ABSTRACT
                This paper reviews the literature on the
psychological and social processes involved in the integration of
women into management positions. The author concentrates on two
areas. First is the entry of women into management (including women's
career choices, choice of organization, and the effects of these
choices on the organization. These effects include the impact on
recruitment procedures and male job applicants). The second area
concerns the socialization and development of women managers once
they have gained entry. The research in this area deals with the
personal needs, values, and skills of women managers, as well as with
the physical-technological environment and the social-interpersonal
environment that women managers must face. The author suggests that
researchers should conduct more longitudinal field research and
should investigate the effects of women in management on the society
as a whole. (Author/DS)

Integration of Women into Management Positions:

A Research Review

Presented at the 84th Annual Convention of the

American Psychological Association,

Washington, D.C., September, 1976

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Integration of Women into Management Positions:

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The purpose of this paper is to review the literature on the psychological processes surrounding the integration of women into management. The background research for this paper was limited to articles published in the past few years that had implications for a psychological analysis of the area. Reviews of research published prior to 1973 can be found in Gordon and Strober (1975), O'Leary (1974), and to some extent Terborg and Ilgen (1975).

To provide some semblance of order to the wide variety of studies, topics, etc., that were encountered in the review, I have chosen to consider two broad issues. The first concerns the entry of women into management; the second concerns the socialization and development of women once they have gained entry.

Entry

The entry of women into management positions can be examined from several perspectives. These include: (1) choice of a career or occupation, (2) choice of a particular organization within which to work, and (3) the effects of these choices on other variables in the system such as male job applicants and recruitment practices of the organization.

Theory and research on career choice points to the importance of a person's self-concept as a determiner of vocational preferences. Other things being equal, people will choose careers which are consistent with their beliefs about themselves (Korman, 1970; Super, 1953). In the past, women have been denied the opportunity to gain entry into management jobs. Also, the existence of a "male managerial model" perpetuates societal norms that women should not

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or can not be successful in management. Thus, we find that women as a group have a self-image which is not consistent with that assumed necessary for management. As reported by McClelland (1965) and others (cf., Jacklin & Maccoby, 1975; O'Leary, 1974), women as a group describe themselves as different from or even opposite to men as a group on presumed requisite management traits. Schein (1973, 1975) has shown that these beliefs are strongly held by male managers and female managers as well.

One area for research then may be the examination of the self-concepts of women who do choose careers in management. Why do some women develop self-concepts consistent with management careers?

Evidence exists which suggests that women choosing "male" careers were raised in families where the mother worked full-time and where sex-typed behaviors were not emphasized (Almquist, 1974; Vogel, Broverman, Broverman, Clarkson, & Rosenkrantz, 1970). It would appear that to the extent women and men develop a gender free self-concept that more women will choose careers in business and management. The increase of women in business courses, MBA programs, and even little league holds promise of a changing self-concept at least among some women. As an added benefit, we would expect to find an increase in the number of males entering traditionally female occupations with occupational sex-typing becoming less pervasive.

Perhaps of more immediate concern, however, might be the effects of blocked career pathways. Just because some women develop self-images consistent with management jobs does not guarantee their entry into these jobs. Schein (1971) noted that she was advised to contact Dr. Joyce Brothers rather than consider a job with that organization as an industrial psychologist. In a more serious vein, Weisman, Morlock, Sack, and Levine (1976) found that

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counseling given to females who were denied entry into medical school was
different from that given to males who were denied entry into medical school.
Men were encouraged to re-apply to more schools or to consider a Ph.D. program
in a related field. Women were warned of the difficulties that would lie
ahead if they chose to persist in medicine and were encouraged to change their
career aspirations. The consequences of these practices, if continued, might
be to lower the self-concepts of the affected women, and to perpetuate sex-
typed occupations. Of interest, however, were their findings that women who
reported themselves as in agreement with the women's rights movement showed
a degree of persistence in having a medical career similar to that of males.
Clearly more research should be directed toward the causes, occurrences, and
consequences of such career counseling for both females applying for masculine
jobs and males applying for feminine jobs.

This raises a point I intend to emphasize throughout this paper. We
should not limit our research attention only to women and to attitudes men
have about women. Rather, given an open system with feedback loops and in-
terdependencies, it might be valuable to consider whether the career aspirations
and job choices of women have any effect on the career aspirations and job
choices of men. For example, Touhey (1974a, b) reported that the increase of
women into previously male dominated occupations resulted in a decrease in the
rated prestige and desirability of those occupations, while the increase of
males into female occupations resulted in an increase in the rated prestige
and desirability of those occupations. The integration of women into masculine
jobs then may influence the available labor pool of men who choose to enter
that occupation. Does the admittance of women into West Point affect the
choice of men to attend West Point, and if so, what are the consequences of ·

this self-selection for all job applicants and the organization?

Given that a woman has chosen a career in management, the next step is to gain entry into an organization of her choice. Important factors here include evaluation of the organization by the woman applicant and evaluation of the woman applicant by the organization. Most of the research seems to address the latter.

On the positive side, evidence indicates that predictors such as biographical data and assessment center ratings, which have been validated on males, also predict managerial performance for females (Huck & Bray, 1976; Moses & Boehm, 1975; Nevo, 1976). There is, however, some question as to the comparability of criterion ratings across sexes (Nevo, 1976). This is especially relevant for subjective ratings as will be addressed later. But generally speaking, the inability to predict female performance does not appear to be a barrier to the entry of women into management.

On the other hand, we have somewhat of a contradiction in that several studies have shown that women are perceived to be lacking in requisite managerial traits and to be limited in potential to perform various behaviors. The existence of these stereotypes are frequently invoked as explanations for the findings that women are rated less desirable for management positions than men (cf., Bowman, Worthy, & Greyson, 1965; Cecil, Paul, & Olins, 1973; Cohen & Bunker, 1975; Dipboye, Fromkin, & Wiback, 1975; Rosen & Jerdee, 1974; Schein, 1973, 1975; Terborg & Ilgen, 1975).

While not questioning these findings, there are two alternative explanations other than that women are perceived to be limited in required traits/ behaviors. The first concerns the manner in which stereotypes are measured. In some studies, respondents are asked to describe the "typical female" or

the "typical manager," etc. In other studies, respondents may only be told
that the applicant is a woman for a white collar job. As stated by O'Leary
(1974) and others (cf., Brigham, 1971), the use of different instructional
sets to elicit stereotypic profiles or evaluative responses may produce dif-
ferent results. For example, Brigham (1971) in discussing the measurement of
ethnic stereotypes stated that asking about the "typical black" and the
"typical white" confounds race with socio-economic status. When these are
varied systematically, socio-economic status accounts for more response
variance than race. Similarly, asking about the "typical woman" and the
"typical manager" confounds sex with occupation since most managers are males.
Consider the different profiles that might be provided to the instructional
set of "typical woman" and "typical woman MBA." The "typical woman MBA" may
elicit the same profile as the "typical male MBA." Therefore, while women
as a group may for a variety of reasons be perceived as displaying various
traits with less frequency than men as a group, this does not mean that the
subset of women who have demonstrated management career aspirations are seen
as being deficient in these requisite management characteristics.

As a final comment on the issue of sex-stereotypes and discrimination,
several writers in the field of attitudes and behaviors state that general
group stereotypes are probably not related to the beliefs about particular
members of that group just as general attitude measures do not predict specific
attitudes or behaviors toward any particular object (Ajzen & Fishbein, 1973;
Brigham, 1971; Feldman & Hilterman, 1975). Rather, for stereotypes to be
useful, we need to determine the intra-personal and situational conditions
under which clearly delineated attitudes do and do not relate to behavior
toward individual group member. (Terborg, Peters, Ilgen, & Smith, in press).

For example, Rosen and Jerdee (1974) reported that stereotypes appear to have little impact on personnel decisions when specific rules are operative. Similarly, Terborg and Ilgen (1975) found that attitudes toward women as managers were related to subsequent behaviors only in situations where little information about the female was provided.

A second explanation for the findings that women are rated as less desirable for management positions involves not the belief that women lack the abilities and traits necessary for success, but rather the fear that other members in the organization will not accept women in positions of authority. Bowman et. al. (1965) found that even when women were perceived as capable, they were not judged as desirable for management because of the anticipation of resistance by co-workers. Consider the possibility of an American woman petroleum engineer supervising the work of Arab males in the Middle East. Consider further, if you will, the ramifications if this woman were Jewish. The point is that future research must be designed to determine the reasons why women are rated less desirable for management rather than simply demonstrating the occurrence. Such research would allow for affirmative action programs to be designed with greater direction and focus.

Earlier it was stated that research on the entry of women into management positions also requires that factors associated with the woman's evaluation of the organization be studied. This is important for at least two reasons. First, Terborg and Ilgen (1975) suggested that one subtle but effective means of denying women entry into an organization would be to offer lower salaries to women applicants. The intention being to let the applicant choose not to accept the job offer. In this instance the organization appears to comply with EEOC guidelines concerning minority employees since an offer was extended.

In reality, though, this form of discrimination would rarely occur given the aggressive prosecution record of the EEOC. However, it has been suggested by economists and others (cf., Rosen & Jerdee, 1975; Treiman & Terrell, 1975) that lower salaries offered to women are justified for economic reasons and do not represent discrimination. The logic is that women as a group are less likely to provide a return on the company's recruitment and training costs since women terminate employment sooner than men. Simply stated, women are worth less from a cost/benefit standpoint.

The fallacy with this argument is twofold. First, studies have found that women do not take more sick leave, terminate sooner, etc. (East, 1972). Second, even if they did, the reason for this behavior may reside in the lower salaries women are paid. If women perceive their rewards as inequitable, then they should be less likely to remain with the organization. Similar findings have been reported for men (Dansereau, Cashman, & Graen, 1973; Lawler, 1971). Thus, while women may display the behaviors which seem to justify their lower salaries, they are in fact victims of unfair employment practices. Although women still lag behind men in salaries (Treiman & Terrell, 1975), recent statistics compiled by the College Placement Council on 1976 college graduates show that in technological fields women are being offered higher salaries than men. It would now be interesting to see if male applicants display the same behaviors of high turnover, etc., which led economists to state that women were worth less when considering potential returns on investments.

Turning to factors other than salary, the reviewed literature contained no studies which examined the processes associated with a woman's job choice. While some research has been done with male MBA's (cf., Lawler, Kuleck, Rhode,

& Sorensen, 1975), little is known about such factors as (1) number of women in management, (2) past utilization of women by that organization, and so forth. Research needs to be done wh h specifies how women choose a company. This may be critical if such things as the availability of female role models has an effect on the socialization and development of women managers.

Finally, recent statistics (College Placement Council) show that job offers to women with college degrees are increasing at a faster rate than offers to men with college degrees. Increasing numbers of women applicants coupled with a lack of managerial talent and legal pressures requiring the integration of women into all levels of the organization suggest that gaining entry into management is not the barrier that it was a few years ago. Rather, the problem is to assure that the new woman manager will be given the opportunity to make a contribution to the organization and to develop her own skills and abilities.

Socialization and Development

Regardless of whether a woman is hired from outside the organization or promoted from within, she faces a new environment and must learn how to behave effectively in that environment. New employees of either sex must be properly socialized if they are to fit in with the established functioning of the existing work unit.

Important factors in this socialization process are (1) the person system of the new employee, (2) the physical-technological environment associated with the job, and (3) the social-interpersonal environment of the work unit (cf., Graen, 1976; McGrath, 1976). The person system refers to the needs, values, expectations, self-image, skills, etc., that the new manager brings with her to the job. The physical-technological environment includes the

skill/behavioral demands of the job or task to be performed. The social-interpersonal environment refers to the expectations that relevant others (peers, superiors, subordinates) have concerning the new manager's behavior, temperament, and work patterns.

Effective socialization is achieved when the new employee learns what is expected of her from the task environment and the interpersonal environment, and then can behave effectively in this role in a manner consistent with her own person system. Actions discrepant from expectations may elicit additional pressures to conform, may alter the content of the sent expectations, or some combination of both. As pointed out by Graen (1976) it is important to distinguish between role-taking and role-making. The former involves the reception and compliance of the sent role from one's role set. The latter takes into account the ability of the role incumbent to bring about changes in the expected behavior pattern held by the role set.

The development of the new employee into a contributing member of the organization is a by-product of a successful socialization process. This comes about through the attainment of meaningful goals by independent effort and utilization of one's skills and abilities (Hall, 1971). The employee is provided with opportunities to achieve and to master new skills. This fosters a positive self-image and tracks the employee into a cycle of goal attainment.

Malfunctions in this socialization process can arise from several sources and would become manifest as dysfunctional behaviors, lack of skill utilization, lowered self-image, and perhaps termination of employment or promotion into dead-end jobs. To the extent that opportunities are denied, expectations and behaviors from one source are in conflict with expectations and behaviors from another source, or skill and training are deficient; the new employee will encounter resistance. This places stress not only on the

effected new employee, but on other components in the larger system as well
(cf., Alderfer, 1971).

Given this conceptualization of employee socialization and development,
and the importance of the interchange among the person system, the technolo-
gical environment, and the interpersonal environment, we can better evaluate
existing research on the integration of women into management. The following
discussion will consider each of these systems/environments as unique and
interactive sources of influence on the socialization and development process.

First, past research has not sufficiently examined the influence of the
technological environment on the socialization of women managers. Just as
co-workers communicate their expectations concerning appropriate behaviors
to the new employee, the technological requirements of the job also may be
thought to communicate expectations of appropriate skills, abilities, and
behaviors. The new manager must possess the technical expertise required of
her job. Problems arise when women are placed on jobs for which they have no
technical knowledge and experience, and are denied opportunities to acquire
this needed expertise.

In theory, such mis-matches should rarely occur if accepted methods and
techniques of personnel selection and placement are followed. However, many
organizations are faced with the problem of integrating women into management
at all levels in the organization. The present lack of experienced women
managers forces organizations to instigate "crash" programs of management de-
velopment. Unfortunately, these programs are often nothing more than placing
a reasonably bright woman into management, regardless of her experience or
training. Consider the consequences of this statement: "Yesterday she didn't
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even know how to spell merchandise and today she is my merchandising manager."

Such token placement of unqualified women will have effects on the woman's
own person system and on other components in the larger system. Resentment
by more tenured and qualified males, withholding of technical and emotional
support, even direct attempts to assure her failure may result. The young
MBA who is immediately placed in a position of authority over older more
experienced workers faces a "show me what you can do" attitude from these
passed over subordinates. In the case of a woman, the need to demonstrate
that she is capable may be even more significant. Her high visibility will
most likely magnify any mistake she makes. The list could continue, but the
point is that almost no research to date has focused on the consequences to
the woman and her colleagues of a mis-match between the woman's skills,
abilities, and experience and the requirements of the job in which she is
placed.

The woman manager's own person system represents a second important
factor with regard to her socialization and development. To the extent that
women have different values, motivations, self-images, and so forth than men,
they may experience different pressures during the socialization process.

A search of the literature showed that considerable research attention
has been directed toward this general area.

First, although it was stated earlier that some studies show differences
between men and women on measures of values, self-image, etc., when women
managers are studied they generally appear to be very similar to male managers.
Miner (1974) found that within a sample of store managers and school
administrators there were no differences between sexes on motivation to manage.
Further, managerial motivation was related as would be expected to managerial
performance for females. Similar findings were reported by Morrison and
Sebald (1974). Female executives were similar to male executives on self-esteem,

motivation, and mental ability. Also, when male executives were compared
with male nonexecutives and female executives were compared with female non-
executives, similar profile patterns emerged. Bartol (1976) examined job
orientation (i.e., values the individual places on job rewards and outcomes)
as a function of occupational grouping and sex. Same occupational groups
showed more similarity than same sex groups. Finally, Miner (1965) reported
that the managerial motivation of women changed with training and experience
in a manner similar to that observed with men. These results coupled with
the relationship between self-concept and occupational choice suggest that
women who gain entry into management jobs and experience the pressures asso-
ciated with that job have similar person systems to men who encounter
equivalent experiences.

Just as these studies indicate that women do possess or can develop
person systems compatible with management jobs, other evidence shows that
this match is not attained without some costs. Hawley (1971) found that role
expectations and role behaviors of women were strongly related to these
women's perceptions of the male stereotype of women. To t extent that
these attitudes place home and family responsibilities p .marily in the domain
of the "feminine role," then the working woman will ex arience pressures from
relevant others, and perhaps her own self-concept, t sacrifice her profession-
al career for family responsibilities. Mathews, Collins, and Cobb (1974)
found that such responsibilities were frequently mentioned as reasons why
women terminated training for the job of air traffic controller while men who
terminated rarely mentioned this as a reason. Consistent results with role
conflict as the dependent variable were reported by Gordon and Hall (1974)
and Hall and Gordon (1973).

It appears then that while women can add the role of a business career, they have difficulty shedding the role of housewife and mother. This results in experienced role conflict on two levels. First, conflicts can arise due to the incompatibility between the woman's self-perception of her role and the role sent to her by relevant others. Second, the taking of additional roles may create role overload. Here, the roles are not necessarily incompatible but it is difficult to allocate sufficient time and energy to all of the multiple roles.

Hall (1972) examined these conflicts among working women and focused on the methods women used to cope with the added stress. Women used primarily three coping strategies. These involved (1) changing the demands of a role which was termed structural role redefinition, (2) setting priorities on meeting role demands and otherwise learning to live with the added conflict which was termed personal role redefinition, and (3) attempting to meet the demands of all the multiple roles which was termed reactive role behavior. In general, structural role redefinition was positively related to satisfaction while reactive role behavior was negatively related to satisfaction. The results were complicated, however, by other variables such as full versus part-time employment. As stated by McGrath (1976) such coping strategies will only be successful if they are directed toward the source of the conflict. Similarly, Hall (1972) found that structural role definition would be the best strategy in the long run.

Now some may argue that men also have multiple roles of husband and father in addition to their career. Yet family responsibilities have primarily been assigned to women with the husband's career taking priority. It would be valuable to determine if husbands who share equally in family duties experience

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additional role conflict as a result of this new role, and the strategies they use to cope with such demands.

