALL BE PREPARED BY THE LOCAL DISTRICT AND VERIFIED BY THE COMMUNITY
COLLEGE PRIOR TO SUBMISSION TO THE DEPARTMENT. EACH REPORT SHALL YIELD SUB-
TOTALS FOR RESIDENT AND NONRESIDENT STUDENTS BY DISTRICT.

TWO REPORTS SHALL BE REQUIRED EACH YEAR: THE FIRST COVERING THE QUARTER ENDING
DECEMBER 31 AND THE SECOND COVERING THE YEAR ENDING JUNE 30.

THE DEPARTMENT SHALL CONVERT TO ADM THE COMMUNITY COLLEGE INSTRUCTIONAL HOURS
REPORTED FOR EACH REPORTING PERIOD BY MULTIPLYING THE TOTAL HOURS OF INSTRUC-
TION BY .167 AND DIVIDING THE PRODUCT BY 55 FOR THE DECEMBER 31 QUARTERLY REPORT
AND BY 175 FOR THE JUNE 30 ANNUAL REPORT.

THE ADM COMPUTED SHALL BE DEDUCTED BY THE DEPARTMENT FROM THE ADM OF THE DISTRICT.

INSTRUCTIONS FOR THE ATTENDING DISTRICT:

1. INDICATE THE REPORTING PERIOD--EITHER THE QUARTER ENDING DECEMBER 31 (FOR THE
PERIOD FROM OCTOBER 1 THROUGH DECEMBER 31) OR THE YEAR ENDING JUNE 30 (THE
FIRST DAY OF SCHOOL THROUGH THE LAST DAY OF SCHOOL FOR THE YEAR).

2.A)ALL STUDENTS WHO ARE ENROLLED IN DUAL-CREDIT COURSES THAT ARE MUTUALLY AGREED
UPON BY YOUR DISTRICT AND THE COMMUNITY COLLEGE MUST BE REPORTED IF THE COM-
MUNITY COLLEGE IS CLAIMING STATE REIMBURSEMENT.

B)STUDENTS SHOULD NOT BE REPORTED IF: THE COMMUNITY COLLEGE WILL NOT CLAIM
REIMBURSEMENT; OR IF THE STUDENT PAYS TUITION FOR A COMMUNITY COLLEGE COURSE
THAT HAS NOT BEEN MUTUALLY AGREED UPON BY YOUR DISTRICT AND THE COMMUNITY COLLEGE.

3. ALL STUDENTS DESCRIBED IN 2.A) ABOVE MUST BE GROUPED BY RESIDENT DISTRICT.
USE THE FIRST LINE TO REPORT STUDENTS WHO ARE RESIDENT IN YOUR DISTRICT.) COMPLETE
A SEPARATE LINE FOR EACH DISTRICT THAT HAD STUDENTS ATTENDING YOUR DISTRICT ON A
DISTRICT-PAID TUITION BASIS.

4. RETAIN ONE COPY OF THE COMPLETED FORM FOR YOUR FILES. SEND ONE COPY TO THE
DEPARTMENT. SEND TWO COPIES TO THE COMMUNITY COLLEGE, ACCOMPANIED BY A LIST-
ING OF THE NAMES OF THE STUDENTS. THIS WILL FACILITATE VERIFICATION BY THE
COLLEGE. DO NOT SEND NAMES TO THE DEPARTMENT.

INSTRUCTIONS FOR THE COMMUNITY COLLEGE:

EXAMINE THE COMPLETED FORM IN VIEW OF YOUR UNDERSTANDING OF THE SITUATION.
IF CORRECT, COMPLETE YOUR PART OF THE CERTIFICATION AND FORWARD ONE COPY TO
THE DEPARTMENT. DO NOT SEND STUDENT NAMES.

IF THE DATA ARE NOT CORRECT, RETURN TO THE ATTENDING DISTRICT WITH AN EXPLANA-
TION OF THE INCORRECT DATA.

NAME & NO. OF ATTENDING DISTRICT

_____

ESD IN WHICH DISTRICT IS LOCATED

ESTIMATE OF ATTENDANCE OF
DEPENDENT STUDENTS FROM CHILD-CARING AGENCIES

FOR THE YEAR ENDING JUNE 30, 19___

1. ORS 339.165 - 339.185 STATES THAT SCHOOL DISTRICTS PROVIDING INSTRUCTION TO A NON-
   RESIDENT DEPENDENT CHILD AS A RESULT OF HIS/HER PLACEMENT IN A STATE APPROVED CHILD-
   CARING AGENCY SERVING SEVEN OR MORE CHILDREN MAY REQUEST TUITION PAYMENT FROM THE
   CHILD'S RESIDENT DISTRICT.

2. IN ORDER TO PROVIDE EACH DISTRICT WITH AN ESTIMATE OF THE ACTUAL BILLING IT WILL
   RECEIVE IN AUGUST, THE ATTENDING DISTRICT MUST SUPPLY INFORMATION TO THE DEPARTMENT
   FOR EACH DEPENDENT CHILD ATTENDING SCHOOL IN THE DISTRICT.