Another area for research concerns the personal role conflict that may be experienced by single women who have already established a career and now desire to marry and/or have children. These women have been able to devote their energies to their career. However, if they believe that wife and mother are also desirable roles, but do not want to chance sacrificing their job, they may experience resentment. A similar argument can be made for wives and mothers who now want a career but feel trapped in their present role.

To summarize this section, women are indeed as capable as men of possessing a person system that matches the requirements of a management career. However, these same women may experience stress as a result of multiple role conflict and person role conflict. Future research needs to examine how to effectively cope with these additional conflicts, and whether stress will be experienced by men who take on additional family responsibilities, by career women who desire marriage and a family, and by married women who desire a career.

The final source of influence on the socialization and development of women into management involves the social-interpersonal environment. It was stated earlier that members of this system communicate expectations to the woman manager concerning appropriate behaviors, work patterns, and performance levels. Further, her behavior and performance are monitored and evaluated according to these sent expectations. To the extent that women in management positions are sent different expectations than men and/or their behavior and performance are evaluated differently, they will encounter different social-ization and development.

The literature in this area will be divided into two broad sections. The

first will address the evaluation of women's behavior and performance by relevant others in her role set; the second will address employee reactions to women in supervisory positions. A final section will attempt to integrate the results from these studies.

A common theme in the literature centers on the lack of congruency between the woman's traditional sex-role and her behavior and performance in non-traditional masculine sex-typed jobs. Research suggests that compared to men women are promoted slower, denied opportunities for challenging job duties, and paid lower salaries (cf., Rosen & Jerdee, 1973, 1974; Terborg & Ilgen, 1975). Of interest, out of role behavior also results in a negative evaluation when displayed by men. Rosen and Jerdee (1974) found that a request for time off due to family problems was judged less acceptable when coming from a man than a woman.

The overall results, however, are inconsistent. Hagan and Kahn (1975) found that competent women were evaluated negatively only in conditions of competition. Under conditions of observation and cooperation, raters positively evaluated a competent woman's performance. Similarly, Bigoness (1976) reported that on a masculine task, given low levels of objective performance women and men were rated equally low; however, given high levels of objective performance women were rated superior to equally performing men. Finally, Epstein (1970) found that career women received more praise than men for lower performance.

The findings of Hagan and Kahn and Epstein could be explained by the role congruency notion if one assumes that not being competitive and the display of low performance are consistent with woman's traditional role. However, the findings of Bigoness suggest that some other process may be operating. Superior performance when unexpected may result in a more positive evaluation

than superior performance when expected (Leventhal & Michaels, 1971; Weiner,
1972). If women are not expected to perform well, and research suggests that
men see women managers as operating under constraints beyond their control
(Terborg & Ilgen, 1975), then when they do perform well, their performance
may be attributed to extra effort, and so forth. Thus, they are perceived as
more worthy of a reward.

Women appear then to be in the unenviable position of sometimes being
rewarded for high performance which is not expected and sometimes being
rewarded for low performance which is expected. If the latter occurs, women
may quickly learn to restrict their performance to "acceptable" levels. Given
this restricted performance, it becomes easy to explain why women are not
promoted as quickly as men, given challenging job assignments, etc. A strong
warning needs to accompany these results, however. Most of these findings
are based on laboratory studies and as with much of the work in this area,
the external validity needs to be determined.

As a final comment, Rosen and Jerdee (1975) found that a similar pheno-
menon occurs with regard to behaviors in addition to performance. Women using
a threatening approach when presenting a grievance were perceived as behaving
out of role and because of this their complaint was judged to be more serious.
than a similar threat by a man.

The congruency idea has also been used to explain employee reactions to
women in supervisory positions. In a laboratory study, Jacobson and Effertz
(1974) found support for their hypotheses that followers would be more critical
of male leaders than female leaders since more was expected of the males in
this leadership position, and leaders would be more critical of female followers
than male followers since more was expected of the females in this follower

position. Bartol (1974), however, found results not predicted by sex-role congruency. In a detailed experiment which used an eight week long management game as a task, subordinate satisfaction was not effected by the female leader's need for dominance. Rather, need for dominance was positively related with subordinate satisfaction for both male and female leaders.

Employee satisfaction with leader behavior also was examined in two field studies. Hansen (1974) found that although there were no sex of supervisor differences on ratings of support behaviors and goal facilitation behaviors, subordinates of both sexes were less satisfied if their supervisor was female. Correlations between leader behavior and subordinate satisfaction were generally lower for the female supervisor group and there was some indication that this was due to the low satisfaction reported by female subordinates working for female supervisors. Finally, Hansen found that a subset of women supervisors reported having less job autonomy than men. If subordinates also perceived this, then this could explain the lower correlations. Petty and Lee (1975) conducted a similar study with dissimilar results. Ratings of leader consideration were more highly correlated with subordinate satisfaction when the supervisor was female. There also was a negative correlation between initiation of structure and subordinate satisfaction for a subset of males under a female supervisor. These results were interpreted as supporting the sex-role congruency notion since the display of consideration behaviors is consistent with the feminine stereotype while the display of initiation of structure behaviors is not.

The effects of sex of department head on subordinate ratings of organizational climate were investigated by Roussell (1974). Even though there were no sex differences on ratings of power, aggressiveness, suggestibility, and professional knowledge, the climate profiles showed that departments

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headed by males were rated high on the dimensions of "esprit" and "intimacy"
while departments headed by females were rated high on the dimension of
"hinderance." Consistent with the findings of Hansen (1974), correlations
between leader behavior and subordinate ratings of climate were generally
lower for the female department head group.

In explaining their results, many of the above discussed authors have
limited their arguments to one of two overlapping positions. First, sex-role
stereotypes concerning appropriate behavior exist and second, actuarial pre-
judice makes successful performance by a female unexpected and therefore
noteworthy. It would now be valuable to consider other more complicated
processes which could help explain this differential reaction to women in
management positions. If stereotypes are as pervasive as some assume, then
why are the results in this area so inconsistent?

One explanation which merits further research is what Staines, Tavris,
and Jayaratne (1973) call the "Queen Bee Syndrome." The queen bee is a
woman who has attained success and status in a man's world and views other
women as competitors for her position. If women managers do display differ-
ent behaviors toward female subordinates than male subordinates, then findings
of low satisfaction among female subordinates of female supervisors could be
explained. Although past studies show no behavioral differences across sex
of supervisor, respondents frequently are asked to rate their supervisor
"on the average." This method would not uncover differential behavior directed
toward individual subordinates. Use of the methodology employed by Graen
(1976) in his vertical-dyad-linkage model of leader behavior would be better
able to determine whether the queen bee syndrome is a viable explanation.

Another consideration deals with the upward influence women supervisors
have in making resources available to their work unit. Research shows that

women managers are often found in dead end jobs (Day & Stogdill, 1972), low

status jobs (Goetz & Herman, 1976), and other positions outside of the career

path (Lyle & Ross, 1973). If Hansen's finding that women managers have less

autonomy is replicated, then the dissatisfaction and resistance toward women

managers by their subordinates may not be due to the sex or behavior of the

manager. Rather, the woman due to her present low status position is unable

to wield influence. If this is correct, then we would expect to find similar

subordinate reactions to male managers who also lack upward influence. Work

by Pelz (1952) and more recently by Graen and his associates (Cashman,

Dansereau, Graen, & Haga, 1976; Graen, Cashman, Ginsburgh, & Schiemen, in

press) provides strong support for the influence explanation. Pursuing this

further, it should not be assumed that women are placed in these low status

positions solely on the basis of stereotypes held by men. Women for various

reasons may not commit themselves to a career as early as men, they may be

unaware of the techniques of job switching due to lack of role models, or they

may be unwilling to relocate in order to progress up the career ladder.

The existence of inconsistent results should also be examined with regard

to possible confusion among the woman's role set. At the beginning of this

section it was stated that members of the social-interpersonal environment

possess and communicate expectations concerning appropriate actions, qualities,

and performance levels which are associated with a position or job. Since

these expectations deal with a position and not with individual members who

occupy that position, then sex of role incumbent should not drastically influ-

ence this role-taking/role-making process. Similarly, the display of identical

behaviors and performance levels should result in identical evaluations of

that role incumbent. However, as evident from the proliferation of inconsistent

results, the process is much more complex.

Perhaps, due to the high visibility of the woman, her role set includes
a different membership than that of a man. Second, while the sent role for
male incumbents may be expected to vary as a function of position; when
considering a female incumbent, the sent role may vary as a function of sex,
position, and a sex by position interaction. Thus, in those instances where
sex-role stereotypes are operative, a woman may be evaluated along the
dimensions of sex and position while a man is evaluated according to position.
Consequently, a woman's behavior and/or performance can be out of role by
sex while in role by position, in role by sex and out of role by position, out
of role by sex and position, and in role by sex and position. Of course, the
same argument can be made for men in feminine sex-typed jobs but our concern
here is with women in management.

A further complication arises when we distinguish behavior from perfor-
mance. Successful performance by a woman may be unexpected and for that
reason she is evaluated positively. However, the behaviors engaged in by
that woman in order to be successful may be discrepant from accepted sex-roles
and in this instance she may be evaluated negatively.

What then can be done in order to break out of this cycle? A solution
may be found if we reconsider the three major sources of influence which
interact to shape a woman manager's socialization and development. Taking the
person system first, we know that increasing numbers of women are choosing
careers in business and are taking steps toward acquiring the necessary skills
and experience. Examination of the technological environment also is
encouraging. Techniques are available for the selection and placement of
women into jobs for which they have a reasonable probability of success. The
major barrier then appears to be in providing on-the-job opportunities for

development and demonstration of success. This brings role-taking and role-making within the interpersonal environment to the forefront. Just as members of this system influence the woman role incumbent, she also can influence the expectations, etc., held by these members of her role set. To the extent that women engage in the appropriate behaviors for that position and demonstrate the ability to be successful, they will exert pressure on the role set to evaluate them on an individual basis rather than as an undifferentiated member of a subgroup. However, if a woman is promoted into a position solely because of her sex, and she does not possess the skill, experience, and self-concept needed for that position, then she will most likely fail just as a similar man would fail. This failure would perpetuate the belief that women do not belong in positions of responsibility and authority. On the other hand, given a performance record of success, over time the expectations of the role set should shift away from a sex-role orientation and more toward a position-role orientation. In the past, this change has probably occurred due to the over powering qualifications of the woman. Evidence exists which shows that women in management have greater qualifications than men in similar positions (Day & Stogdill, 1972; Roussell, 1975).

This process can, however, be speeded up. Berlew and Hall (1966), Graen (1976), Hall (1971), and Livingston (1969) all point toward the crucial role of the person's first supervisor. The experiences encountered during the first year are strongly related to later success and career development. If women are placed in a protege-mentor relationship with supervisors who have records of developing their subordinates, then the initial resistance to women by members of her role set should be broken down more rapidly. However, if women are denied this early support and opportunity vis-a-vis lack of

role models or placement into dead-end jobs which have little power, then
only the over-qualified will survive. O'Leary (1974) stated that more re-
search needs to be directed toward the impact of such role models. This
research has not been forthcoming. Yet this role making and role modeling
may provide the major step toward the successful integration of women in
management.

Conclusions

Throughout this paper various research needs have been stated. I would
like to take this opportunity to make a few more comments in this area.
First, there must be more longitudinal field research which considers the
interchange between the person system, the technological environment, and
the interpersonal environment. Behavior in organizations with its interlocking
roles, environmental constraints, and long term consequences is vastly dif-
ferent from one shot laboratory studies with paper and pencil stimulus persons
and lack of reciprocity. Second, more attention should be placed on the
consequences of women in management outside of her own work behavior. Men
will be faced with a re-evaluation of their own socialized role of "family
provider." Conflicts from dual career families will most certainly arise.
We know very little about these conflicts or how to cope with them (Hall, 1976).

I am optimistic about the increasing opportunities for women to success-
fully pursue a career in management. Once women consistently demonstrate
success in handling the demands of the position, gender will become unimportant.
Rather, my concern for the future lies in the consequences of job equality.

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B. *Class Size*

The relationship between class size and fluctuating school enrollments and its impact on the cost and quality of education is unclear. Sufficient data is not available to support a recommendation in this area.

C. *Unrequested Leave of Absence*

1. The Legislature should review and clarify Minnesota 125.12, Subd. 6a, *Negotiated Unrequested Leave of Absence*; Subd. 6b, *Unrequested Leave of Absence*; and 125.17, Subd. 11, *Services Terminated by Discontinued or Lack of Pupils: Preference Given*, as it relates to all certificated positions in the following ways:

   a. Clarify the process of staff reduction for all certificated positions.

   b. Clarify the reduction procedures should consolidation occur to insure continuing contract rights and seniority to all certificated staff.

   c. Define the purposes of this policy:

      . "Teachers" to mean a principal supervisor, classroom teacher, and any other professional employee required to hold a certificate except superintendent and assistant superintendent.

      . "Qualified" to mean a teacher who has a major in the subject matter or field taught, and has successfully had experience in such subject matter within the past five years.

      . "Subject matter or field" should be consistent with State Department of Education requirements for certification.

      . "Seniority" to mean full-time continuing contract teachers and shall exclude probationary teachers, substitutes, part-time teachers, substitutes, part-time teachers, and those teachers who are acting incumbents for teachers on authorized leave of absence.

   d. All school districts (cities of 1st class and independent districts) in Minnesota should be treated equally under the law.

D. *Teacher Exit*

1. The Legislature should provide a plan incorporating state-local funding to support severance pay provisions which encourage early retirement.

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2. The Legislature should not lower the age limit for recipients of full retirement benefits as a means of meeting the problems of declining enrollments.

3. The Legislature should provide funds for the retraining of teachers and reemployment assistance both in and out of teaching.

E. Foundation Aid Formula

1. The foundation aid formula for declining school districts should be changed to extend the special credit for enrollment change over a three year period. This could be accomplished by counting .6 pupil unit for each unit of decline the first year, .3 pupil unit the second year, and .1 pupil unit the third year.

2. The Legislature should continue without change the fast growth enrollment factor in the foundation aid formula.

3. The Legislature should continue to reexamine on an annual or biennial basis the allocation of state/local support for education using a 70/30 percent state/local ratio as a measure of equity. The Council is particularly concerned that given constant levy mileage limitations the recent inflationary increases in property valuations may lead to excessive real property taxes and hence excessive local effort. This would erode the equity and equalization aspects of the foundation aid formula.

4. The Legislature should provide within the foundation aid formula provisions for the professional training of all certificated staff. This provision should account for the levels of training on an index basis.

6. The Legislature should retain the present pupil unit weighting for kindergarten, elementary, and secondary students.

7. The Legislature should revise the current levy limitation to (1) incorporate a "power-equalized" or equal dollar for equal effort provision for any excess levy; (2) allow local school board discretion on excess levies to a maximum of 5 mills on EARC valuation; and (3) maintain the referendum provision for levies in excess of 5 mills on EARC valuation.

8. The Legislature should provide full state funding for school district fixed costs associated with district contributions to Public Employees Retirement Association (PERA), and Social Security (FICA).

9. The Legislature should provide within the foundation aid formula provisions for adjustments to the pupil unit base to reflect cost differentials attributable to sparsity of pupil populations.

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F. *Transportation Aid Formula*

1. The Legislature should not amend the transportation aid formula to provide for reimbursement levels adjusted for charges in the Wholesale Price Index.

2. The Legislature should amend the transportation aid formula to provide full state funding for the transportation of handicapped students for all expenses above the 128% allowable costs.

3. The Legislature should expand the transportation aid formula to include allowable costs for specified student activity transportation needs (field trips, athletics, music, debate, etc.) and for interdistrict cooperative programs transportation needs.

G. *Educational Program*

1. The Legislature should support a study on the cost and quality of current educational services in school districts by size of district and expenditure levels. This study should focus, not only on the number and types of educational offerings, but also on the F.T.E. staff capability related to the program.

2. The Legislature should define minimum educational standards or require the State Department of Education to make such a definition. Sufficient funds should then be allocated through foundation aid to allow each school district to meet program standards providing the school district is of sufficient size to justify, economically, offering the program.

H. *Cooperation*

1. The State Board of Education should seek statutory authority to adopt administrative rules and regulations that would serve as incentives to interdistrict cooperation and provide for orderly development of cooperative interdistrict programs.

2. The Legislature should continue to fund the Educational Cooperative Service Units for a second year at the same level of support granted in year one.

3. The Legislature should amend the ECSU statute to allow for the governance of the ECSU by lay citizens selected on a proportional basis by local school board members, with advice and counsel from a board of administrators.

4. The Legislature should amend the ECSU statute to require all local school districts to participate in planning activities on a regular basis.

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I. *Consolidation*

1. The Legislature should provide fiscal incentives to encourage the consolidation of small districts. This should be more than a planning grant including one or all of the following:

    . A prorated grant based on the size of the new district.

    . A flat grant guaranteeing the new district a given number of dollars for a fixed number of years. The threshold for securing this aid should be an enrollment of at least 850 pupils in the new district.

    . A shared cost formula to finance school facilities construction and/or renovation.

J. *Management*

1. The Legislature should provide the appropriate funds, on a continuous basis, for the training and retraining of selected management personnel in the utilization of management systems.

2. The Legislature should provide appropriate funds to enable the State Board of Education in cooperation with other state administrative agencies and legislative research units to develop and implement a school district management monitoring system to include the following components: enrollment data, revenue data, resource allocation data, service/program capability data, outcome/productivity data, and elementary and secondary school building data.

3. The Legislature should amend Minnesota Statute 123.741-742 to incorporate into the mandated annual reports to be made available to the public a report on anticipated changes in enrollment and their impact on the cost/quality of educational programs, facilities, and services.

4. The Educational Cooperative Service Units should be required to provide the leadership and training for projecting local school district enrollment trends and provide adequate funding to carry out this mandate.

5. The Legislature should continue to support and encourage the office of the State Demographer in all efforts made to continually study the historical patterns of enrollment changes, the development of assessment devices, and the collection of a more reliable data base for the analysis of enrollment change.

6. The Legislature should not mandate a provision of regional bargaining units in Minnesota Statute *Public Employment Labor Relations Act of 1971*.

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K. Facilities

1. Local school districts should promote the concept of cooperative purchasing of goods and services through the Educational Cooperative Service Units or other governmental units.

2. The Legislature should provide fiscal incentives for the leasing or sharing of school facilities and/or buildings between school districts, public or nonpublic. This may be supplementary to the existing additional capital outlay levy found in Minnesota Statute 275.125, Subd. 12, (1975 Supplement).

3. The Legislature should require all school districts to submit school construction proposals for projects in excess of $50,000 to the State Board of Education for review and comment.

4. The State Board of Education should provide a facilities planning manual or ad hoc committees of facilities experts to the local school districts which would provide alternatives for the disposal of obsolete and excess facilities.

5. The Legislature should develop and fund a shared cost formula to finance school facilities construction and/or renovation.

6. The State Department of Education should provide funds, through a shared-cost formula, as incentive for the lease/purchase or renovation of existing modular/relocatables or the construction of new modular units, in districts where there is reason to believe the pupil population is unstable or is projected to decline in future years.

7. The State Department of Education should develop a standard set of specifications for new modular/relocatable units (basic unit) to help insure low local maintenance, and ease of relocation at minimal cost to the state.

8. The State Department of Education and/or the ECSUs should maintain a state file/listing of their specifications and availability and provide funds for the relocation of such units as necessary throughout the state.

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Supplementary List of Recommendations - October, 1976

In addition to the recommendations sent with the Notice of Meeting, the Council is also considering the following recommendations:

Educational Mobile Units: The Legislature should provide funds for the purchase and use of educational mobile units in those sparsely populated areas (students travel time exceeds one hour to or from school) in which the quantity and quality of education cannot be maintained or enhanced through inter-district cooperation or consolidation. These mobile units might provide educational services such as driver's education, science laboratories, model offices, et cetera.

Teacher Supply and Demand: The Legislature or the State Board of Education should conduct an annual study on the supply and demand of public education teachers by area of certification and program need. This study should be conducted in cooperation with the higher education institutions in the state of Minnesota. Information gathered from the annual study should be utilized annually to provide appropriate career counseling for undergraduates. This is not intended to encourage controls on individual career choices.

Issuance of Continuing Contracts: The Legislature should amend Minnesota Statute 125.12, Subdivision 3, *Probationary Period,* and Subdivision 4, *Termination of Contract After Probationary Period,* by changing the official date for renewal of teaching contracts from April 1 to May 15. This change in the renewal date would provide flexibility in educational, fiscal, and personnel planning at the local level.

Professional Experience Provision: The Legislature should provide within the foundation aid formula provisions for the professional experience of all certificated staff. This provision may be based on a staff experience index or adjustments to the pupil unit base to reflect the experience levels.

Class Size: The Legislature should not enact legislation which provides special aids to school districts to maintain an specified class size as a means to alleviate the fiscal and educational problems associated with fluctuating school enrollments.

Correction - School Construction Proposals: The Legislature should require all school districts to submit school construction proposals for projects in excess of $250,000 to the State Board of Education for review and comment

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Testimony from Hearings - October, 1976

The following summary of testimony given that the October,
1976 hearings has been categorized under six major headings:
(1) personnel, (2) educational program, (3) revenue, (4) organ-
ization/governance, (5) transportation, (6) school buildings.
The statements are not in any order of priority.

1. PERSONNEL

   Staffing Flexibility/Mobility

   a. There should be measures to support staff mobility between
      school districts experiencing fluctuating school enrollments.
   b. Ideally, providing monetary incentives to encourage mobility
      has merit. However, from a practical standpoint, the in-
      centives would have to be quite substantial since, as so
      so many studies show, job satisfaction is not related to
      money alone.
   c. I strongly support some action which leads to the reduction
      of ceilings on longevity transferrable from one district to
      another for all teachers in all districts not only in growing
      districts. This would encourage mobility of teachers generally,
      create greater flexibility in staffing patterns in all dis-
      tricts, and make a contribution to the general improvement
      of education.
   d. While there is undoubtably some merit in making it possible
      to share teachers and there are many reasons why the welfare
      of teachers and their security is important, it does not
      appear prudent for the state to guarantee complete security
      to any group of people. At any given time there is only so
      much money in the educational pot and the priority should
      be on the education of boys and girls, not on employee
      security.
   e. The clearinghouse and teachers corps concepts are attempts
      to establish a procedure to support a segment of the labor
      force that is now a victum of normal supply and demand trends
      and certainly should not and would not be tolerated by others
      similarily situated.
   f. The clearinghouse concept has implications for statewide
      teacher tenure. It utilizes teachers as "journeymen" and
      could affect continuity in buildings.
   g. In response to the recommendations about a clearinghouse
      and a teachers corps, I must indicate that we have existing
      placement agencies and employment offices, we do not need
      to create another bureaucracy to serve the same purpose.
   h. These staffing recommendations are only another step toward
      reorganization.
   i. I do not believe I can agree with the clearinghouse concept.
      We are, in many cases, too far down the road toward re-
      organization and regionalization.

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<u>*Teacher Exit*</u>
a. Early retirement
    (1) The cost of lowering the age limit for recipients of
        full retirement benefits is extremely expensive. Perhaps
        some provisions can be found whereby individuals can
        retire somewhat earlier with full benefits and with a
        greater personal contribution to the fund.
    (2) I question adding to local costs on early retirement.
        I do feel legislative attempts should be made to lower
        the age limits for recipients of full time retirement
        benefits providing the involved teachers are willing
        to assume a larger share of payments into the fund.
    (3) The Legislature should lower the age for retirement
        benefits if the cost is not prohibitive.
    (4) The Legislature should lower the age limit for recipients
        of full retirement benefits and make up the amount for
        which early retirees are penalized. Unless such action
        is taken, few will retire early.
    (5) If it were possible to increase, for those interested,
        the percentage of monies going into retirement benefits,
        I believe lowering the age from 62 to 60 or 55 would
        encourage greater number of teachers with 30 years of
        experience, or thereabout, to leave teaching earlier.
b. Severance pay
    (1) State-local funding to support severance pay provisions
        which encourage early retirement is in effect an early
        retirement. Can the state of Minnesota afford the cost?
    (2) The severance pay provision might be advantageous under
        one set of circumstances which can be adapted to individual
        districts. However, if we are going to pay people to
        exit, why not design a system which will also provide
        services commensurate with those dollars expended?
    (3) The two or three experiences we have had with severance
        pay would imply that state funding for this particular
        plan is not necessary, since it takes only one year
        after an experienced staff member who earns $20,000 per
        year leaves, and is paid severance pay, is replaced by
        a $10,000 per year teacher to make up the difference in
        cost.
    (4) We believe that it would be irresponsible to recommend
        a plan incorporating state/local funding to support
        severance pay plans to encourage early retirement.
    (5) Unless severance pay was very high it is doubtfull that
        it will encourage anyone to retire early unless a
        teacher has some other assured source of income.
c. Unrequested leave of absence
    (1) Why do we need to spend more money to encourage mobility
        of experienced teachers when all the Legislature has
        to do is change the current seniority law to make
        seniority transferrable from district to district. The
        present law is stagnating and inflexible. It destroys
        whatever free enterprise exists in the system.
    (2) The Council's recommended changes in the unrequested
        leave of absence law clarify ambiquities and restructures
        priorities in favor of those who receive educational
        services.

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    (3) The law required school districts to negotiate unrequested leave of absence policies. There should be no interference in that process now. Boards of education and teachers ought to be given credit for the expertise they have in recognizing and working to solve and prevent problems at the local level.

    (4) While there is concurrence that the present unrequested leave of absence law should be clarified as to the definition of teacher (i.e., inclusion or exclusion of the superintendent in the definition), some protection should be afforded the superintendent in terms of substantive and procedural due process before his/her contract would be terminated. A minimum contract term should be considered.

    (5) It is our opinion that the unrequested leave of absence law should allow the local negotiating units and the school boards as much latitude in negotiations as possible.

d. Extended Leaves of absence

    (1) The Legislature should authorize extended leaves of absence. There would be no problem with this if school boards did not have to guarantee the teacher their position and if there were a provision which would prohibit the use of "nuisance" short term leaves for two or three months.

    (2) Many districts grant two years leave of absence to teachers for various reasons. There is no need for the Legislature to mandate such leaves. This should remain at the discretion of the local school board.

e. Retraining of staff

    (1) Why should the state be responsible for the retraining of a specialized segment of the work force?

    (2) Why should the Legislature retrain teachers any more than it should retrain other citizens required to change occupations? Teachers, by virtue of degrees, should be better prepared for a variety of occupations than most of our citizens.

2. EDUCATIONAL PROGRAM

Class Size

a. The special need for low staff-student ratios in inner city schools cannot be ignored.

b. The relationship between class size, fluctuating enrollments and its impact on the cost is near to being directly proportional. A decrease in class size increases cost in most instances. The subject of class size and the impact it has on educational cost needs close examination.

c. While every effort must be made to keep class sizes as small as possible, the determination must be made at the local level. It would seem over-regulatory for the state to develop rigid class size ratios.

d. We do believe that lower class sizes produce more opportunity for learning by the individual student and insofar as being fiscally responsible, class sizes should be kept at an acceptable level.

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a. The definition of minimum standards might lead to·required consolidation of smaller schools. Do we really mean it when we say that the "schools belong to the people"?

b. The Legislature is not the proper party to determine minimum educational standards for all the students in the state of Minnesota. If they are to be the responsible party for this definition, then it would appear that local school districts and local control are a thing of the past.

c. Minimum educational standards should be the responsibility of the local school district with broad goal statements which have programmatic implications established by the State Department of Education.

d. If foundation aids are allocated on the basis of meeting educational standards, our school district will rapidly deteriorate.

e. State minimum educational standards would have the effect of reducing our existing state quality educational program to fixed areas without recognizing the variance of needs and aspirations of students, parents and communities.

f. "Minimum educational standards" needs to be defined. Does it mean (a) program of studies, (b) graduation credits, or (c) meeting certain test requirements in certain areas of study? If such standards are established and funds are supplied, does this imply a sharply restricted curriculum based on funds granted to support these standards? Does it leave any local option? Does the standard provide for special services as well as curriculum?

g. We express concern over the Council's apparent desire to set minimum standards. It would appear desireable to explore alternative ways to fund education with the local community determining appropriate programs with less emphasis on the yet undefined term "quality education".

h. If it is accepted that educational opportunities should be equal for all students within our state, then some of the programs in the rural areas should be given additional economic support. A program for a small group of students in rural Minnesota will cost more per pupil than in a large school district. This high cost should not be considered a deterrent these student's rights to the same program received by students in the urban area.

Cost and Quality Study

a. The recommendation regarding the cost and quality study of educational programs should receive the highest priority. This study should also include non-public schools since they also receive revenue from the state and should be under the same scrutiny as the public schools.

b. Any effective study of the cost and quality of educational services must be coupled by the comparable pupil range. The extremely diverse population of the central cities in the seven county area is substantially different than any other district in the state.

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c. The recommendations on the educational program seem to support a concept of legislative control rather than local control.
d. The quality of education cannot be measured.

3. REVENUE

Declining Enrollment Factor

a. Attention must be given to foundation aids for districts facing declining enrollments.
b. Changing the declining enrollment factor in the foundation aid formula would be helpful on a temporary basis.
c. The three-year proposal for reduction of aids warrants consideration.
d. We endorse the recommended changes in the foundation aid formula to extending the special credit for enrollment change over a three-year period and that all districts should be included in its application.
e. By extending the special credit ofr enrollment change we are just procrastinating and not forcing districts to come to grips with the problem at hand.

Fast Growth Factor

a. The fast growth factor whould be incorporated with capital outlay costs.

70/30 State/Local Support

a. Because of the inflationary increases in assessed valuation the difference between the state and local support levels has become smaller each year. The Legi. ature should look at a small sample of school districts over the last three or four years. They may be surprised at the effects inflation has had on the "Minnesota Miracle".
b. The Legislature should reexamine the allocation of state/local support levels on an annual basis.
c. The growth in the assessed valuations is the fundamental problem and perhaps further limits on how much it can increase in any one year should be set; particularly, when the rate of increase far exceeds the rate of income.

Fixed Costs

a. There should be state support for school districts fixed costs associated with district contributions to PERA, FICA and municipal retirement programs.
b. The Legislature may consider allowing an excess levy to cover the school districts fixed costs.
c. The state pays the TRA in social security for certificated staff. The same should apply to PERA and social security for non-certificated staff.

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Maturing Staff

a. This might be of some assistance to those districts with a mature staff, but it might also encourage negotiating groups to spend most of their time and emphasis on increasing the index ratios, wherein more money is given for credits earned.

b. High expenditure, declining enrollment districts are often staffed by highly trained and experienced teachers.

c. Special aids in this area should take into account the differences in salary maximums between urban and rural districts.

d. The Legislature should provide additional aid for those districts that have sixty percent or more of their teachers at the top of the salary schedule.

e. High staff costs associated with a high level of professional training place an inordinate burden on a district's ability to finance its educational program.

f. Years of experience are not a controllable factor but the "degree lanes" are established by local school districts. Any index developed, therefore, should give more emphasis to experience and actual degrees than to degree lanes.

Power Equalizing

a. The Legislature should allow local school board discretion on excess levies to a maximum of five (5) mills on EARC property valuations and maintain the referendum provision for levies in excess of five (5) mills.

b. Power equalization is a good idea from an equality point of view. Discretionary excess levies would solve the problems of unique one year types of expenses incurred when opening new schools, or in the transition period when closing schools.

c. This is an excellent provision provided employee groups do not simply expect this "extra" levy to be used for salary alone. No program should be eliminated if the extra levy if made.

Sparsity

a. The Legislature should provide special aids in the foundation aid formula to reflect the increased costs due to the sparsity of pupil populations.

Mandatory Program Costs

a. The Legislature should provide one hundred percent reimbursement to a school district for costs in excess of the average per pupil cost for mandated programs and services.

b. The impact of special education tuition places a school district in serious financial trouble with no other choice than to cut staff or programs in some other areas. We do not receive near the amount of special aids necessary to cover these costs.

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c. The Legislature must continue to look at its consistent pattern of requiring service to handicapped pupils without adequate funding sources available for local schools while we advocate the educational needs being met of handicapped pupils. The pressure on the local district dollar to provide these services has been accelerating more rapidly than local districts can handle. Part of the problem is the continual development of new mandated services by the Legislature without adequate funding provided.

4. ORGANIZATION/GOVERNANCE

Consolidation

a. We support the need for state incentives to encourage consolidation of small school districts.
b. Consolidation is <u>one</u> of the avenues to providing effective programs.
c. I think we are hiding our heads in the sand in the state if we do not face up to the inevitable problem of legislative action to facilitate consolidation of small school districts. Equalizing educational opportunity is not possible if we continue to fund small school districts.
c. Fiscal incentives for school district consolidation could be handled through adjustments in the foundation aid formula.
d. It is certainly realistic to suppose that consolidation will be considered by school districts as population declines.
e. School consolidation and the aftermath of school consolidation has probably been the biggest thorn in the side to school district operation.
f. While consolidation appears inevitable, there should be no consolidation where the transportation of K-3 level students is required.
g. Local school districts should be permitted to continue to educate their children as they see fit.

Cooperation

a. It should be clearly evident that cooperative service units do perform a function at a lower cost before additional funding is continued.
b. Cooperation should be fostered by fiscal incentives which allow districts to provide service to students at a reduced cost. Flexibility in utilizing funds is also extremely important. In some cases cooperation leads to more programming which means more money.
c. Interdistrict cooperative programs can be supported only if there is voluntary participation of respective schools.

Educational Cooperative Service Units

a. Participation in the ECSU's should be encouraged, not mandated.
b. The ECSU's should serve the participating districts, not control.
c. The ECSU's should not be made an arm of the state. If they are to be successful there should not be any tampering with the current basic philosophy.

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a. If the State Board has statutory authority to develop and
    adopt administrative rules and regulations for the develop-
    ment of cooperative programs, it then has the power to
    legislate out of existence small school districts. This
    is a dangerous move.
b. Additional powers to the State Board to develop these rules
    and regulations would further burden the overworked adminis-
    tration of the school districts.

Management

a. Those recommendations regarding management training should
    be guidelines under the leadership of the Department of
    Education.
b. Unless we have legislative financial support for the employment
    of personnel and training of personnel it will be difficult
    for districts to keep up with the proliferation of additional
    management tasks required of the districts. It is becoming
    more and more difficult to administer school districts with-
    out adding administrative help. Educational Cooperative
    Service Units or Cooperatives are not the answer to all of
    these concerns.

5. TRANSPORTATION

a. Additional transportation aids in areas of sparse populations
    should be considered.
b. Transportation aids should include educational field trips,
    but not extracurricular costs.
c. The school districts should receive full state funding for
    the transportation of handicapped students.

6. SCHOOL BUILDINGS

a. The Legislature should provide aid to districts which modify
    buildings to accommodate added students and programs as other
    buildings are closed in line with declining enrollments.
b. The Legislature should not help pay for school facilities
    or renovation.
c. Fiscal incentives should be provided to encourage the leasing
    or sharing of school buildings.
d. To assist and encourage school districts to upgrade their
    educational facilities or to build new facilities, the state
    could increase the state's contribution in the Debt Redemption
    Levy by increasing the homestead credit percentage to the
    consolidated district.

MINNESOTA STATEWIDE
ENROLLMENT PROJECTIONS

Preface.

The Advisory Council on Fluctuating School Enrollments was organized in 1974 to "examine, by whatever means it deems appropriate, the impact of fluctuating school enrollments and their consequential effect on the quality and cost of education" [see Section A-1: Laws of Minnesota, 1974, Chapter 355, Sec. 68, Sub. 3(b)].