INSTRUCTIONS FOR COMPLETING BILLING FORMS

COLUMN 1: ENTER THE CHILD'S LEGAL NAME.
COLUMN 2: ENTER NAME AND NUMBER OF RESIDENT DISTRICT. (REFER TO DEFINITION OF ''RESI-
           DENT DISTRICT'' ON REVERSE SIDE OF THIS FORM)
COLUMN 3: ENTER PARENTS' OR LEGAL GUARDIAN'S ADDRESS AT TIME CHILD BECAME A WARD OF
           THE PUBLIC AGENCY.
COLUMN 4: COUNT THE NUMBER OF DAYS ATTENDANCE FOR EACH DEPENDENT CHILD FROM THE START
           OF THE SCHOOL YEAR (OR FROM THE TIME OF ENTRY, IF THIS IS LATER) TO DECEMBER 31,
           AND ESTIMATE THE DAYS ATTENDANCE FROM JANUARY 1 THROUGH THE CLOSE OF THE SCHOOL
           YEAR. FOR THOSE DEPENDENT CHILDREN WHO HAVE LEFT THE CHILD-CARING AGENCY,
           REPORT THE ACTUAL DAYS ATTENDANCE. (NOTE: THE LAW SPECIFIES USE OF ACTUAL
           ATTENDANCE, NOT MEMBERSHIP.)
ATTACH: A SIGNED REPORT (FORM 3191) ''PRELIMINARY CERTIFICATION BY CHILD-CARING FACI-
           LITY FOR DEPENDENT CHILDREN'' FOR EACH CHILD-CARING AGENCY SERVED BY YOUR
           DISTRICT.
REMINDER: A COMPLETED ''BASIC SCHOOL SUPPORT FUND REPORT OF NON-RESIDENT STUDENTS''
           (FORM 3202) NEEDS TO BE SENT TO EACH RESIDENT DISTRICT.

NAME OF STUDENT	NAME & NO. OF RESIDENT DISTRICT	PARENTS' OR LEGAL GUARDIAN'S HOME ADDRESS AT TIME STUDENT BECAME A WARD	PROJECTED DAYS ATTENDANCE
(1)	(2)	(3)	(4)

I CERTIFY THAT THE ABOVE REPORT IS TRUE, CORRECT, AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

_____   _____
SIGNATURE OF DISTRICT OFFICIAL   DATE

NAME OF STUDENT (1)	NAME & NO. OF RESIDENT DISTRICT (2)	PARENTS' OR LEGAL GUARDIAN'S HOME ADDRESS AT TIME STUDENT BECAME A WARD (3)	PROJECTED DAYS ATTENDANCE (4)
		58	

NOTE: ORS 339.165(3) DEFINES 'RESIDENT DISTRICT' AS THE SCHOOL DISTRICT IN WHICH THE PARENTS OR LEGAL GUARDIAN, IF ANY, OF THE DEPENDENT CHILD RESIDED AT THE TIME THE CHILD BE-CAME A WARD OF THE PUBLIC AGENCY. IF THE DEPENDENT CHILD HAS NO PARENTS OR LEGAL GUARDIAN OR NONE CAN BE LOCATED, THE CHILD SHALL BE CONSIDERED TO BE RESIDENT OF THE DISTRICT IN WHICH HE RESIDED AT THE TIME HE BECAME A DEPENDENT CHILD.

OREGON DEPARTMENT OF EDUCATION
SPECIAL EDUCATION DIVISION
700 PRINGLE PARKWAY SE
SALEM, OREGON 97310

PRELIMINARY CERTIFICATION BY CHILD-CARING FACILITY
FOR DEPENDENT CHILDREN

FOR THE YEAR ENDING JUNE 30, 19___

I, _____, REPRESENTING THE _____
   (NAME OF REPRESENTATIVE)   (NAME OF FACILITY)
HEREBY CERTIFY THAT THE AFOREMENTIONED FACILITY LOCATED IN _____
SCHOOL DISTRICT _____ COUNTY, IS AUTHORIZED TO PROVIDE CARE FOR
SEVEN OR MORE CHILDREN, AND THAT DURING THE ABOVE SCHOOL YEAR THE FOLLOWING CHILDREN WERE
PLACED IN THIS FACILITY BY A PUBLIC OR PRIVATE CHILD-CARING AGENCY. I FURTHER CERTIFY.
THAT THE DEPENDENT CHILDREN LISTED BELOW WERE LIVING IN THIS FACILITY DURING THE PERIOD'
OF TIME NOTED. TO THE BEST OF MY KNOWLEDGE THE INFORMATION BELOW REGARDING RESIDENCE OF
EACH DEPENDENT CHILD AT THE TIME HE/SHE BECAME A WARD IS CORRECT AND COMPLETE.

INSTRUCTIONS FOR COMPLETING BILLING FORM

COLUMN 1: ENTER THE CHILD'S LEGAL NAME
COLUMN 2: ENTER NAME AND NUMBER OF RESIDENT DISTRICT. (REFER TO DEFINITION OF ''RESI-
           DENT DISTRICT'' ON REVERSE SIDE OF THIS FORM)
COLUMN 3: ENTER PARENTS' OR LEGAL GUARDIAN'S ADDRESS AT TIME THE CHILD BECAME A WARD.
COLUMN 4: ENTER DATE CHILD ENTERED FACILITY.
COLUMN 5: ENTER DATE CHILD LEFT, IF APPLICABLE.