This paper addresses the baseline concern of what those fluctuations in enrollment will be, when they are likely to occur, and where they are most likely to be located.

Subsequent papers issued by the Council will be based on the framework of population projections generated in this paper, subject to revision according to the availability of revised data from agencies charged with the provision of that information, especially the State Planning Agency, the office of the State Demographer, and the State Department of Education.

Projections

It is a cliche to say that one cannot predict the future. To compensate for this inability, humanity assumes that tomorrow will be very much like today. The probabilities are that such a belief is generally correct. But if one is interested in a longer range period, 10 years for example, the probabilities of being accurate attenuate rather quickly. Although one might feel (rather than know) that the world of 1985 is going to be quite different from our world in 1975, one cannot have any certainty as to which dimensions of life might be very different and which might closely resemble those of today.

The human condition is such that most persons either do not think about 1985, or do not wish to. When they do, it is likely that the general belief is that life will not change very much between now and then.

At a deeper level, however, that simply is not true. A person born two generations ago might have foreseen the widespread use of the automobile, but not round-trip rocket travel to the moon. Nor could anyone have imagined the expansion of man's inhumanity to man from cannon shells to nuclear bombs in relatively few years.

There is an apparent contradiction—on the one hand, we do not like to predict a different future for ourselves, and on the other hand we know that the future will be a good deal different from what we know now. In fact, there is an array of futures waiting to become reality, not just one monolithic future. Whatever emerges will depend to a large extent on what is done to define, shape, and implement events of programs or policies. From the range of alternatives, both desirable and undesirable, humanity can influence what eventually occurs.

In order to think about the shaping of the future, we need a good many tools which transcend the capacity of human intuition. Fortunately, more accurate recordkeeping of our recent history, the technological capacity of computers, increasingly sophisticated statistical techniques, and highly skilled people to manage the interaction of ideas and machinery are available to us.

The case under examination in this instance, that of population, is especially susceptible to reasonably accurate projection. (Compare the quality of population estimates over the next 10 years to trying to estimate something like changes in the American value system, for example.)

Minnesota is the second state in the country to utilize a demographer to develop various kinds of population projections. State agencies will be using data provided by the State Demographer in their planning; for perhaps the first time, there will be a commonality of data across agencies, a situation which will both permit and encourage better comparisons of data and more accurate planning. Heretofore, planning based on population was performed by each agency according to its generally noncomparable needs and by persons of varying degrees of skill.

The challenge of this Council involves fluctuating enrollments. It is important to have a clear picture about the size of the school-age population now, how much that population will change in size and composition in future, and how it will be distributed around the state. Once those patterns begin to emerge, the implications for other aspects of educational policy will also become more apparent.

One does not have to project very far into the future to perceive the approximate shape and size of the population of school youngsters in Minnesota. Those children will not enter school until 1980, shall all have been born by the end of this summer, and they shall be in our schools until about 1993. Those born only five years from now will not leave school until about 1998. Children born in the famous year 1984 will not leave secondary school until after the next century has begun. In other words, short-range projections of birth rates (e.g., for the years between 1975 and 1980) will suggest the impact of enrollments on schools from 1985-98.

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Before a perusal of where Minnesota is likely to find itself
in the future, it is useful to examine the recent past in terms
of the state's population.

Between 1960 and 1970, the total population of Minnesota
grew by 391,000 from 3,414,000 to 3,805,000, an increase of 11.5
percent over the population living in the state in 1960. While
the metropolitan areas of the state grew by 19 percent, nonmetro-
politan areas increased by only 3 percent. Nearly 90 percent of
the total state increase was accounted for by the metropolitan
areas. (See map on page 86.)

Within Minnesota's metropolitan areas, all growth
occurred in the suburban rings, where population
increased by 385,000 or 45 percent. Central cities
show a slight loss of 38,000 or 4 percent. As a result
of these changes, there was a rise in the proportion
of total state population living in metropolitan areas.
In 1960, metropolitan areas accounted for 53 percent of
the population; by 1970 this had increased to 57 per-
cent. In the nation as a whole, nearly 70 percent of
the population is metropolitan.

The growth of the state is reflected in an excess of
births over deaths (natural increase) of 417,000, and
a small net out migration of 25,000 persons. In
metropolitan areas, population growth was the result
of both natural increase (268,000) and net immigration
(79,000). The central cities' loss was produced by
a substantial out migration of 132,000 persons, equiva-
lent to 14 percent of the population of the cities in
1960. By contrast, net immigration was of great im-
portance to the growth of the suburbs, which gained
211,000 persons from this source, equivalent to 25
percent of 1960 population.

All areas of the state experienced significant changes
in age composition. The population under 5 years of
age declined by 14 percent in metropolitan areas and by
28 percent in nonmetropolitan areas. The most rapidly
growing group was 15 to 24 years of age, which increased
by 62 percent in metropolitan areas and 34 percent in
nonmetropolitan areas.

The central cities' population loss was felt by all age
groups except for 15 to 24 years and 65 years of age and
over, while the suburbs show gains at all ages except
the youngest (under 5).

All changes similar to those which occurred in the state
as a whole are found in other sections of the country.
They are due in part to changing birth rates and in part
to migration.... (General Demographic Trends for
Metropolitan Areas, 1960 to 1970, U.S. Department of
Commerce, July 1971, Pages 4-5.)

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Population Change for Counties: 1960 to 1970

MINNESOTA

LEGEND

- ⊕ Places of 100,000 or more inhabitants
- ● Places of 50,000 to 100,000 inhabitants
- □ Central cities of SMSA's with fewer than 50,000 inhabitants
- ○ Places of 25,000 to 50,000 inhabitants outside SMSA's

Standard Metropolitan Statistical Areas (SMSA's)
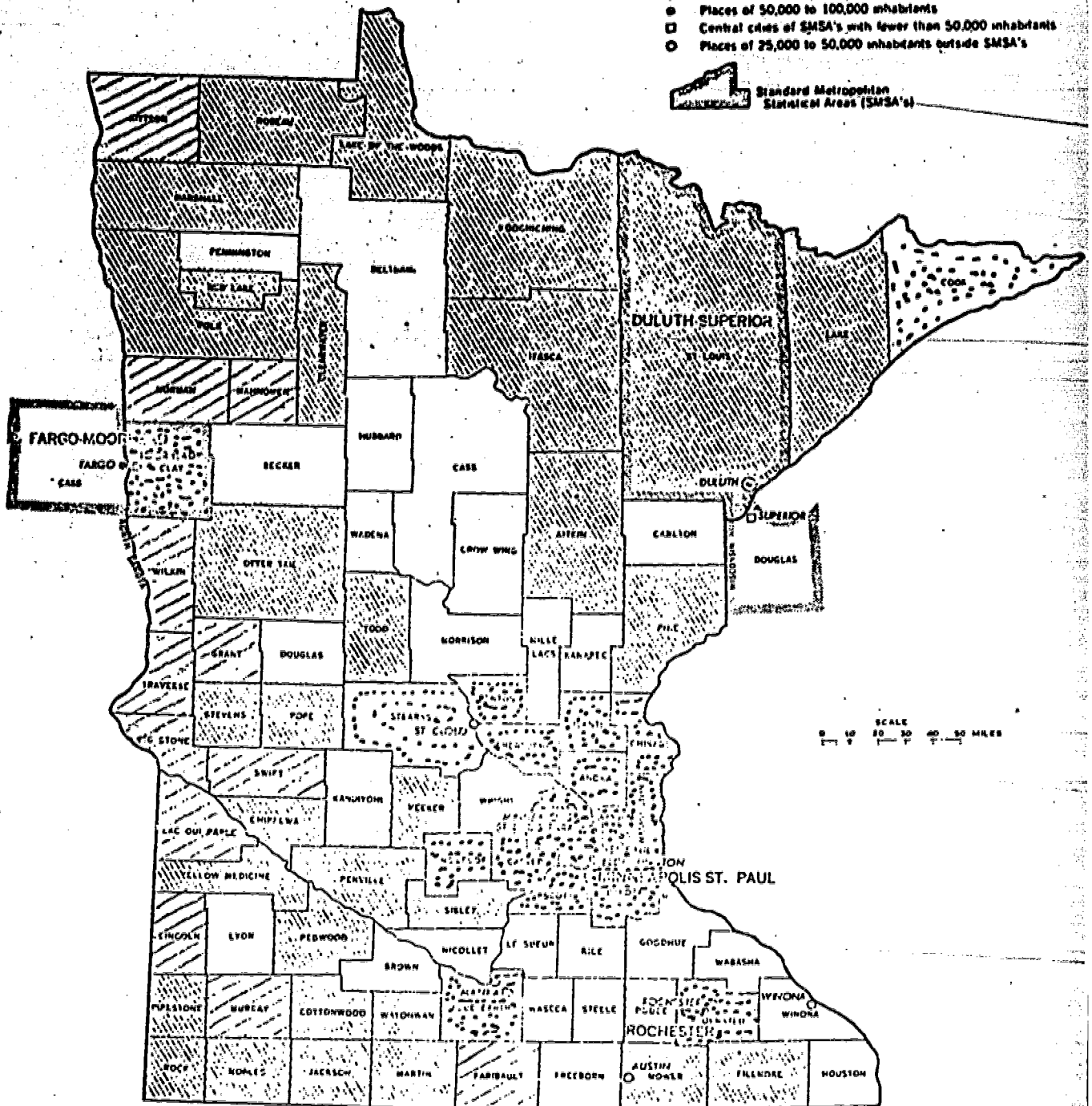
Percent change

+13.3 or more		0 to -9.9
0 to +13.2		-10.0 or more

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Insofar as projecting Minnesota's total population for the
next 25 years is concerned, the State Demographer has based her
calculations on the following major assumptions:

. Current rates of mortality will continue.
. Migration rates will vary at the state level between slight
outmigration and slight inmigration.
. In terms of fertility rates, the average number of children
per female at the end of the child-bearing years will be 1.5,
1.9, 2.1, or 2.3 (The State Demographer has suggested that the
1.9 and 2.1 fertility rates were most likely. The 1.5 and 2.3
fertility rates have been eliminated from further consideration
in this paper.)

Using the first two assumptions and fertility rate of 1.9,
the following total population figures are:

Table I

Males and Females, 0-85+ Years

	Totals	Percent Increase
1970	3,804,971	--
1980	4,076,663	7.1
1990	4,421,483	8.5
2000	4,652,816	5.2

The State Demographer's projections suggest that there will
be a "mini-baby boom" between 1980 and 1990. Live births will
average 71,500 per year during that decade, following which they
will drop back to a per year average of 60,700 between 1995 and
2000. Presently, they have been running at an average of 56,600
(1970-75).

The significant shift will be in the composition of the
state's population: the proportion of persons under the age of
20 will decrease from 40 to 29 percent of the population between
1970 and 2000.

The following tables represent the best available projections
for Minnesota between now and the end of this century. Table II
represents a conservative fertility assumption of 1.9 births
per female through the childbearing years. Table III assumes a
more generous rate of 2.1 births per female. According to
Minnesota's demographer, the latter figure is possible with a
moderate probability.

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Table II

PRELIMINARY INTERPOLATIONS OF POPULATION PROJECTIONS*

STATE OF MINNESOTA

Fertility Assumption of 1.9 Births Per Female

	5 Yrs.	6-13	14-18	5-18
1970	74,582	662,879	387,144	1,124,605
1975	68,500	573,854	420,104	1,062,458
1980	56,544	492,118	383,937	932,599
1985	65,633	479,480	329,328	874,441
1990	71,447	553,923	275,791	901,161
1995	71,056	572,393	336,126	979,575
2000	65,442	542,470	361,819	969,731

* Not adjusted for the seasonality of births or an age attainment
requirement for entry into the Education System.

Table III

PRELIMINARY INTERPOLATIONS OF POPULATION PROJECTIONS*

STATE OF MINNESOTA

Fertility Assumption of 2.1 Births Per Female

	5 Yrs.	6-13	14-18	5-18
1970	74,582	662,879	387,144	1,124,605
1975	68,500	573,854	420,104	1,062,458
1980	62,283	514,060	383,937	960,280
1985	72,268	534,388	329,328	935,984
1990	78,807	610,423	310,092	999,322
1995	78,916	634,715	370,084	1,083,715
2000	74,375	609,705	-399,216	1,083,296

* Not adjusted for the seasonality of births or an age retainment
requirement for entry into the Educational System.

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Table IV shows the estimated enrollment shifts for school-age youngsters for each fertility rate assumption.

Table IV

	2.1 Fertility Rate			Projected Enrollments	
Year	Projection	Net Change	% Decrease	Age 5-13	Age 14-18
1970	1,124,605	--	--	737,461	387,144
1975	1,062,458	- 62,147	- 5%	642,354	420,104
1980	932,599	-129,859	-12%	548,662	383,937
1985	874,441	- 58,158	- 6%	545,113	329,328
1990	901,161	+ 26,720	+ 3%	625,370	275,791
1995	979,575	+ 78,414	+ 8.7%	643,449	336,126
2000	969,731	- 9,844	+ 1%	607,912	361,819

Table V

	2.1 Fertility Rate			Projected Enrollments	
Year	Projection	Net Change	% Decrease	Ages 5-13	Ages 14-18
1970	1,124,605	--	--	737,461	387,144
1975	1,062,458	- 62,147	-5.5%	642,354	420,104
1980	960,280	-102,178	-9.6%	576,343	383,937
1985	935,984	- 24,296	-2.5%	606,656	329,328
1990	999,322	+ 63,338	+6.7%	689,230	310,092
1995	1,083,715	+ 84,393	+8.4%	713,631	370,084
2000	1,083,296	- 419	--	684,080	399.216

(Source: Preliminary Interpolations of Population Projections, Minnesota
State Demographer, 1975)

Graphically, these data look like the following:

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Minnesota Population Projections of 5-13 and 14-18 Year Olds

School-Age Population

```
700,000
600,000                    (5-13 year olds)
500,000
400,000                    (14-18 year olds)
300,000
                           Fertility Assumptions
200,000
                           2.1 Births per female
100,000

                           1.9 Births per female

      1970    1975    1980    1985    1990    1995    2000
                                                       year
```

Minnesota Population Projections of 5-18 Year Olds

Using Two Fertility Assumptions

School-Age Population

```
1,100,000
1,000,000
  900,000
  800,000
  200,000
                           Fertility Assumptions
  100,000
                           2.1 Births per female


                           1.9 Births per female


      1970    1975    1980    1985    1990    1995    2000
                                                       year
```

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Under either projection, it is clear that overall enrollments will decline until about 1985 at which juncture small increases will occur. Under the 1.9 rate, there will be a sharp drop in age 5-13 enrollments,[1] leveling off around 1985 and followed by a sharp increase through 1995, at which point another decline sets in. The 2.1 rate shows a somewhat less serious decline for ages 5-13 enrollments through 1980, followed by very marked increase through 1995 when the decline occurs.

In other words, the projected patterns for age 5-13 enrollments under either fertility assumption are quite similar, although the level of population differs.

For 14-18 enrollments, the patterns of decline for both fertility assumptions hold true through 1990 and then very sharp increases occur bringing 14-18 populations back to levels to be achieved about 1980.

In terms of proportion of 5-13 students to 14-18 students, the shares will remain quite similar under either fertility assumption, but with overall declining populations, proportion can be a somewhat misleading indicator.

Under either of the fertility assumptions, 1990 will be the proportionate high for 5-13 enrollments at 69 percent. The largest share for 14-18 enrollments will occur in 1980.

Given available data on overall population projections and on overall school enrollments, then it is clear that the next critical question concerns the distribution of school-age youngsters in the state.

Presently, data on population projections by Development Region will not be available until July, 1975. For the present, only current enrollment data is at hand.

It would be helpful indeed to be able to put these figures into a "projection matrix" through the year 2000, but as stated earlier, that data will not be available until midsummer.

In the most practical sense, it is impossible to "know" what future enrollments will be. Of the estimates available it is not certain which one may eventually be determined to be correct.

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[1]The age categories (5-13 and 14-18) years reflect the way in which population data were organized by the State Demographer. There is no intent to suggest a preference for a particular form of school organization, nor should any specific arrangement be inferred.

Table VI

Public School Enrollments by Development Region and

Proposed Educational Cooperative Service Unit (ECSU)

Fall, 1974

Region	Enrollment	% of Total	ECSU Enrollment	% of Total
1	24,005	2.6	39,053	4.3
2	15,048	1.6		
3	79,460	8.9	79,460	8.9
4	43,477	4.9	43,477	4.9
5	30,282	3.4	30,282	3.4
6E	23,469	2.6	38,468	4.3
6W	14,999	1.7		
7E	24,204	2.7	72,809	8.1
7W	48,605	5.5		
8	32,562	3.7	32,562	3.7
9	45,606	5.1	45,606	5.1
10	89,986	10.1	89,986	10.1
11	417,832	47.0	417,832	47.0
	889,535	99.8*	889,535	99.8*

*Total is not 100 percent because of errors in rounding.

However, the Council is obligated to base its determinations on the best information on hand. Until the regional projections are produced, it will be impossible to address the specific implications of fluctuating school enrollments in the way the Council would prefer. Instead, the Council's findings are con- strained by the fact that the data on hand suggest on a state- wide basis only how enrollments will alter incoming years.

In these terms, it is clear that enrollments will decline in the short-term future and increase slightly in the long-term future. District-by-district differences are critical in terms of both overall planning and local responsiveness. As has been observed before, those will have to wait.

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In terms of local districts, Minnesota Statutes 120.095 requires an annual census "...of all persons under 21 years of age on September 1" each year. However, cities of the first class and those districts whose boundaries are contiguous with federal census tracts may use decennial and mid-decade federal census tabulations.

At present, the results of the census constitute the best available local projections, assuming, of course, that they are used as such. However, in large cities, federal census data may be less valid primarily because it is collected at less frequent intervals.

In less populous areas, conventional wisdom suggests that the probabilities of errors in collecting data tend to increase. This may be due to casual methodology, lack of control over data collection, or other factors—more often than not a result of inattention.

(Should the proposed educational cooperative service units come into existence, perhaps their offices could be utilized in dealing with the double-edged problem of the census and relevant projections.)

Projections would have to be framed in such a way that they have a useful life on the one hand and enjoy a feedback capability on the other. Two-year projections are not particularly useful; they are of such short life that they cannot influence policy matters. At the same time, 10-year projections may be beyond the interest or ken of local or regional officials. Perhaps a five-year projection could have broad use for local, regional, and statewide planning.

Having been made, the projections should not be assigned to a numerical limbo. There must be an explicit way in which the data are fed back to relevant agencies for maximum impact on questions of finance, teacher utilization, interdistrict cooperation, facilities planning, etc.

In terms of the broad philosophical assumptions which buttress the Council's work, it is appropriate to observe tha the Council's function is not to decide the future; that is a immense problem and better left to more appropriate bodies. The Council is concerned that the state should not adopt anything which "locks in" the present system. Nor, for that matter should the Council promulgate recommendations which have the same outcome. What eventually emerges should be an arrangement which allows the state to respond to a fluid and shifting future.

SUMMARY

In terms of the overall impact of these statewide population projections, the Council wishes to outline the following issues:

. Is the school census as presently construed both appropriate and useful for local districts in estimating future enrollment demands on their school systems?

. Should the educational cooperative service unit's (ECSU) come into existence, what role might they play in supervising or monitoring the school census? What data provided by local districts would be useful if they were also aggregated at the intermediate level?

. If educational cooperative service units (ECSU) do not emerge in parts of the state, what appropriate role might the State Department of Education and other state agencies play in ensuring comparable census results? How might those additional activities be funded?

. How might the projection aspect of the census be emphasized? How difficult is it for school districts to plan realistically for 10 to 15 years in the future?

. How might districts utilize census and projection data in planning activities with constitutents and taxpayers?

. How frequently should census and projection data be discussed by both local administrations and local boards? Would such discussions be useful in reinforcing the importance of projections in all educational planning (e.g., school facilities, staffing, program, etc.)?

. To what extent might project data play an important role in helping districts anticipate the likely relationship of enrollment trends to emerging school finance patterns?

Population is one of the common factors tied to a series of other concerns shared by educators, school board members, and citizens. As the population projects become more detailed (later in 1975), the impact of enrollment changes will permit a more specific discussion of school district structures, school finance, educational program, school facilities and staffing.

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5.

PROJECTED KINDERGARTEN, ELEMENTARY AND SECONDARY AGE POPULATION BY COUNTY 1970 - 2000

Preface

The Advisory Council on Fluctuating School Enrollments was or-
ganized in 1974 to "examine, by whatever means it deems appropriate,
the impact of fluctuating school enrollments and their consequen-
tial effect on the quality and cost of education" [*see* Section A-
1: Laws of Minnesota, 1974, Chapter 355, Sec. 68, Subd. 31(b)].

This paper presents the projected kindergarten, elementary and
secondary age population by county, 1970-2000. The projections
by county reflect the anticipated impact of fluctuating school
enrollments for the state of Minnesota.

The information and data presented in this paper has been pro-
vided by the office of the State Demographer.

Definitions

Kindergarten* – includes children who will be 5 years old
by September 1 of each year.
Elementary* – includes children who will be 6 to 11 years
old by September 1 of each year.
Secondary* – includes children who will be 12 to 17
years old by September 1 of each year.

* The figures given include anticipated birth rate and
net immigration of children. The birth rate projection
component is based on 1.9 for fertility rate.

Confidence Level of Data

1. For the state of Minnesota as a whole, the projection
number are the most reliable.

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2. The data given up to 1985 can be considered the least subject to error, as all children who will be enrolled have already been born except for these born in the upcoming four years. Therefore, it is not unrealistic to anticipate the various needs of education for that period of time.

3. The state as a whole has shown a precedent for net in-migration of school-age children. Therefore, the figures reflected are greater than the anticipated birth rate.

4. The projected secondary level data would be considered the least subject to error as these students have already been born.

Limitations of Data

1. Projections for 1990+ might be considered more speculative as they are based more on fertility assumptions rather than actual births and migration data.

2. At the county level the projections are based on two migration assumptions which might make the figures less effective:
   a) Rate of migration (in- and out-) assumption of school-age persons.
   b) The migration pattern of females assumption in the child-bearing ages. This would be important for the upcoming four years.

3. Hennepin and Ramsey County data. Given the assumptions made in the projection model the projected decline may not be adequate. If out-migration diminished, we could anticipate the data to be accurate. However, if out-migration continues, the figures are probably too high.

General Notes

1. Note those areas with drastic enrollment drops. These areas are characterized by an older age structure and generally skewed to producing minimum growth. These areas have also shown a precedent for out-migration, especially young adults.

2. There are generally four groups of counties which reflect diverse population and enrollment trends which, in turn, may affect the educational conditions in these areas.
   a) Those with projected severe enrollment decline which are rural in residence and not sparsely populated. (E.g., Redwood County.)
   b) Those with a projected 30 through 40 percent enrollment decline which are characterized by a large geographic area and sparsely populated. (E.g., Cook County.)

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c)   Those with a projected enrollment decline attributed to out-migration which are urban in residence but characterized by out-migration of the general population. (E.g., Ramsey and Hennepin County.)
d)   Those with potential growth in enrollments and the general population for a limited period of time. (E.g., Chisago County.)

Attachments

1.   Kindergarten, Elementary, and Secondary Age Population Data by County, 1970-2000.
2.   Map 1: Rapid Percent Population Growth 1970-1974

     Map 2: 1985 Projected School Age Population as a Percent of 1970, by County

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PROJECTED KINDERGARTEN AGE POPULATION BY COUNTY,
1970-2000

COUNTY	1970		1975		1980		1985		1990		1995		2000	
	NUMBER	%	NUMBER	% of 1970	NUMBER	% of 1970	NUMBER	% of 1970	NUMBER	% of 1970	NUMBER	% of 1970	NUMBER	% of 1970
Aitkin	191	100.0	141	73.8	120	62.8	151	79.1	163	85.3	152	79.6	130	68.1
Anoka	4,041	100.0	3,614	89.4	3,252	80.5	3,739	92.5	4,331	107.2	4,580	113.3	4,469	110.6
Becker	484	100.0	370	76.5	288	59.5	364	75.2	403	83.3	382	78.9	330	68.2
Beltrami	480	100.0	389	81.0	475	99.0	552	115.0	544	113.3	492	102.5	446	92.9
Benton	459	100.0	405	88.2	336	73.2	391	85.2	432	84.1	434	94.6	401	87.4
Big Stone	145	100.0	109	75.2	82	56.6	103	71.0	108	74.5	98	67.6	82	56.6
Blue Earth	811	100.0	694	85.6	1,035	127.6	1,118	137.9	1,035	127.6	921	113.6	876	108.0
Brown	556	100.0.	450	80.9	419	75.4	480	85.3	506	91.0	479	86.2	426	76.6
Carlton	562	100.0	440	78.3	366	65.1	435	77.4	470	83.6	444	79.0	384	68.3
Carver	617	100.0	550	89.1	504	81.7	587	95.1	673	109.1	696	112.8	674	109.2
Cass	303	100.0	229	75.6	196	64.7	245	80.9	270	89.1	260	85.8	232	76.6
Chippewa	273	100.0	209	67.6	187	68.5	222	81.3	237	86.8	220	80.6	191	70.0
Chisago	348	100.0	340	97.7	392	112.6	478	137.4	561	161.2	574	164.9	599	172.1
Clay	823	100.0	677	82.3	878	106.7	965	117.3	922	112.0	825	100.2	765	93.0
Clearwater	154	100.0	125	81.2	98	63.6	121	70.6	133	86.4	130	84.4	116	75.3
Cook	62	100.0	48	77.4	36	58.1	39	62.9	42	67.7	38	61.3	32	51.6
Cottonwood	270	100.0	210	77.8	170	63.0	204	75.6	217	80.4	203	75.2	173	64.1
Crow Wing	637	100.0	540	84.8	654	87.0	654	102.7	690	108.3	668	104.9	623	97.8
Dakota	3,410	100.0	3,181	93.3	3,005	88.1	3,429	100.6	3,970	116.4	4,246	124.5	4,273	125.3
Dodge	271	100.0	210	77.5	176	64.9	204	75.3	222	81.9	214	79.0	191	70.5
Douglas	396	100.0	348	87.9	356	89.9	434	109.6	473	119.4	461	116.4	442	111.6
Faribault	368	100.0	276	75.0	235	63.9	276	75.0	290	78.8	262	71.2	219	59.5
Fillmore	395	100.0	311	78.7	247	62.5	292	73.9	316	80.0	293	74.2	250	63.3
Freeborn	693	100.0	578	83.4	503	72.6	571	82.4	590	85.1	548	79.1	476	68.7
Goodhue	653	100.0	550	84.2	549	84.1	639	97.9	691	105.8	682	104.4	644	98.6
Grant	122	100.0	93	76.2	79	64.8	100	82.0	106	86.9	97	79.5	81	66.4
Hennepin	16,791	100.0	14,057	83.7	15,856	94.4	16,528	98.4	15,856	94.4	14,491	86.3	13,261	79.0
Houston	340	100.0	298	87.7	233	68.5	275	80.9	295	86.8	284	83.5	261	76.8
Hubbard	196	100.0	146	74.5	136	69.4	174	88.8	195	99.5	194	99.0	177	90.3
Isanti	330	100.0	343	103.9	395	119.7	459	139.1	517	156.7	552	167.3	577	174.8

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COUNTY	1970 NUMBER	%	1975 NUMBER	% of 1970	1980 NUMBER	% of 1970	1985 NUMBER	% of 1970	1990 NUMBER	% of 1970	1995 NUMBER	% of 1970	2000 NUMBER	% of 1970
Itasca	664	100.0	525	79.1	458	69.0	563	84.8	592	89.2	542	81.6	459	69.1
Jackson	249	100.0	195	78.3	169	67.9	204	81.9	210	84.3	191	76.7	163	65.5
Kanabec	185	100.0	179	96.2	176	94.6	206	110.8	230	123.7	242	103.1	239	128.5
Kandiyohi	534	100.0	435	81.5	426	79.8	521	97.6	557	104.3	523	97.9	239	128.5
Kittson	112	100.0	95	84.8	76	67.9	93	83.0	99	88.4	88	78.6	74	66.1
Koochiching	330	100.0	263	79.7	229	69.4	273	82.7	283	85.8	256	77.6	215	65.2
Lac Qui Parle	185	100.0	147	79.5	121	65.4	151	81.6	166	89.7	154	83.2	128	69.2
Lake	279	100.0	200	71.7	173	62.0	206	73.8	224	80.3	205	73.5	172	61.7
Lake of the Woods	72	100.0	57	79.2	47	65.3	56	77.8	59	81.9	53	73.6	44	61.1
Le Sueur	424	100.0	392	92.5	318	75.0	366	86.3	395	93.7	390	92.0	361	85.1
Lincoln	152	100.0	106	69.7	80	52.6	100	65.8	110	72.4	102	67.1	83	54.6
Lyon	441	100.0	368	83.4	357	81.0	437	99.1	454	102.9	415	94.1	367	83.2
McLeod	508	100.0	468	92.1	472	92.9	547	107.7	592	116.5	593	116.7	583	114.8
Mahnomen	121	100.0	102	84.3	63	52.1	81	66.9	89	73.6	88	72.7	77	63.6
Marshall	256	100.0	208	81.3	155	60.5	190	74.2	208	81.3	200	78.1	174	68.0
Martin	429	100.0	347	80.9	310	72.3	355	82.8	370	86.2	343	80.0	295	68.8
Meeker	347	100.0	288	83.0	254	73.2	301	86.7	319	91.9	306	88.2	272	78.4
Mille Lacs	305	100.0	260	85.0	231	75.5	271	88.6	299	97.7	295	96.4	275	89.9
Morrison	571	100.0	473	82.8	331	58.0	414	72.5	463	81.1	445	77.9	384	67.3
Mower	805	100.0	635	78.9	549	68.2	671	83.4	706	87.7	637	79.1	538	66.8
Murray	239	100.0	177	74.1	130	54.4	169	70.7	182	76.2	164	68.6	134	56.1
Nicollet	446	100.0	380	85.2	458	102.7	502	112.6	498	111.7	461	103.4	435	97.5
Nobles	437	100.0	357	81.7	297	68.0	351	80.3	369	84.4	336	76.9	288	65.9
Norman	165	100.0	130	78.8	98	59.4	122	73.9	132	80.0	122	73.9	103	62.4
Olmsted	1,780	100.0	1,557	87.5	1,626	91.4	1,742	97.9	1,809	101.6	1,805	101.4	1,743	97.9
Otter Tail	791	100.0	635	80.3	585	74.0	707	89.4	756	95.6	708	89.5	628	79.4
Pennington	238	100.0	212	89.1	225	94.5	269	113.0	285	119.8	272	114.3	254	106.7
Pine	308	100.0	256	83.1	225	73.1	275	89.3	311	101.0	308	100.0	287	93.2
Pipestone	240	100.0	184	76.7	152	63.3	189	78.8	198	82.5	180	75.0	153	63.8
Polk	636	100.0	499	78.5	433	68.1	515	81.0	540	84.9	494	77.7	421	66.2
Pope	182	100.0	145	79.7	123	67.6	150	82.4	164	90.1	154	84.6	135	74.2
Ramsey	8,666	100.0	7,352	84.8	7,403	85.4	7,924	91.4	7,755	89.5	7,105	82.0	6,384	73.7
Red Lake	119	100.0	94	79.0	62	52.1	74	62.2	82	68.9	80	67.2	70	58.8
Redwood	382	100.0	318	83.2	231	60.5	281	73.6	304	79.6	286	74.9	245	64.1

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COUNTY	1970 NUMBER	1970 %	1975 NUMBER	1975 % of 1970	1980 NUMBER	1980 % of 1970	1985 NUMBER	1985 % of 1970	1990 NUMBER	1990 % of 1970	1995 NUMBER	1995 % of 1970	2000 NUMBER	2000 % of 1970
Renville	392	100.0	312	79.6	230	58.7	287	73.2	313	79.8	292	74.5	245	62.5
Rice	727	100.0	633	87.8	741	101.9	808	111.1	794	109.2	736	101.2	691	95.0
Rock	206	100.0	170	82.5	150	72.8	178	86.4	187	90.8	173	84.0	'55	75.2
Roseau	233	100.0	195	83.7	158	67.8	189	81.1	207	88.8	201	86.3	1'0	77.2
St. Louis*	3,877	100.0	3,044	78.5	2,976	76.8	3,313	85.5	3,282	84.7	2,941	75.9	2,5\'5	66.7
Scott	788	100.0	694	88.1	588	74.6	696	88.3	802	101.8	836	106.1	805	102.2
Sherburne	377	100.0	394	104.5	433	114.9	526	139.5	607	161.0	658	174.5	685	181.7
Sibley	301	100.0	231	76.7	201	66.8	238	79.1	260	86.4	250	83.1	221	73.4
Stearns	2,020	100.0	1,717	85.0	1,698	84.1	2,032	100.6	2,107	104.3	1,993	98.7	1,839	91.0
Steele	524	100.0	432	82.4	403	76.9	468	89.3	498	95.0	469	89.5	415	79.2
Stevens	186	100.0	150	80.6	158	84.9	187	100.5	180	96.8	155	93.3	132	71.0
Swift	231	100.0	205	88.7	143	61.9	174	75.3	188	81.4	177	76.6	149	64.5
Todd	423	100.0	341	80.6	262	61.9	325	76.8	358	84.6	342	80.9	300	70.9
Traverse	120	100.0	83	69.2	64	53.3	82	68.3	92	76.7	83	69.2	68	56.7
Wabasha	338	100.0	277	82.2	222	65.7	267	79.0	292	86.4	280	82.8	247	73.1
Wadena	245	100.0	185	75.5	139	56.7	176	71.8	195	79.6	183	74.7	156	63.7
Waseca	316	100.0	273	86.4	242	76.6	280	88.6	300	94.9	287	90.8	260	82.3
Washington	2,121	100.0	1,821	85.9	1,604	75.6	1,856	87.5	2,195	103.5	2,330	109.9	2,285	107.7
Watonwan	226	100.0	182	80.5	161	71.2	189	83.6	196	86.7	176	77.9	147	65.0
Wilkin	181	100.0	139	76.8	112	61.9	135	74.6	142	78.5	127	70.2	106	58.6
Winona	745	100.0	648	87.0	741	99.5	813	109.1	784	105.2	711	95.4	655	87.9
Wright	867	100.0	835	96.3	840	96.9	1,029	118.7	1,199	138.3	1,224	141.2	1,260	145.3
Yellow Medicine	259	100.0	190	73.4	161	62.2	201	77.6	220	84.9	203	78.4	168	64.9
TOTAL	72,481	100.0	61,116	84.3	60,628	83.7	67,956	93.8	70,469	97.2	67,295	92.8	62,219	85.8

*NOTE: Not based on Alternative St. Louis County Projection.