PLEASE RETURN COMPLETED FORM TO ATTENDING SCHOOL DISTRICT BEFORE JANUARY 31.

_____   _____
   SIGNATURE OF REPRESENTATIVE   DATE

NAME OF STUDENT (1)	NAME & NO. OF RESIDENT DISTRICT (2)	PARENTS' HOME ADDRESS AT TIME CHILD BECAME A WARD (3)	DATE ENTERED FACILITY (4)	DATE LEFT FACILITY (5)

FORM 581-3194 (3/81)

59

NAME OF STUDENT	NAME & NO. OF RESIDENT DISTRICT	PARENTS' HOME ADDRESS AT TIME CHILD BECAME A WARD	DATE ENTERED FACILITY	DATE LEFT FACILITY
(1)	(2)	(3)	(4)	(5)

RESIDENT DISTRICT: THIS ENTRY IS MANDATORY.   ORS 339.165(3) DEFINES ''RESIDENT DISTRICT'' AS THE SCHOOL DISTRICT IN WHICH THE PARENTS OR LEGAL GUARDIAN, IF ANY, OF THE DEPENDENT CHILD RESIDED AT THE TIME THE CHILD BECAME A WARD OF THE PUBLIC AGENCY. IF THE DEPENDENT CHILD HAS NO PARENTS OR LEGAL GUARDIAN, OR NONE CAN BE LOCATED, THE CHILD SHALL BE CONSIDERED TO BE RESIDENT OF THE DISTRICT IN WHICH HE RESIDED AT THE TIME HE BECAME A DEPENDENT CHILD.

DATE LEFT FACILITY: THE DATE ON WHICH THE DEPENDENT CHILD LEFT THE FACILITY IF HE/SHE TERMINATED RESIDENCE AT THE FACILITY PRIOR TO THE TIME THIS REPORT IS COMPLETED.

60

NAME & NO, OF ATTENDING DISTRICT

ESD IN WHICH DISTRICT IS LOCATED

FINAL REPORT OF ATTENDANCE OF
DEPENDENT STUDENTS FROM CHILD-CARING AGENCIES
FOR THE YEAR ENDING JUNE 30, 19____

ORS 339.165 - 339.185 STATES THAT SCHOOL DISTRICTS PROVIDING INSTRUCTION TO DEPENDENT CHILDREN AS A RESULT OF THEIR PLACEMENT IN A STATE APPROVED CHILD-CARING AGENCY LICENSED TO SERVE SEVEN OR MORE CHILDREN MAY REQUEST TUITION PAYMENT FROM EACH CHILD'S RESIDENT DISTRICT.

PLEASE PROVIDE THE FINAL BILLING INFORMATION TO THE DEPARTMENT OF EDUCATION FOR EACH DEPENDENT CHILD ATTENDING SCHOOL IN YOUR DISTRICT.

INSTRUCTIONS FOR COMPLETING BILLING FORMS

COLUMN 1: ENTER THE CHILD'S LEGAL NAME.
COLUMN 2: ENTER NAME AND NUMBER OF RESIDENT DISTRICT. (REFER TO DEFINITION OF ''RESIDENT DISTRICT'' ON REVERSE SIDE OF THIS FORM)
COLUMN 3: ENTER PARENTS' OR LEGAL GUARDIAN'S ADDRESS AT THE TIME THE CHILD BECAME A WARD.
COLUMN 4: COUNT THE NUMBER OF DAYS ATTENDANCE FOR EACH DEPENDENT CHILD FROM THE START TO THE CLOSE OF THE SCHOOL YEAR. (THE LAW SPECIFIES USE OF ACTUAL ATTENDANCE FIGURES, NOT MEMBERSHIP)

ATTACH: A SIGNED AFFIDAVIT (FORM 3194) ''CERTIFICATION BY CHILD-CARING FACILITY FOR DEPENDENT CHILDREN'' FOR EACH CHILD-CARING AGENCY SERVED BY YOUR SCHOOL DISTRICT.

REMINDER: A COMPLETED ''BASIC SCHOOL SUPPORT FUND REPORT OF NON-RESIDENT STUDENTS'' (FORM 3202) NEEDS TO BE SENT TO EACH RESIDENT DISTRICT.