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PROJECTED ELEMENTARY SCHOOL AGE POPULATION BY COUNTY,
1970-2000

COUNTY	1970 NUMBER	1970 %	1975 NUMBER	1975 % of 1970	1980 NUMBER	1980 % of 1970	1985 NUMBER	1985 % of 1970	1990 NUMBER	1990 % of 1970	1995 NUMBER	1995 % of 1970	2000 NUMBER	2000 % of 1970
Aitkin	1,385	100.0	1,064	76.8	741	53.5	820	59.2	965	69.7	991	71.6	877	63.3
Anoka	26,596	100.0	24,728	93.0	19,681	74.0	20,581	77.4	25,052	94.2	28,380	106.7	28,486	107.1
Becker	3,431	100.0	2,719	79.3	1,868	54.4	1,993	58.1	2,396	69.8	2,502	72.9	2,252	65.6
Beltrami	3,322	100.0	2,742	82.5	2,540	76.5	2,998	90.3	3,261	98.2	3,173	95.5	2,887	86.9
Benton	3,112	100.0	2,776	89.2	2,093	67.3	2,150	69.1	2,534	81.4	2,740	88.1	2,619	84.2
Big Stone	1,030	100.0	783	76.0	523	50.8	548	53.2	634	61.6	627	60.9	545	52.9
Blue Earth	5,699	100.0	4,742	83.2	5,192	91.1	6,163	108.1	6,298	110.5	5,929	104.0	5,538	97.2
Brown	3,879	100.0	3,150	81.2	2,466	63.6	2,615	67.4	2,968	76.5	3,036	78.3	2,775	71.5
Carlton	3,934	100.0	3,139	79.8	2,257	57.4	2,351	59.8	2,739	69.6	2,827	71.9	2,531	64.3
Carver	4,188	100.0	3,812	91.0	3,028	72.3	3,202	76.5	3,911	93.4	4,359	104.1	4,335	103.5
Cass	2,119	100.0	1,720	81.2	1,242	58.6	1,374	64.8	1,635	77.2	1,727	81.5	1,596	75.3
Chippewa	1,926	100.0	1,492	77.5	1,114	57.8	1,199	62.3	1,379	71.6	1,400	72.7	1,249	64.9
Chisago	2,426	100.0	2,410	99.3	2,296	94.6	2,771	114.2	3,424	141.1	3,747	154.5	3,963	163.4
Clay	5,758	100.0	4,695	81.5	4,590	79.7	5,294	91.9	5,554	96.5	5,301	92.1	4,880	84.8
Clearwater	1,063	100.0	898	84.5	619	58.2	654	61.5	773	72.7	823	77.5	757	71.2
Cook	435	100.0	343	78.9	231	53.1	214	49.2	244	56.1	245	56.3	213	49.0
Cottonwood	1,897	100.0	1,487	78.4	1,046	55.1	1,096	57.8	1,256	66.2	1,280	67.5	1,132	59.7
Crow Wing	4,454	100.0	3,830	86.0	3,210	72.1	3,631	81.5	4,143	93.0	4,322	97.0	4,105	92.2
Dakota	22,565	100.0	21,576	95.6	17,938	79.5	19,039	84.4	23,141	102.6	26,456	117.2	27,257	120.8
Dodge	1,870	100.0	1,504	80.4	1,085	58.0	1,114	59.6	1,294	69.2	1,357	72.6	1,250	66.8
Douglas	2,813	100.0	2,433	86.5	2,072	73.7	2,393	85.1	2,822	100.3	2,983	106.0	2,897	103.0
Faribault	2,650	100.0	1,987	75.0	1,428	53.9	1,484	56.0	1,695	64.0	1,680	63.4	1,452	54.8
Fillmore	2,782	100.0	2,204	79.2	1,545	55.5	1,568	56.4	1,829	65.7	1,862	66.9	1,645	59.1
Freeborn	4,893	100.0	3,997	81.7	3,014	61.6	3,098	63.3	3,450	70.5	3,468	70.9	3,094	63.2
Goodhue	4,537	100.0	3,935	86.7	3,233	71.3	3,594	79.2	4,153	91.5	4,423	97.5	4,261	93.9
Grant	888	100.0	675	76.0	481	54.2	534	60.1	619	69.7	623	70.2	536	60.4
Hennepin	115,667	100.0	95,385	82.5	86,216	74.5	91,685	79.3	94,817	82.0	91,927	79.5	84,458	73.0
Houston	2,425	100.0	2,043	84.3	1,485	61.2	1,503	62.0	1,740	71.8	1,815	74.9	1,707	70.4
Hubbard	1,378	100.0	1,112	80.7	835	60.6	971	70.5	1,175	85.3	1,271	92.2	1,201	87.2
Isanti	2,296	100.0	2,405	104.7	2,313	100.7	2,710	118.0	3,213	139.9	3,642	158.6	3,840	167.2

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COUNTY	1970 NUMBER	%	1975 NUMBER	% of 1970	1980 NUMBER	% of 1970	1985 NUMBER	% of 1970	1990 NUMBER	% of 1970	1995 NUMBER	% of 1970	2000 NUMBER	% of 1970
Itasca	4,803	100.0	3,740	77.9	2,756	57.4	3,010	62.7	3,462	72.1	3,471	72.3	3,025	63.0
Jackson	1,791	100.0	1,383	77.2	1,019	56.9	1,088	60.7	1,236	69.0	1,220	68.1	1,071	59.8
Kanabec	1,318	100.0	1,248	94.7	1,056	80.1	1,175	89.2	1,387	105.2	1,555	118.0	1,574	119.4
Kandiyohi	3,766	100.0	3,040	80.7	2,463	65.4	2,786	74.0	3,257	86.5	3,329	88.4	3,066	81.4
Kittson	821	100.0	666	81.1	474	57.7	496	60.4	575	70.0	569	69.3	488	59.4
Koochiching	2,364	100.0	1,865	78.9	1,378	58.3	1,464	61.9	1,661	70.3	1,643	69.5	1,424	60.2
Lac Qui Parle	1,375	100.0	1,051	76.4	746	54.3	802	58.3	957	69.6	979	71.2	849	61.8
Lake	2,003	100.0	1,459	72.8	1,045	52.2	1,105	55.2	1,294	64.6	1,307	65.3	1,136	56.7
Lake of the Woods	513	100.0	412	80.3	288	56.1	303	59.1	346	67.5	343	66.9	296	57.7
Le Sueur	2,906	100.0	2,663	91.6	2,001	68.9	2,029	69.8	2,336	80.4	2,484	85.5	2,360	81.2
Lincoln	1,065	100.0	790	74.2	509	47.8	534	50.1	634	59.5	649	60.9	554	52.0
Lyon	3,108	100.0	2,540	81.7	2,063	66.4	2,323	74.7	2,664	85.7	2,651	85.3	2,380	76.6
McLeod	3,469	100.0	3,168	91.3	2,746	79.6	3,038	87.6	3,520	101.5	3,779	108.9	3,757	108.3
Mahnomen	845	100.0	711	84.1	441	52.2	426	50.4	511	60.5	546	64.6	498	58.9
Marshall	1,784	100.0	1,472	82.5	1,003	56.2	1,023	57.3	1,208	67.7	1,265	70.9	1,146	64.2
Martin	3,045	100.0	2,455	80.6	1,848	60.7	1,930	63.4	2,167	71.2	2,184	71.7	1,934	63.5
Meeker	2,444	100.0	2,040	83.5	1,533	62.7	1,641	67.1	1,881	77.0	1,953	79.9	1,789	73.2
Mille Lacs	2,102	100.0	1,844	87.7	1,422	67.6	1,518	72.2	1,784	84.9	1,909	90.8	1,824	86.8
Morrison	4,020	100.0	3,293	81.9	2,196	54.6	2,199	54.7	2,666	66.3	2,812	70.0	2,532	63.0
Mower	5,859	100.0	4,497	76.0	3,316	56.6	3,581	61.1	4,125	70.4	4,091	69.8	3,550	60.6
Murray	1,739	100.0	1,276	73.4	841	48.4	888	51.1	1,055	60.7	1,053	60.6	894	51.4
Nicollet	3,067	100.0	2,604	84.9	2,452	80.0	2,759	90.0	2,966	96.7	2,933	95.6	2,760	90.0
Nobles	3,123	100.0	2,484	79.5	1,821	58.3	1,889	60.5	2,156	69.0	2,149	68.8	1,889	60.5
Norman	1,180	100.0	922	78.1	633	53.6	659	55.9	774	65.6	786	66.6	690	58.5
Olmsted	11,751	100.0	10,558	117.5	9,201	78.3	9,715	82.7	10,696	91.0	11,293	96.1	11,072	94.2
Otter Tail	5,665	100.0	4,573	80.7	3,503	61.8	3,862	68.2	4,479	79.1	4,592	81.1	4,178	73.8
Pennington	1,658	100.0	1,462	88.2	1,267	76.4	1,462	88.2	1,679	101.3	1,734	104.6	1,640	98.9
Pine	2,165	100.0	1,837	84.8	1,392	64.3	1,527	70.5	1,843	85.1	1,991	92.0	1,904	87.9
Pipestone	1,694	100.0	1,310	77.3	936	55.3	1,002	59.1	1,157	68.3	1,152	68.0	1,009	59.6
Polk	4,502	100.0	3,558	79.0	2,612	58.0	2,767	61.5	3,160	70.2	3,161	70.2	2,769	61.5
Pope	1,366	100.0	1,051	76.9	773	56.6	833	61.0	984	72.0	1,018	74.5	922	67.5
Ramsey	59,400	100.0	49,406	83.2	41,507	69.9	43,256	72.8	45,706	76.9	44,662	75.2	40,566	68.3
Red Lake	806	100.0	660	81.9	421	52.2	395	49.0	471	58.4	500	62.0	453	56.2
Redwood	2,691	100.0	2,208	82.1	1,503	55.9	1,507	56.0	1,761	65.4	1,810	67.3	1,606	59.7

COUNTY	1970 NUMBER	%	1975 NUMBER	% of 1970	1980 NUMBER	% of 1970	1985 NUMBER	% of 1970	1990 NUMBER	% of 1970	1995 NUMBER	% of 1970	2000 NUMBER	% of 1970
Renville	2,815	100.0	2,212	78.6	1,485	52.8	1,531	54.4	1,810	64.3	1,858	66.0	1,623	57.7
Rice	5,126	100.0	4,441	85.6	4,108	80.1	4,595	89.6	4,902	95.6	4,862	94.8	4,584	89.4
Rock	1,491	100.0	1,177	78.9	898	60.2	953	63.9	1,093	73.3	1,101	73.8	1,003	67.3
Roseau	1,607	100.0	1,370	85.3	980	61.0	1,017	63.3	1,198	74.5	1,267	78.8	1,169	72.7
St. Louis*	27,519	100.0	21,391	77.7	17,032	61.9	18,033	65.5	19,481	70.8	18,906	68.7	16,876	61.3
Scott	5,266	100.0	4,788	90.9	3,651	69.3	3,821	72.5	4,664	88.6	5,233	99.4	5,158	98.7
Sherburne	2,545	100.0	2,687	105.6	2,500	98.2	2,968	116.6	3,622	142.3	4,181	164.3	4,411	173.3
Sibley	2,129	100.0	1,671	78.5	1,221	57.4	1,295	60.8	1,519	71.3	1,590	74.7	1,455	68.3
Stearns	13,818	100.0	11,893	86.1	9,845	71.2	11,012	79.7	12,527	90.7	12,760	92.3	11,946	86.5
Steele	3,647	100.0	3,044	83.5	2,387	65.5	2,567	70.4	2,940	80.6	3,015	82.7	2,740	75.1
Stevens	1,361	100.0	1,051	77.2	880	64.7	1,000	73.5	1,075	79.0	1,004	73.8	864	63.5
Swift	1,681	100.0	1,399	83.2	945	56.2	929	55.3	1,090	64.8	1,121	66.7	984	58.5
Todd	2,991	100.0	2,437	81.5	1,682	56.2	1,758	58.8	2,096	70.1	2,191	73.3	1,992	66.6
Traverse	851	100.0	621	73.0	405	47.6	435	51.1	525	61.7	532	64.3	454	53.3
Wabasha	2,325	100.0	1,950	83.9	1,383	59.5	1,436	61.8	1,688	72.6	1,767	76.0	1,608	69.2
Wadena	1,735	100.0	1,338	77.1	903	52.0	941	54.2	1,135	65.5	1,177	67.8	1,045	60.2
Waseca	2,210	100.0	1,867	84.5	1,452	65.7	1,519	68.7	1,752	79.3	1,815	82.1	1,681	76.1
Washington	14,110	100.0	12,736	90.3	9,841	69.7	10,232	72.5	12,718	90.1	14,554	103.1	14,712	104.3
Watonwan	1,658	100.0	1,284	77.4	962	58.0	1,021	61.6	1,149	69.3	1,133	68.3	975	58.8
Wilkin	1,293	100.0	993	76.8	694	53.7	718	55.5	827	64.0	815	63.0	701	54.2
Winona	5,132	100.0	4,422	86.2	4,040	78.7	4,475	87.2	4,717	91.9	4,562	88.9	4,201	81.9
Wright	5,863	100.0	5,743	98.0	5,018	85.6	5,783	98.6	7,147	121.9	7,796	133.0	8,164	139.2
Yellow Medicine	1,876	100.0	1,381	73.6	978	52.1	1,061	56.6	1,270	67.7	1,291	68.8	1,117	59.5
TOTAL	500,645	100.0	421,905	84.3	348,837	69.7	373,445	74.6	416,623	83.2	427,046	85.3	401,457	80.2

*NOTE: Not based on Alternative St. Louis County Projection.

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PROJECTED SECONDARY SCHOOL AGE POPULATION BY COUNTY, 1970-2000

COUNTY	1970 NUMBER	1970 %	1975 NUMBER	1975 % of 1970	1980 NUMBER	1980 % of 1970	1985 NUMBER	1985 % of 1970	1990 NUMBER	1990 % of 1970	1995 NUMBER	1995 % of 1970	2000 NUMBER	2000 % of 1970
Aitkin	1,537	100.0	1,773	115.4	1,350	87.8	957	62.3	899	58.5	1,092	71.1	1,152	75.0
Anoka	22,613	100.0	31,257	138.2	31,289	138.4	25,225	111.6	23,842	105.4	28,702	126.9	32,880	145.4
Becker	3,649	100.0	4,150	113.7	3,437	94.2	2,472	67.7	2,247	61.6	2,757	75.6	2,970	81.4
Beltrami	4,494	100.0	4,328	96.3	3,913	87.1	3,367	74.9	3,747	83.4	4,237	94.3	2,970	95.3
Benton	3,102	100.0	3,668	118.3	3,440	110.9	2,723	87.8	2,437	78.6	2,890	93.2	3,195	103.0
Big Stone	1,111	100.0	1,172	105.5	928	83.5	648	58.3	560	50.4	668	60.3	682	61.4
Blue Earth	8,793	100.0	7,700	87.6	7,145	81.3	6,801	77.4	8,068	91.8	8,643	98.3	8,502	96.7
Brown	4,087	100.0	4,523	110.7	3,842	94.0	2,990	73.2	2,832	69.3	3,263	79.8	3,421	83.7
Carlton	4,161	100.0	4,633	111.3	3,835	92.2	2,805	67.4	2,518	60.5	2,986	71.8	3,169	76.2
Carver	4,054	100.0	5,142	126.8	4,795	118.3	3,762	92.8	3,643	89.9	4,472	110.3	5,095	125.7
Cass	2,355	100.0	2,649	112.5	2,269	96.4	1,694	71.9	1,629	69.2	1,978	84.0	2,143	91.0
Chippewa	2,095	100.0	2,216	105.8	1,790	85.4	1,345	64.2	1,256	60.0	1,467	70.0	1,534	73.2
Chisago	2,469	100.0	3,237	131.1	3,366	136.3	3,214	130.2	3,625	146.8	4,220	170.9	4,900	198.5
Clay	8,120	100.0	7,478	92.1	6,760	83.3	5,998	73.9	6,735	82.9	7,341	90.4	7,302	89.9
Clearwater	1,067	100.0	1,273	119.3	1,075	100.8	784	73.5	691	64.8	841	78.8	908	85.1
Cook	460	100.0	504	109.6	409	88.9	286	62.2	227	49.4	257	55.9	270	58.7
Cottonwood	2,020	100.0	2,166	107.2	1,746	86.4	1,280	63.4	1,127	55.8	1,317	65.2	1,378	68.2
Crow Wing	5,072	100.0	5,579	110.0	4,908	96.8	4,106	81.0	4,196	82.7	4,903	96.7	5,207	102.7
Dakota	19,636	100.0	27,164	138.3	27,800	141.6	23,375	119.0	22,919	116.7	27,656	140.8	32,062	163.3
Dodge	1,863	100.0	2,141	114.9	1,819	97.6	1,319	70.8	1,190	63.9	1,394	74.8	1,501	80.6
Douglas	3,508	100.0	3,590	102.3	3,212	91.6	2,747	78.3	2,874	81.9	3,451	98.4	3,747	106.8
Faribault	3,005	100.0	3,071	102.2	2,379	79.2	1,695	56.4	1,541	51.3	1,794	59.7	1,839	61.2
Fillmore	2,969	100.0	3,211	108.2	2,627	88.5	1,874	63.1	1,632	55.0	1,794	65.1	2,035	68.5
Freeborn	5,467	100.0	5,777	105.7	4,772	87.3	3,663	67.0	3,293	60.2	3,736	68.3	2,035	70.3
Goodhue	4,931	100.0	5,636	114.3	5,047	102.4	4,177	84.7	4,207	85.3	4,932	100.0	5,344	108.4
Grant	995	100.0	1,061	106.6	804	80.8	593	59.6	550	55.3	661	66.4	682	68.5
Hennepin	128,759	100.0	130,925	101.7	114,848	89.2	99,613	77.4	100,876	78.3	106,060	82.4	104,269	81.0
Houston	2,643	100.0	2,846	107.7	2,435	92.1	1,876	71.0	1,638	62.0	1,928	73.0	2,058	81.0
Hubbard	1,454	100.0	1,760	121.1	1,487	102.3	1,130	77.7	1,147	78.9	1,416	97.4	1,562	77.9
Isanti	2,409	100.0	3,164	131.3	3,336	138.5	3,259	135.3	3,591	149.1	4,252	176.5	4,837	200.8