NAME OF STUDENT	NAME & NO. OF RESIDENT DISTRICT	PARENTS' OR LEGAL GUARDIAN'S HOME ADDRESS AT THE TIME STUDENT BECAME A WARD	TOTAL DAYS ATTENDANCE
(1)	(2)	(3)	(4)

I CERTIFY THAT THE ABOVE REPORT IS TRUE, CORRECT, AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

_____   _____
SIGNATURE OF DISTRICT OFFICIAL   DATE

NAME OF STUDENT (1)	NAME & NO. OF RESIDENT DISTRICT (2)	PARENTS' OR LEGAL GUARDIAN'S HOME ADDRESS AT TIME STUDENT BECAME A WARD (3)	DAYS ATTENDANCE (4)
		62	

NOTE: ORS 339.165(3) DEFINES 'RESIDENT DISTRICT' AS THE SCHOOL DISTRICT IN WHICH THE PARENTS OR LEGAL GUARDIAN, IF ANY, OF THE DEPENDENT CHILD RESIDED AT THE TIME THE CHILD BE- CAME A WARD OF THE PUBLIC AGENCY. IF THE DEPENDENT CHILD HAS NO PARENTS OR LEGAL GUARDIAN OR NONE CAN BE LOCATED, THE CHILD SHALL BE CONSIDERED TO BE RESIDENT OF THE DISTRICT IN WHICH HE RESIDED AT THE TIME HE BECAME A DEPENDENT CHILD.

OREGON DEPARTMENT OF EDUCATION
SPECIAL EDUCATION DIVISION
700 PRINGLE PARKWAY SE
SALEM, OREGON 97310

CERTIFICATION OF CHILD-CARING FACILITY
FOR DEPENDENT CHILDREN

FOR THE YEAR ENDING JUNE 30, 19___

I, _____, REPRESENTING THE _____,
   NAME OF REPRESENTATIVE   NAME OF FACILITY
HEREBY SWEAR THE AFOREMENTIONED FACILITY IS LOCATED IN _____
SCHOOL DISTRICT, _____ COUNTY, IS AUTHORIZED TO PROVIDE CARE FOR SEVEN OR
MORE CHILDREN, AND THAT DURING THE ABOVE SCHOOL YEAR THE FOLLOWING CHILDREN WERE PLACED IN
THIS FACILITY BY A PUBLIC OR PRIVATE CHILD-CARING AGENCY. I FURTHER CERTIFY THAT THE DEPEND-
ENT CHILDREN LISTED BELOW WERE LIVING IN THIS FACILITY DURING THE PERIOD OF TIME NOTED. TO
THE BEST OF MY KNOWLEDGE THE INFORMATION BELOW REGARDING RESIDENCE OF EACH DEPENDENT CHILD
AT THE TIME OF HIS/HER ENTRANCE INTO THIS FACILITY IS CORRECT AND COMPLETE.

_____
NOTARIZED SIGNATURE OF REPRESENTATIVE

STATE OF OREGON

COUNTY OF _____

   ON THIS _____ DAY OF _____, 19___

_____ PERSONALLY APPEARED
AND ACKNOWLEDGED THE FOREGOING INSTRUMENT TO BE HIS/HER
VOLUNTARY ACT AND DEED.

_____
NOTARY PUBLIC OF OREGON
MY COMMISSION EXPIRES: _____

. NAME OF STUDENT	NAME & NO. OF RESIDENT DISTRICT	PARENTS' HOME ADDRESS AT TIME CHILD BECAME A WARD	DATE ENTERED FACILITY	DATE LEFT FACILITY
(1)	(2)	(3)	(4)	(5)

M 581-3194 (3/81)

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NAME OF STUDENT (1)	NAME & NO. OF RESIDENT DISTRICT (2)	PARENTS' HOME ADDRESS AT TIME CHILD BECAME A WARD (3)	DATE ENTERED FACILITY (4)	DATE LEFT FACILITY (5)

RESIDENT DISTRICT: THIS ENTRY IS MANDATORY. ORS 339.165(3) DEFINES ''RESIDENT DISTRICT'' AS THE SCHOOL DISTRICT IN WHICH THE PARENTS OR LEGAL GUARDIAN, IF ANY, OF THE DEPENDENT CHILD RESIDED AT THE TIME THE CHILD BECAME A WARD OF THE PUBLIC AGENCY. IF THE DEPENDENT CHILD HAS NO PARENTS OR LEGAL GUARDIAN, OR NONE CAN BE LOCATED, THE CHILD SHALL BE CONSIDERED TO BE RESIDENT OF THE DISTRICT IN WHICH HE RESIDED AT THE TIME HE BECAME A DEPENDENT CHILD.

DATE LEFT FACILITY: THE DATE ON WHICH THE DEPENDENT CHILD LEFT THE FACILITY IF HE/SHE TERMINATED RESIDENCE AT THE FACILITY PRIOR TO THE TIME THIS REPORT IS COMPLETED.

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NAME OF EDUCATIONAL PROGRAM

_____

NAME OF CONTRACTING LEA

ESTIMATE OF STUDENT MEMBERSHIP AND OPERATING EXPENSES
IN SPECIAL EDUCATION PROGRAMS

FOR THE YEAR ENDING JUNE 30, 19___

UNDER PROVISION OF ORS 343.305 - 343.307, PART OF THE COST OF EDUCATING OREGON RESIDENT STUDENTS IN CERTAIN EDUCATIONAL PROGRAMS SHALL BE BORNE BY THE COUNTY SCHOOL FUND OF THE COUNTY IN WHICH THE STUDENT IS RESIDENT.