TY	1970 NUMBER	%	1975 NUMBER	% of 1970	1980 NUMBER	% of 1970	1985 NUMBER	% of 1970	1990 NUMBER	% of 1970	1995 NUMBER	% of 1970	2000 NUMBER	% of 1970
	5,723	100.0	5,786	101.1	4,523	79.0	3,399	59.4	3,161	55.2	3,754	65.6	3,861	67.5
	2,195	100.0	2,128	97.0	1,681	76.6	1,234	56.2	1,145	52.2	1,340	61.0	1,363	62.1
	1,349	100.0	1,705	126.4	1,576	116.8	1,395	103.4	1,403	104.0	1,665	123.4	1,876	139.1
	4,579	100.0	4,531	99.0	3,816	83.3	3,042	66.4	3,063	66.9	3,672	80.2	3,875	84.6
	972	100.0	997	102.6	777	79.9	577	59.4	511	52.6	610	62.8	625	64.3
ing	2,755	100.0	2,800	101.6	2,236	81.2	1,662	60.3	1,533	55.6	1,789	64.9	1,822	66.1
Parle	1,570	100.0	1,654	104.8	1,237	78.4	896	56.8	819	51.9	1,006	63.8	1,063	67.4
	2,128	100.0	2,309	108.5	1,770	83.2	1,239	58.2	1,149	54.0	1,365	64.1	1,430	67.2
the Woods	560	100.0	620	110.7	493	88.0	357	63.8	319	57.0	377	67.3	384	68.6
	2,928	100.0	3,495	119.4	3,241	110.7	2,607	89.0	2,289	78.2	2,670	91.2	2,889	98.7
	1,153	100.0	1,229	106.6	960	83.3	635	55.1	548	47.4	670	58.1	705	61.1
	4,184	100.0	3,899	93.2	3,426	81.9	2,757	65.0	2,785	66.6	3,293	78.7	3,415	81.6
	3,681	100.0	4,084	110.9	3,936	106.9	3,477	94.5	3,511	95.4	4,112	111.7	4,493	122.1
	845	100.0	973	115.1	825	97.6	566	67.0	433	51.2	539	63.8	583	69.0
	1,876	100.0	2,090	111.4	1,756	93.6	1,255	66.9	1,076	57.4	1,301	69.3	1,397	74.5
	3,341	100.0	3,582	107.2	2,900	86.8	2,194	65.7	2,020	60.5	2,311	69.2	2,380	71.2
	2,645	100.0	2,943	113.3	2,462	73.1	1,902	71.9	1,769	66.9	2,080	78.6	2,196	83.0
cs	2,138	100.0	2,539	118.8	2,317	108.4	1,852	86.6	1,754	82.0	2,082	97.4	2,276	106.5
	4,278	100.0	4,672	109.2	3,927	91.8	2,798	65.4	2,309	54.0	2,856	66.8	3,110	72.7
	6,920	100.0	6,910	99.9	5,378	77.7	4,015	58.0	3,731	53.9	4,417	63.8	4,523	65.4
	1,987	100.0	1,997	100.5	1,517	76.6	1,049	52.8	906	45.6	1,104	55.6	1,145	55.6
	3,949	100.0	3,845	97.4	3,553	90.0	3,133	79.3	3,386	85.7	3,734	94.6	3,808	96.4
	3,601	100.0	3,667	101.8	2,987	83.0	2,249	62.5	2,004	55.7	2,336	64.9	2,404	66.8
	1,279	100.0	1,343	105.0	1,091	85.3	795	62.2	693	54.2	827	64.7	870	68.0
	11,280	100.0	13,300	117.9	13,010	115.3	11,215	99.4	11,045	97.9	12,222	108.4	13,051	115.7
11	6,533	100.0	7,009	107.3	5,719	87.5	4,408	67.5	4,279	65.5	5,086	77.9	5,354	82.0
on	2,057	100.0	2,116	102.9	1,882	91.5	1,619	78.7	1,686	82.0	1,988	96.7	2,102	102.2
	2,342	100.0	2,661	113.6	2,308	98.5	1,814	77.5	1,747	74.6	2,128	90.9	2,352	100.4
e	1,909	100.0	1,944	101.8	1,577	82.6	1,143	59.9	1,041	54.5	1,238	64.9	1,271	66.6
	5,105	100.0	5,346	104.7	4,324	84.7	3,186	62.4	2,925	57.3	3,424	67.1	3,526	69.1
	1,579	100.0	1,681	106.5	1,308	82.8	994	63.0	940	59.5	1,130	71.6	1,207	76.4
	65,426	100.0	66,761	102.0	58,201	89.0	48,323	73.9	46,307	70.8	49,793	76.1	49,502	75.7
	791	100.0	887	112.1	775	98.0	523	66.1	405	51.2	488	61.7	534	67.5
	2,793	100.0	3,057	109.5	2,559	91.6	1,868	66.9	1,551	55.5	1,847	66.1	1,952	69.9

COUNTY	1970 NUMBER	%	1975 NUMBER	% of 1970	1980 NUMBER	% of 1970	1985 NUMBER	% of 1970	1990 NUMBER	% of 1970	1995 NUMBER	% of 1970	2000 NUMBER	% of 1970
Renville	3,019	100.0	3,298	109.2	2,617	86.7	1,869	61.9	1,583	52.4	1,916	63.5	2,024	67.0
Rice	6,873	100.0	6,912	100.6	6,479	94.3	5,748	83.6	6,173	89.8	6,793	98.8	6,977	101.5
Rock	1,692	100.0	1,723	101.8	1,379	81.5	1,059	62.6	991	58.6	1,160	68.6	1,200	70.9
Roseau	1,652	100.0	1,906	115.4	1,634	98.9	1,215	73.5	1,072	64.9	1,289	78.0	1,392	84.3
St. Louis*	32,472	100.0	32,178	99.1	25,832	79.6	20,033	61.7	19,323	59.5	21,564	66.4	21,696	66.8
Scott	4,771	100.0	6,284	131.7	6,079	127.4	4,816	100.9	4,449	93.3	5,428	113.8	6,216	130.3
Sherburne	2,584	100.0	3,439	133.1	3,639	140.8	3,471	134.3	3,765	145.7	4,601	178.1	5,325	206.1
Sibley	2,221	100.0	2,530	113.9	2,055	92.5	1,508	67.9	1,398	62.9	1,663	74.9	1,789	80.5
Stearns	16,671	100.0	17,203	103.2	16,084	96.5	13,242	79.4	13,436	80.6	15,696	94.2	16,499	99.0
Steele	3,899	100.0	4,414	113.2	3,807	97.6	3,004	77.0	2,867	73.5	3,339	85.6	3,519	90.3
Stevens	2,021	100.0	1,772	87.7	1,423	70.4	1,155	57.1	1,195	59.1	1,348	66.7	1,318	65.2
Swift	1,890	100.0	1,985	105.0	1,607	85.0	1,175	62.2	954	50.5	1,150	60.8	1,214	64.2
Todd	3,267	100.0	3,609	110.5	2,989	91.5	2,167	66.3	1,909	58.4	2,325	71.2	2,502	76.6
Traverse	916	100.0	974	106.3	746	81.4	501	54.7	442	48.3	457	59.7	576	62.9
Wabasha	2,388	100.0	2,732	114.4	2,335	97.8	1,717	71.9	1,514	63.4	1,814	76.0	1,947	81.5
Wadena	1,854	100.0	2,046	110.4	1,668	90.0	1,162	62.9	1,022	55.1	1,260	68.0	1,354	73.0
Waseca	2,329	100.0	2,570	110.3	2,228	95.7	1,771	76.0	1,635	70.2	1,909	82.0	2,029	87.1
Washington	12,290	100.0	17,042	138.7	16,589	135.0	12,832	104.4	12,210	99.3	15,050	122.5	17,567	142.9
Watonwan	1,938	100.0	1,994	102.9	1,535	79.2	1,155	59.6	1,070	55.2	1,239	63.9	1,253	64.7
Wilkin	1,477	100.0	1,507	102.0	1,197	81.0	842	57.0	746	50.5	883	59.8	900	60.9
Winona	6,894	100.0	6,484	94.1	6,014	87.2	5,247	76.1	5,522	80.1	6,024	87.4	6,016	87.3
Wright	5,587	100.0	7,268	130.1	7,464	133.6	6,727	120.4	7,048	126.1	8,256	147.8	9,590	171.6
Yellow Medicine	2,178	100.0	2,234	102.6	1,704	78.2	1,189	54.6	1,107	50.8	1,360	62.4	1,438	66.0
TOTAL	546,234	100.0	590,418	108.1	523,994	95.9	429,542	78.6	421,402	77.1	477,134	87.3	500,434	91.6

*NOTE: Not based on Alternative St. Louis County Projection.

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Gain 9% or more;
three or more
times the state
rate.

State=2.9%

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1985 PROJECTED SCHOOL AGE POPULATION
AS A PERCENT OF 1970, BY COUNTY

Percent of 1970

16 ☐ 50 to 59
24 ☐ 60 to 64
18 ☐ 65 to 74
14 ☐ 75 to 84
15 ■ 85 to 129

State: 77.8%

81

6.
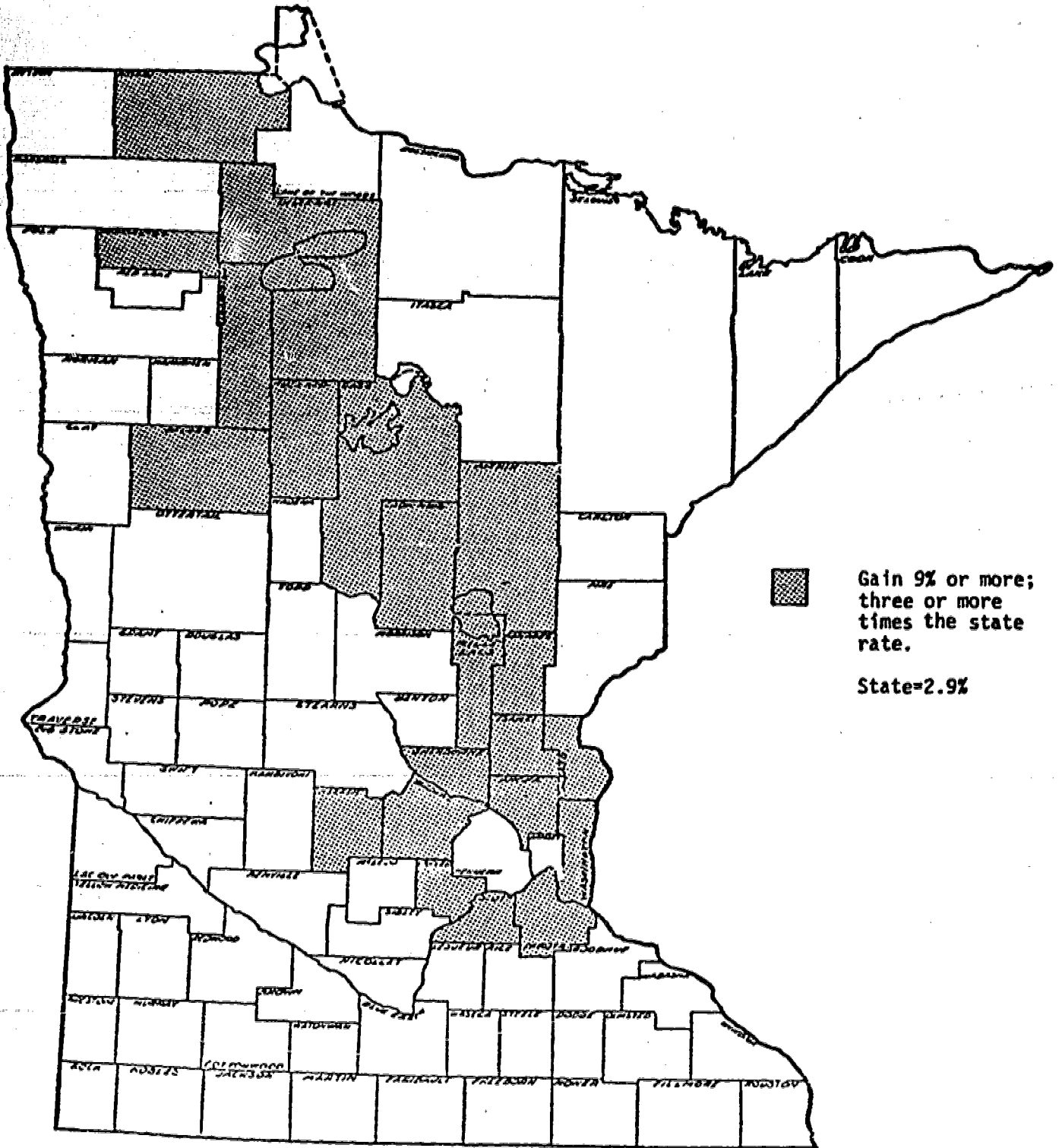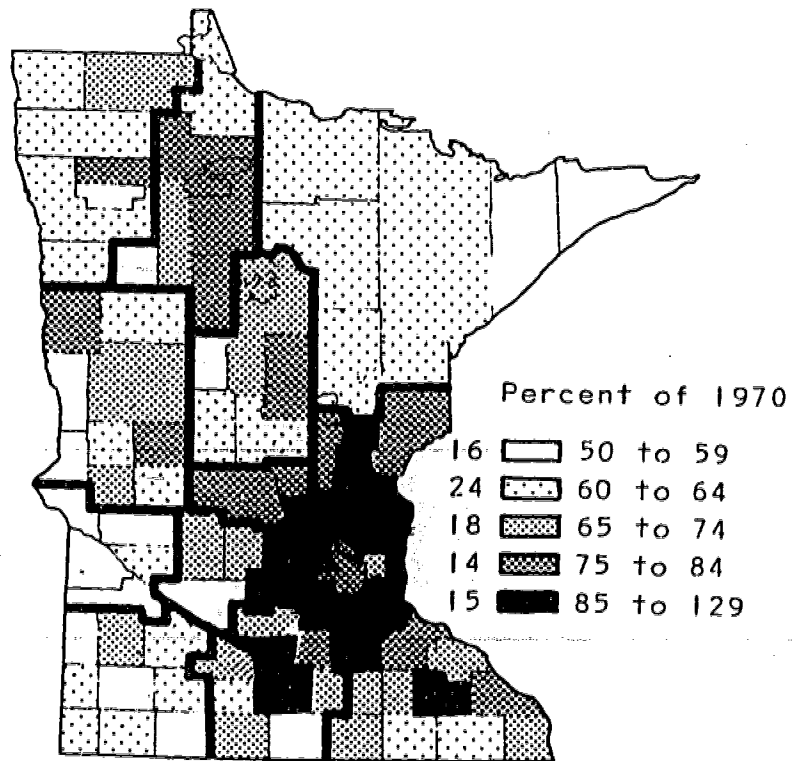
AN OVERVIEW OF MINNESOTA'S
ELEMENTARY AND SECONDARY
EDUCATIONAL SYSTEM

A.   Definition of the Educational System

Education is a process through which students may grow and
develop to become resourceful, productive citizens in a democratic
society. In Minnesota, this process of educating students
occurs under the auspices of the State Legislature, the State
Board of Education, the State Department of Education, interme-
diate units, local school boards, and professional educators.

The primary delivery system for education in Minnesota is
within 435 school districts which are experiencing a pheno-
menon referred to as fluctuating enrollments. This fluctua-
tion in enrollments is not unique to Minnesota, since it
appears to be occurring nationwide.

For purposes of this overview, the 435 school districts in
Minnesota shall be referred to as the Educational System.
The fluctuation of enrollments within this Educational System
and the complex interactions of the system with its external
environment will set forth a framework for understanding the
status of education in Minnesota.

Minnesota's Educational System is increasingly complex due
to the past rapid growth in the number of students entering the
system. This can be recognized in the diverse sizes of the school
districts, the organizational structures of the school districts,
and the increasing specialization of functions within the school
districts. This system becomes more complex as one considers the
external demands and supports for educational delivery systems
which are cost-effective and of high quality.

Education does not function in a vacuum. It is dynamic
and interacts continuously with its internal and external
environment. Understanding this interaction has been the
primary concern of educators, legislators, and the public at
large; comprehending the intricacies of this dynamic system is
difficult.

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Minnesota's Educational System appears to be going through a critical period which may be considered a "fiscal crisis" affecting the quality and comprehensiveness of the educational process. The question often asked by legislators, taxpayers, and educators is "What factors in the Educational System need to be addressed and studied so this apparent crisis may be understood and thus resolved?"

One demographic factor, school enrollments, is currently under study by this Council. School enrollments are an integral part of the Educational System and, therefore, have extensive influence within the System. Currently, enrollments are in a state of fluctuation characterized primarily by decline. The adaptation to decline requires a new way of thinking and management as illustrated in the following statements by the economist Kenneth E. Boulding in M. Rodekohr, Adjustments of Colorado districts to declining enrollments. Lincoln, Nebraska, University of Nebraska, 1974.

America, and indeed most of world society, has enjoyed growth in many different forms for a period far beyond living memory, stretching back indeed for some hundreds of years. In the last 100 or 200 years growth in almost all major respects has been quite rapid. . . .

Growth, however, cannot go on forever. There is now widespread recognition that we may be in for a period of general slowdown, certainly in population growth and quite probably in per capita real income as energy and materials [sic] sources become more scarce and more expensive, and as potentials for technological change begin to exhaust themselves. . . .

A period of slowdown, therefore, may create severe problems simply because all our learning processes have taught us to adapt to growth and we have had very little opportunity to experience no-growth or even slow growth and still less opportunity to experience decline. . . .

Adaptation to decline, therefore, is going to be a very important skill in the years ahead. If we are only adapted to growth, then we are likely to make a tragic mess of decline. There is a strong case to be made for the argument that decline requires greater skill, better judgment, a stronger sense of community, and a higher order of leadership than growth does. It is easy to adjust to growth. If you make mistakes, time will generally correct them. If you put too much into one segment of the system, all you have to do is wait a little while and hold back the growth of the overextended section and the other sections will catch up with it. In decline, however, time aggravates mistakes. It makes it much harder to achieve the proper proportions of the system, as it is the achieving of these proper proportions which is one of the major functions of leadership.

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In light of Boulding's distinction between management of growth and the future management of decline, it may be appropriate to bring the enrollment phenomenon into perspective. The Council has found that fluctuating enrollments interact continuously with other factors which are also influencing the System. It is important that these other factors affecting the Educational System be clearly defined and their interaction with enrollments and with each other be described. This may provide a global picture of the "fiscal crisis" and the effects on the quality and comprehensiveness of education. The factors to be addressed are demographic, economic, legal, political, and cultural.