THE LAW STATES THAT BY MARCH 1 THE DEPARTMENT OF EDUCATION SHALL NOTIFY EACH COUNTY HAVING SUCH RESIDENT CHILDREN OF THE ESTIMATED COST OF EDUCATING THE CHILDREN DURING THAT YEAR. TO DO SO, WE MUST HAVE YOUR BEST ESTIMATE OF THE FOLLOWING ITEMS OF INFORMATION NO LATER THAN FEBRUARY 1.

THE DATA GIVEN BELOW SHOULD BE FOR THE REGULAR SCHOOL SESSION ONLY. EXCLUDE SUMMER SCHOOL.

1. ESTIMATED NUMBER OF DAYS OF INSTRUCTION DURING THE CURRENT YEAR_____

2. ESTIMATED OPERATING EXPENSES OF THE EDUCATION PROGRAM DURING THE CURRENT YEAR:

EXPENDITURE ACCTS.	PROG. ACCT. NO.	SALARIES 100	EMPL. BENEFITS 200	PURCH. SERVICES 300	SUPPLIES & MAT. 400	542 & 600	TOTAL
INSTRUCTION	1000						
PUPIL SUPPORT SERV. GUIDANCE	2120						
INST. SUPPORT SERV.	2200						
SCH. ADMINISTRATION	2400						
OPERATION AND MAINTENANCE OF PLANT	2540						

SUBTOTAL .... $_____

LESS: TUITION RECEIVED .... _____

LESS: FEDERAL FUNDS (ONLY THOSE APPLICABLE TO
THE SCHOOL PROGRAM) .... _____

TOTAL .... $_____

_____   _____
SIGNATURE OF PERSON COMPLETING THIS REPORT   TELEPHONE NO.

65

3. ESTIMATED STUDENT MEMBERSHIP AND RESIDENCY.

ESTIMATED NO. OF STUDENTS	COUNTY OF RESIDENCY	ESTIMATED TOTAL DAYS MEMBERSHIP	FOR O.D.E. USE ONLY
	BAKER		
	BENTON		
	CLACKAMAS		
	CLATSOP		
	COLUMBIA		
	COOS		
	CROOK		
	CURRY		
	DESCHUTES		
	DOUGLAS		
	GILLIAM		
	GRANT		
	HARNEY		
	HOOD RIVER		
	JACKSON		
	JEFFERSON		
	JOSEPHINE		
	KLAMATH		
	LAKE		
	LANE		
	LINCOLN		
	LINN		
	MALHEUR		
	MARION		
	MORROW		
	MULTNOMAH		
	POLK		
	SHERMAN		
	TILLAMOOK		
	UMATILLA		
	UNION		
	WALLOWA		
	WASCO		
	WASHINGTON		
	WHEELER		
	YAMHILL		
	OUT-OF-STATE STUDENTS		
	TOTAL		

A STUDENT'S ''COUNTY OF RESIDENCY'' IS THE COUNTY IN WHICH THE PARENT OR PERSON IN PARENTAL RELATIONSHIP TO HIM RESIDES ON THE DATE THE CHILD ENROLLS IN THE EDUCATIONAL PROGRAM.   IF THE CHILD IS A WARD OF THE COURT OR AN APPROVED CHILD-CARING AGENCY, HE SHALL BE CONSIDERED RESIDENT OF THAT COUNTY IN WHICH THE PARENT OR PERSON IN PARENTIAL RELATIONSHIP TO HIM RE- SIDED ON THE DATE THE CHILD BECAME A WARD. (ORS 343.305 (2)(B))

NAME OF EDUCATIONAL PROGRAM

NAME OF CONTRACTING LEA

FINAL REPORT OF STUDENT MEMBERSHIP AND OPERATING EXPENSES
IN SPECIAL EDUCATION PROGRAMS
FOR THE YEAR ENDING JUNE 30, 19___

UNDER PROVISION OF ORS 343.305 - 343.307, PART OF THE COST OF EDUCATING OREGON RESIDENT STUDENTS IN CERTAIN EDUCATIONAL PROGRAMS SHALL BE BORNE BY THE COUNTY SCHOOL FUND OF THE COUNTY IN WHICH THE STUDENT IS RESIDENT.

THE LAW STATES THAT BY AUGUST 15, THE OREGON DEPARTMENT OF EDUCATION SHALL NOTIFY EACH COUNTY HAVING SUCH RESIDENT CHILDREN OF THE COST OF EDUCATING THE CHILDREN DURING THAT YEAR. TO DO SO, WE MUST HAVE THE FOLLOWING ITEMS OF INFORMATION NO LATER THAN JULY 15.

THE DATA GIVEN BELOW SHOULD BE FOR THE REGULAR SCHOOL SESSION ONLY. EXCLUDE SUMMER SCHOOL.

1. TOTAL NUMBER OF DAYS OF INSTRUCTION DURING THE SCHOOL YEAR _____

2. ACTUAL OPERATING EXPENSES OF THE EDUCATIONAL PROGRAM:

EXPENDITURE ACCTS.	PROG. ACCT. NO.	SALARIES 100	EMPL. BENEFITS 200	PURCH. SERVICES 300	SUPPLIES & MAT. 400	542 & 600	TOTAL
INSTRUCTION	1000						
PUPIL SUPPORT SERV. GUIDANCE	2120						
INST. SUPPORT SERV.	2200						
SCH. ADMINISTRATION	2400						
OPERATION AND MAINTENANCE OF PLANT	2540						

SUBTOTAL .... $_____

LESS: TUITION RECEIVED .... _____

LESS: FEDERAL FUNDS (ONLY THOSE APPLICABLE TO
THE SCHOOL PROGRAM) .... _____

TOTAL .... $_____

I HEREBY CERTIFY THAT THE FOREGOING INFORMATION IS TRUE AND CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

_____   _____
SIGNATURE OF PERSON COMPLETING REPORT   TELEPHONE NO.

FORM 581-3198 (3/81)

3. STUDENT MEMBERSHIP BY COUNTY OF RESIDENCY.

PLEASE LIST ALL STUDENTS FROM BAKER COUNTY FIRST, THOSE FROM BENTON COUNTY NEXT, AND SO
ON THROUGH YAMHILL COUNTY. THEN LIST ALL OUT-OF-STATE STUDENTS. USE CONTINUATION
PAGES, IF NEEDED. FOR EACH STUDENT, INCLUDE THE HOME ADDRESS AT THE TIME OF ENTRANCE
INTO THE PROGRAM. A STUDENT'S ''COUNTY OF RESIDENCY''IS THE COUNTY IN WHICH THE PARENT
OR PERSON IN PARENTAL RELATIONSHIP TO HIM RESIDES ON THE DATE THE CHILD ENROLLS IN THE
EDUCATIONAL PROGRAM. IF THE CHILD IS A WARD OF THE COURT OR AN APPROVED CHILD-CARING
AGENCY, HE SHALL BE CONSIDERED RESIDENT OF THAT COUNTY IN WHICH THE PARENT OR PERSON IN
PARENTAL RELATIONSHIP TO HIM RESIDED ON THE DATE THE CHILD BECAME A WARD.

STUDENT'S NAME	COUNTY OF RESIDENCY AND HOME ADDRESS	TOTAL DAYS MEMBERSHIP

ABSTRACT
                To what extent can school principals provide
effective educational leadership? Research shows that, contrary to
textbook images, principals react to their circumstances instead of
controlling them and that they spend most of their time on
administrative, not instructional, matters. Further entrenching
principals in their administrative role is the fact that the
principalship is legitimized more by its position in a bureaucratic
hierarchy than by any instructional expertise on the part of the
principal. However, principals could base their legitimacy on
instructional expertise. To do so they must take a more active role
in instruction; recent research, for instance, shows that effective
schools' principals are more active in instructional supervision,
evaluation, and leadership. A redefinition of the principal's role
will mean that principals must acquire new skills and practice closer
overseeing and improvement of instruction. This instructional
supervision must be based on three points: the classroom should be
the focus of activity, teachers' and pupils' concerns must take
priority, and principals should give teachers objective feedback on
their classroom work. (Author/RW)

THE AUSTRALIAN ADMINISTRATOR

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One of the declared purposes of The Aust-
ralian Administrator is to provide a forum for the
informed discussion of matters which focus upon
the administration of schools. Accordingly, this
first issue opens up the controversial topic of the
rightful role of the school principal.

If this first issue generates some heat, then
well and good! It may well be only after the gener-
ation of the white heat of intellectual turmoil that
we are able to see light at the end of the tunnel,
on matters such as this one.   (Ed.).

THE PRINCIPAL AS AN EDUCATIONAL
LEADER: TO BE, OR NOT TO BE?

W. John Smyth

INTRODUCTION

If the principals of Australia's 9,444 government
and non-government primary and secondary schools
were to mysteriously disappear while returning
from a national conference, what would be the
costs? Obviously there are no simple answers. To
the bereaved families, the grief and hardship
would be considerable if not immense, and the
social costs would be high. But what of the edu-
cational costs to the nation, the schools and our
young people in terms of quality of education?
Would the blow be so severe as to close schools
for a protracted period? Would the loss seriously
and permanently rupture the fabric of Australian
life? Alternatively, would schools suffer the in-
convenience, adjust to the modification of their
staffing schedules and conduct "business as
usual"?

This daunting, if hypothetical, scenario is worth
consideration in looking at the contemporary role
of the school principal in the education of our
young. At the outset, it should be noted that the
issue of leadership in schools is not raised here
with a view to disparaging existing practises;
rather, the purpose is to provide constructive
criticism for the ultimate improvement of teaching
and learning.

The basic question being addressed in this paper
is a significant one: to what extent does the
principal of a school provide educational leader-
ship that has a discernible impact on the learning
of pupils? The title of this paper suggests that
some doubt exists on this matter. It shall be
argued here that many schools are in need of
"educational" leadership that relates directly to
the instructional and teaching function of schools.
Arguments to the contrary by principals, based on
claims of alleged lack of time or inadequate ex-
pertise, in many instances amount to rationalisa-
tions and admissions by principals that they have
forgotten the primary purpose for which schools
exist, namely, to enhance pupil learning.

The remainder of this paper will look briefly at
some of the research that has sought to establish
what is the current role of the school principal;
the need for a more enlightened form of educat-
ional leadership; a possible re-definition of the
principal's role; and an approach that might be
useful.

THE PRINCIPAL'S ROLE

The traditional literature in educational adminis-
tration adopts a hortative or prescriptive approach

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Australian Administrator.

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to the role of the school principal. The analogy is frequently drawn between the manager of an industrial concern, and the principal of a school. Accordingly, the principal is urged to concern himself with such management activities as planning, co-ordinating, directing, controlling, communicating and evaluating, all of course within a suitable human relations context.

Placing aside for the moment the similarities and differences between industrial and educational organisations, close critical analyses have revealed that neither managers (Mintzberg, 1975) nor principals (Wolcott, 1973) engage extensively in the logical prescriptions set down in the advocacy literature.

What principals *actually* do is noticeably at variance with claims as to what they should do' Observational research studies (Wolcott, 1973, O'Dempsey, 1976; Peterson, 1977) have found principals engage in activities of extremely short duration, that are highly varied in nature, and which change with great rapidity during the course of a day. For a large portion of the time the principal responds to contacts initiated by others, has relatively little "free" time, and strategically, the principal operates close to the administrative centre of the school, handling problems and crises that are brought forward. Particularly noticeable in the research studies is any extensive involvement by principals in the technical core activity of the school — namely, teaching and learning in classrooms. Even teaching principals were found (O'Dempsey, 1976) to be pre-occupied with "administrative pathologies" — the mundane, the repetitive and the trivi■■■ as well as tasks which nobody else would ■■■■■■■assie's (1978) national study of 220 pr■■■■■■■'s found that running the school smoothly and efficiently was the main duty imposed on principals by bureaucratised Education Departments, and was the main service principals saw themselves as providing to students and staff.

The reality of the principal's role is determined not only by the perceptions and expectations of others and by what the principal actually does in the job, but also by personal views held as to the nature of the work process itself. Mintzberg (1975) found the effectiveness of the manager in industry was substantially influenced by his insight into his own work. Performance depended to a large extent on how well the manager understood and responded to the pressures and dilemmas of the job. Managers who were able to be introspective about their work with a clear sense of organisational purpose were more likely to be effective at their jobs. We might suggest likewise for school principals!

An interesting and novel perspective on the principalship is presented by Wake (1979), who advances two reasons for the functional existence of "the office" (in the bricks and mortar sense) within the school. Firstly, for conducting private interviews, and secondly for undertaking administrative tasks without frequent interruptions. Wake suggests that the reverse may equally be true — the principal's administrative duties might be a consequence of his having a private office with clerical and support facilities. Provision of individual offices and secretaries to all teachers would certainly reduce the administrative tasks of the principal as teachers undertook these tasks themselves. Functional reasons aside, the other purpose of the principalship within the school is ascribed by Wake to a "symbolic expression, of an invisible social hierarchy" (p. 15), imposed from outside, in which the principal is located at the top. Accordingly, he concludes: *The meaning of the principal's role in the school is thus centered around his occupancy of the office; his authority is derived from the occupancy of that office rather than from the authority of ■■■■■rior knowledge or even indispensable function.■■■■■■als are indispensable only in a formal hi■■■■■■organisation.* (p. 15)

Central to the issue of the principal's role is the source of his/her authority. Contrary to conventional wisdom, it is no longer fashionable to envisage authority as "coming down from above". Rather, it depends on how orders and communications are perceived by others. Authority only really exists where individuals are prepared to accept that another has the right to influence their behaviour in some fashion.

In the search for an acceptable authority base for leadership by principals, French and Raven's (1959) five sources of power are useful.
Reward power they describe as the capacity to provide positive tangible reinforcement for acceptable follower behaviour; *co-ercive* power, refers to the ability to inflict negative or punitive sanctions; *legitimate* power derives from legislative enactments; *expert* power is based on the possession and demonstration of special skills and knowledge. As applied to schools, legitimate and expert power are the most salient.

Legitimate power within a school attaches to the formal bureaucratic structure of the school. It ranges from government proclamations and orders, through to the local rules and regulations of the individual school. This represents the legal authority of the school, and of the principal in particular, to act on certain matters. Expert power, on the other hand, derives from the individual teaching and administrative skills and expertise

'of the principal. Authority: in this instance derives from specialist knowledge based on training, which the principal brings to the situation. It is the co-existence of these two forms of authority within schools that leads to an uneasy coalition.

A MORE ENLIGHTENED SENSE OF EDUCATIONAL LEADERSHIP

Authority and autonomy in decision making lie at the centre of the controversy over the role of the principal. Survey research indicates a preparedness by teachers to allow principals to act on their behalf in matters of resource acquisition and handling, as well as in public relations and in dealings with the community, the council and the Department. What is much less clear is the willingness of teachers to readily accept incursions by the principal into activities requiring specific expertise in teaching and classroom matters. At the same time, principals are being urged (Weldy, 1979) to take a more active role in the instructional aspect of the school: Paradoxically, it is also being claimed (Fallon, 1979) that this is beyond the capacity of the principal to perform.

Leaving aside the rhetoric, Goodlad (1978) comes close to the heart of the matter in his assertion that educational administrators generally seem to have lost a sense of what their profession is about: "In education, it is a long time since we paid homage to the essence of our profession" (p. 322). He was referring particularly to an excessive concern with matters administrative, rather than issues educational. This tide, according to Goodlad, appears to be turning. Many educational administrators - in rapidly growing numbers - want to put education at the centre again, want to become educational leaders again, not mere managers. (p. 324)

Scholars in educational administration in the past have either been oblivious to the possibility of any relationship between the activities of the principal and pupil learning, or completely daunted by the multiplicity of intervening variables constituting causal networks. Despite the awesome nature of the task, research is beginning to proceed in this area. A study by Wellisch, MacQueen, Carriere and Duck (1978) designed to trace the possible effects of principal behaviour on pupil learning, found gains in pupil achievement in schools where principals: (a) felt strongly about instruction; (b) communicated their views on instruction to teachers; (c) took responsibility for co-ordinating instruction, and (d) regularly reviewed and discussed teaching in their schools with teachers. Observational studies are beginning to provide additional support, as well.

This research, albeit limited, is important because it substantiates the long-held intuitive belief of many practitioners that the principal should not only be a highly competent teacher able to demonstrate this expertise to teachers, but that he/she should also be actively involved in assisting teachers to modify the curriculum to better suit the needs of children. Claims of inadequate time to exercise instructional leadership have been described by Fallon (1979) as a comfortable excuse by principals "to avoid one of the toughest jobs in the world: assessing teaching/learning situations and suggesting ways of improving them" (p. 68). At least one principal (Weldy, 1979) made his own position clear: "Principals must furnish instructional leadership whether they want to or not. If they don't know how, they must learn. If they don't have time, they must find time" (p. 72).

As a precursor to the required change in role of many principals, perhaps we need to follow Grassie's (1979) suggestion of changing the basis of the analogy we use to examine the principalship. Maybe we have done the school principal a grave disservice by likening the role to that of a manager in industry. Instead, we should be drawing a parallel with the front-line supervisor in industry who is "highly skilled in the process he is supervising" (p. 6). By emphasising the skills of teacher supervision and evaluation (in its helping sense) we may be able to change the role of principals from that of "odd-job men doing the host of maintenance tasks any organisation throws up" (p. 6).

TOWARDS A CHANGE OF ROLE

As this paper has suggested, there is a need to carefully re-examine the current role of the school principal. It was not the intention of this paper to provide prescriptive answers to this pressing educational problem. Nevertheless, if significant, meaningful and lasting changes are to be made so that the professional lives of principals are made more rewarding and schools better places of learning, then clear directives will need to be forthcoming on how to effect these changes.

Any suggestion of a large-scale return of principals to actual classroom teaching, is obviously out of the question. Likewise, the proposition that principals become instant curriculum experts, or consultants thoroughly conversant with the confusing body of findings on research on teaching, are equally implausible. Rather, what is required is something which is both more comprehensive and more subtle!

To qualify for the title of educational leader the school principal of the future will need to concentrate on acquiring new skills and orientations.

While having one eye firmly fixed on the expectations and needs of the wider community, a principal deserving of the title of leader will have to have the other eye just as firmly fixed on the teaching, instructional and pedagogical aspects of the school. This will necessitate much closer supervision and evaluation of teachers and programs, in a constructive and helping context, than has been customary in the past. As a guide, three factors should be paramount in whatever scheme is proposed for use by principals in helping teachers to improve instruction. Firstly, the classroom should be the arena or focus for any activity; secondly, the concerns and issues of importance to teachers and pupils should feature prominently; and finally, the teacher should be provided with objective feedback as to the quality of his/her classroom performance. While not guaranteeing instant success, if adopted these guidelines have the ingredients for establishing a basis upon which the principal can begin to establish and assert a position of true professional leadership in the school (Smyth, 1980).

CONCLUSION

This paper began with a rhetorical question that emerged from a hypothetical scenario: can the school principal provide educational leadership of a kind that matters?

The analogy of the principal as a "manager" engaging in rational prescriptive procedures, was rejected in favour of research which portrayed the principal as a *reactor* to, rather than a *controller* of, the circumstance in which he/she was embedded. The bureaucratic means by which the office was derived was suggested as contributing to a further entrenchment in that role. Rather than authority being derived from expertise, it was seen to be rooted in a form of legitimacy bestowed by bureaucratic mentors.

The key to the lost cause of leadership in schools was envisaged as lying in matters educational rather than administrative. Limited research supports the intuitive view that pupils attain higher levels of achievement in schools where the principal is more involved, and is seen to be more concerned with, the instructional program of the school. Perhaps we should begin to think of the principal *less* in terms of a "manager" and *more* in terms of a "supervisor" armed with a definitive body of expertise and skills in classroom analysis, equipped and able to help in the improvement of teaching and learning. The answer to the question implied in the Shakespearian sub-title to this paper is that principals *can* provide a style of educational leadership that makes a difference in schools.

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FORTHCOMING ISSUES

- A walk on the wild side: field trips for the educational administrator.
- Educational change: two skyrockets, five bungers and a jumping jack.
- Planning and time management, keys to effective educational leadership.
- Are principals free to lead?
- Profiles of Australian school principals.