1. DEMOGRAPHIC FACTORS

In cooperation with the State Demographer, the Council has developed two documents on projected population and enrollment trends in Minnesota (See Appendix 3 and 4). The documents address population trends on a statewide basis and enrollment trends on a county basis. The State Demographer has also developed a document entitled "An Analysis of Public School Enrollments in Minnesota, 1970-1974," which was distributed by the Council.

A synopsis of the information in these documents provides the following population and enrollment trends in Minnesota:

- The general population (0 through 85+ years) will continue to increase from 3,804,971 in 1970, to 4,652,816 by 2000 (based on 1.9 births per female).
- The 5 through 18 year old population will decrease from 1,124,605 in 1970, to 969,731 by 2000 (based on 1.9 births per female).
- Enrollment trends by geographic area are related to demographic factors, e.g., those areas experiencing a current or projected severe enrollment decline are characterized by an older age structure and generally skewed to producing minimum growth.
- There are generally four groups of counties which reflect diverse population and enrollment trends which, in turn, may affect the educational conditions in these areas: those with a projected severe enrollment decline which are rural in residence and are not sparsely populated (e.g., Redwood County); those with a projected 30 through 40 percent enrollment decline which are characterized by a large geographic area and are sparsely populated (e.g., Cook County); those with a projected enrollment decline attributed to out-migration which are urban in residence and characterized by out-migration of the general population (e.g., Ramsey and Hennepin Counties); and, those with potential growth in enrollment and the general population for a limited period of time (e.g., Chisago County).

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Understanding the impact of population and enrollment trends on the Educational System can be perplexing. For example, consider the possible implications of the future changes in general population characteristics as they may relate to the Educational System. There may be a divergent distribution of age groups characterized by increasingly greater numbers of adults in the older age groups and fewer adults with school-age children. This may necessitate an increasingly active pursuit of educational and financial support from those citizens no longer receiving direct benefits from education. The quality of citizen participation could become a very crucial and serious element in the Educational System.

The demographic characteristics found in the different geographic areas will also need serious consideration when planning for the future of education in Minnesota. How does one develop policies at the state level which will facilitate the diverse population trends existing in the four previously mentioned groups of counties? To what extent can these policies ensure the flexibility necessary to meet the continuously changing educational needs of these areas? These are complex questions which are being addressed by the Council. It is anticipated that they will be answered at the completion of this study.

2.   ECONOMIC FACTORS

The Educational System's fiscal component is also affected by more general economic developments such as inflation, recession and unemployment, and changes in the general levels of interest rates. At first glance, these might not appear to relate to fluctuating school enrollments. This may be an erroneous assumption. Fluctuating enrollments and economic conditions appear to interact to affect the total costs and per pupil unit costs in such areas as fixed charges, instructional salaries, and supplies.

Given the current revenue limitations of the 1971 Omnibus Tax Law, the management of the Educational System can no longer levy taxes beyond the limit authorized by the state aid formula without approval by the electorate. If expenditures related to economic factors rise dramatically, school districts will need to reallocate existing funds between budget functions to cover these additional costs. This reallocation of revenue might affect the quality or comprehensiveness of the educational program if dollars are taken from the instructional functions to cover increasing noninstructional costs. This reallocation may be reflected in reduced programs, staff and/or facilities.

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Nationally, Minnesota ranks very high in taxation and expenditure levels for education. It might be unreasonable to believe tax rates could be increased further to account for increasing educational costs. This implies the need for a careful analysis of how money is now being expended and how it might be allocated more effectively.

3. LEGAL FACTORS

Legal factors influencing the Educational System include legislative action at the state and federal level, court decisions, and rules and regulations set by the State Board of Education and implemented by the State Department of Education. As with economic factors one might say legal factors do not interact with fluctuating school enrollments to affect the cost, quality, and comprehensiveness of the educational process. This, too, may not be totally correct. All of these actions in interaction with enrollments can affect the cost, quality, and comprehensiveness of education. This will be illustrated in Section IV of this document which describes specific cost, quality, and revenue problems in education. These problem statements consider such legal factors as tenure, bargaining rights, and seniority rights.

4. POLITICAL FACTORS

Education is a constitutional function of the state and, therefore, is very much a part of the political system. The Educational System is influenced through the electoral process, interest groups, and the general political climate. This can be witnessed in such examples as the growing assertiveness of teachers, the perceived tension attributed to the Opening Meeting Law, and the increasing concern for educational accountability. The political demands and supports in the external and the internal environments of the Educational System will have varying effects within individual school districts and on the Educational System as a whole. The more recognition that our society is pluralistic, expressing diverse ethnic, cultural, and social interests places greater demands on the purpose, process and structure of the Educational System. As changes are made in the Educational System to adjust to fluctuating enrollments, the political factors may become a very important influence which must be understood.

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5. CULTURAL FACTORS

Cultural factors are most difficult to understand, project, or define. Cultural factors include the norms, values, beliefs, perceptions, motivations, habits, and expectations of our pluralistic society. Since organizations are created to serve particular needs of our society, cultural factors become increasingly important to the functioning of the Educational System.

It might be accurate that this factor has, historically, had a positive effect on the Educational System. The long standing support of education in Minnesota via increased tax dollars and public interest in quality education has promoted the national recognition of Minnesota for its support of education.

It is difficult to predict how future cultural interests will influence change in education. The anticipation of an older age group distribution with fewer parents directly involved in the educational process could have a devastating or enlightening influence on the new demands and supports affecting the system.

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7.

EFFECTS OF FLUCTUATING
ENROLLMENTS

A.   Effects on Cost

1.   GENERAL PROBLEM STATE   NT

Total educational costs are increasing. This does not
appear to be unique to only those school districts exhibiting
growth in enrollments. School districts with stable and
declining enrollments also appear to be experiencing increased
costs.

To facilitate one's understanding of costs, the concepts of
total cost and per pupil unit cost need to be defined. Total
costs refer to all expenditures. Per pupil unit cost refers to
total expenditures divided by the total number of pupil units in
average daily membership (ADM).

Assuming a stable economy, the total costs in a growing
school district will increase, while per pupil unit costs tend
to increase less rapidly. The total costs in a declining school
district may decrease while the per pupil unit costs probably
will increase more rapidly than stable or fast growth districts.

The increase in costs by type of school district can be
attributed to other factors interacting with the fluctuating
school enrollments. These factors have been defined in Section
III A1-5 as demographic, legal, political, and cultural.

Fluctuating school enrollments are a reality in almost
every school district in Minnesota. A school district's total
enrollment may be declining, remaining stable, or showing
growth. However, a breakdown of the total enrollment into
grades or levels reveals the fluctuation. For example, secondary
enrollments may be increasing while elementary enrollments are
declining. Differences in the decline by grade or level may be
attributed to out   migration or reduced birth rates. Since out-

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migration may tend to reduce enrollment across grades, the decline may not be consistent by grades or level. Decline due to the reduced birth rate may be more consistent by grade.

Another element of demographic factors affecting the cost of educational programs is the socioeconomic distribution of the population. This is most readily found in the urban school districts. With the increased out-migration and the decrease in birth rates, there may be a shift in the socioeconomic structure of the community. If this results in a disproportionate increase in the number of students from the lower socioeconomic structure, the demands and needs for increased compensatory and special programs may increase. This could place additional financial burdens on the district which must be absorbed in the current budget. The effects of this burden on general education costs may reduce the comprehensiveness of education in that district.

Economic factors, such as inflation, seem to have significant effects on the financial aspect of education. This will be reflected in the budget by increases in the total cost per pupil unit costs. In a declining enrollment district the per pupil unit costs will increase more rapidly than in a district exhibiting stable or growing enrollments. For declining districts these per pupil unit costs will continue to increase until an optimal decline requires the closing of facilities and, perhaps, the reduction of staff. Inflationary costs will also be reflected in salaries, fringe benefits, instructional supplies and equipment, and the general maintenance and operation of the plant.

Legal factors, represented by legislative action at the state and federal levels, court decisions, and rules and regulations set by the State Department of Education may contribute to the increase of total cost and/or per pupil unit costs. For example, Minnesota Statute 125.12, Subd. 6a, *Negotiated Unrequested Leave of Absence*, and Subd. 6b, *Unrequested Leave of Absence*, provide a legal basis for the institution of a seniority clause in all school districts except Cities of the First Class. School districts have the option of negotiating their own policy or abiding by the provision in Subd. 6b. While this statute may have both positive and negative attributes for labor in the Educational System, it may also demonstrate a negative effect by increasing educational costs. This increase in cost (total and/or per pupil unit cost) may occur where there is an increasingly unequal distribution of professional staff on the higher steps of the salary schedule. As enrollments decline, resulting staff reductions may cause an increase in the number of teachers with higher educational training and experience which will be reflected in the growing number of teachers on the higher levels of the salary schedule. This increase will also affect the total and per pupil unit costs.

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Court decisions, and the State Board of Education's rules
and regulations on legal issues (i.e., desegration/integration,
the effects of inflation and declining enrollments) place a
financial burden on school districts, especially urban districts.
The costs related to instituting new programs to achieve
desegration/integration plus the effects of inflation become an
educational overburden. Declining enrollments attributed to
out-migration and the decreasing birth rate may result in an
increasing proportion of lower socioeconomic students. This
causes an increase in educational costs if there is additional
need for compensatory and special educational services.

Rules and regulations set by the State Board of Educa-
tion and the State Department of Education, to implement
legislation (i.e., equalizing athletic programs, human rela-
tions, special education programs and due process) are promulgated
to benefit the educational process. However, they could also
have an adverse cost effect. These rules may require redistri-
bution of funds or additional funds. School districts operating
within budgetary limitations are often forced to choose between
the expansion of existing programs and the institution of new
programs.

Finally, one should consider the time involved in complying
with these legal factors in light of greater demands for accounta-
bility. Compliance takes time which consumes dollars otherwise
spent in the internal management of the educational program.
The extent to which compliance is done in the form of written
documents, financial reports, and written justification for
requested funding may require additional administrative staff or
extended time allotted instructional personnel.

The interactio: of political and cultural factors shape
the demands, concerns, and supports placed on the Educational
System. An anticipated older age group structure and its
particular interests may limit the possibility of passing
educational referenda in the future. An older citizenry might
influence an increase in the demand for educational cost efficiency
or a reduction in the financial and educational support for
the Educational System. The implications of future cultural
interests will be increasingly expressed in the political
process. This may require new and different governance skills
in the Educational System.

The problems discussed in the following specific problem
statements are interdependent but discussed separately to
distinguish their uniqueness. These problems are not presented
in order of priority for the Council's study or in order of
relative costs. For example, based on 1974-75 financial data
expenditures, the average expenditures per pupil unit for
administration was $35, the average expenditures per pupil unit

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for instructional salaries was $585, the average expenditures per pupil unit for capital outlay was $112, and the average expenditures per pupil unit for transportation was $55. (See Special report: School district profiles show sharp contrasts, UPDATE, 1975, 9(3), 1.)

2. SPECIFIC PROBLEM STATEMENTS--PERSONNEL

a. *Administration (Certificated Administrative Staff)*.
Administration costs may be affected by fluctuating enrollments as well as economic and legal factors. These costs appear to have a positive relationship to growing enrollments. For example, total administrative costs may increase, yet the per pupil unit cost may increase less rapidly or decrease. If a school district increases its administrative staff, total cost will increase, while the per pupil unit cost may increase slightly, remain stable, or decrease. This relationship will depend on the amount of enrollment growth and the number of new administrative personnel employed.

Total cost and per pupil unit cost in administration appear to have an inverse relationship with declining enrollments (e.g., enrollment needs to decline significantly in order to realize reduction in administration). Until this significant enrollment decline is realized, total administration costs may increase due to inflationary factors and salary increases, while the per pupil unit cost may accelerate due to decline in enrollments. The level of the decline, whether elementary or secondary, may also be a contributing factor in the reduction of additional administrative personnel. The size of the district and administrative unit interacting with the enrollment trends may influence the reduction or addition of administrative staff. This influence may have positive or negative effects depending on the school district involved. For example, a school district with an enrollment of 650 students may employ only one secondary principal and one elementary principal. An enrollment growth or decline of 100 students across all grades may not accommodate the addition or reduction of administrative staff.

b. *Certificated Instructional Staff*.

(1) *Elementary staff*. The addition or reduction of elementary instructional staff may be proportionate to the enrollment growth or decline if the growth or decline occurs progressively by grade. Geographic factors and the size of school districts may impede proportionate additions or reductions of staff which will affect the total cost and per pupil unit cost. In a growing district the total cost for elementary instructional staff may increase, while the per pupil unit cost may increase or decrease. In a declining district the total cost may increase less rapidly than the growing district or decrease. The per pupil unit cost for declining districts will accelerate faster than in stable or growing enrollment districts.

The reduction or addition of elementary instructional
staff may not be proportionate to enrollment growth or
decline which occurs across grades rather than by grades.
Out-migration or in-migration may influence this type of
decline or growth. This disproportionate reduction or
addition of staff may be particularly true for school
districts which utilize the traditional classroom unit for
instruction rather than ungraded instructional units. In a
growing district the total cost may remain stable or
increase while the per pupil unit cost may decrease or
increase. This will be dependent on the number of students
involved in the growth and the number of additional staff
hired. In a declining district the total cost may remain
stable or decrease, while the per pupil unit cost may
increase.

In addition to the effects of enrollment trends on the
total cost and per pupil unit cost, economic factors (e.g.,
salary increases) and legal factors (e.g., seniority staff
reduction plans) may affect the total cost and per pupil
unit costs. These factors may cause an increase in the
total cost for elementary instructional staff in growing
districts, while the per pupil unit cost may decrease or
increase. In declining districts the total cost may
increase less rapidly than growing districts, while the per
pupil cost may increase significantly.

These phenomena could create difficult decisions when
adjustments must be made in the expenditure patterns of a
school district operating with budgetary limitations.
These decisions become increasingly difficult as enrollments
tend to decline.

(2) *Secondary staff.* The addition or reduction of secondary
instructional staff may not always be proportionate to the
enrollment growth or decline. At this level, enrollment
by course offerings becomes the determining factor in
reducing or adding staff. For example, if the growth or
decline occurs across course offerings, it may not be
possible to increase or reduce staff proportionately
without increasing or decreasing the number of courses
offered. As a result, the total cost for a growing district
may remain stable or increase, while the per pupil unit
cost increase or decrease. This will be dependent on the
number of staff added and the increase in enrollment. For
a declining district the total cost may remain stable or
decrease, while the per pupil unit cost increases or remains
stable. Again, this will be dependent of the number of
staff involved in the reduction process and the decrease in
enrollment.

Further implications for total cost and per pupil unit
cost may result from the effects of economic factors (e.g.,
salaries) and legal factors (e.g., seniority staff reduc-
tion plans and certification requirements). Incremental
salary increases plus an increase in the training and

experience of the secondary staff will interact with the cost effects of enrollment trends. These factors may cause an increase in both the total cost and per pupil unit cost regardless of the enrollment trend. Certification requirements (i.e., vocational education) may restrict the reduction of staff and the use of alternative staffing patterns. This may cause an increase in total cost for a growing district where a staff member must be added based on certification requirements. Per pupil unit cost may increase or decrease. For a declining district the total cost may increase while the per pupil unit cost accelerates with the decline.

All of these phenomena complicate the decision-making process, especially when a district has to readjust expenditure patterns under budgetary limitations.

(3) *Other instructional staff.* Educational program factors, student characteristics and mandated programs influence the extensiveness of the supportive staff in this category. One cannot assume a direct relationship between fluctuating enrollments and other instructional staff without considering interaction with the educational program and the pupil characteristics stated above. For example, a school district may employ a counselor who serves 400 students. A growth or decline of 50 students may not dictate the addition to or reduction of counseling staff. In a growing district this may not affect the total cost, but the per pupil unit cost will decrease. In a declining district the total cost may remain stable, while the per pupil unit cost will increase. This same phenomenon may be true for librarians, educational consultants, and special services staff.

Increasing salaries due to wage and benefit settlements plus increased training and experience of staff will affect the total cost and per pupil unit cost. This effect may be reflected in increased total cost regardless of the enrollment trends. The effects on the per pupil unit cost may increase or decrease depending upon the enrollment trend and subsequent addition or reduction of staff.

Increasing total cost and/or per pupil unit cost plus an increasing public demand to "return to the basics" may influence the decisions in growing school districts to not add more support staff or influence declining districts to make hasty decisions in reducing support staff. These decisions may appear to have positive cost effects but may result in adverse effects on the quality of education.

c. *Noncertificated Staff.* Here too, as with the other personnel categories, the addition or reduction of noncertificated staff may not be proportionate to the enrollment growth or decline

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thus affecting the total cost and per pupil cost for this area.
Economic factors such as wage, fringe benefits and conditions of
employment contracts also interact with enrollment trends to
effect the total cost and per pupil unit cost in this area.
While districts may slightly increase or decrease personnel in
this area, significant changes may not occur unless new facilities
are added or unutilized or underutilized facilities are closed.

3.   SPECIFIC PROBLEM STATEMENT--FACILITIES

For the most part, changes in the fixed costs for the
maintenance/operation of the plant may be more related to
economic factors such as inflation than to enrollment trends.
However, a growth or decline in enrollment which would require
either the building of new facilities or the closing of unutilized
or underutilized facilities could increase or decrease total
cost respectively. Declining enrollments may have a short-term
positive effect if alternative educational delivery systems are
provided which utilize the excess space; however, the per pupil
unit cost will increase. Growing enrollments may place a short-
or long-term educational burden on school districts due to lack
of space and/or overcrowding; however, the per pupil unit cost
may decrease.

Management decisions on the closing of facilities may
have a positive effect on costs for the maintenance/ operation
of facilities but may have a negative effect on the educational
program. For growth districts the passage of a building
referendum may have negative effects in the budget by increasing
other related costs such as instructional supplies and equipment,
maintenance supplies and equipment, and additional professional
and noncertificated staff, but may have a positive effect on the
educational program by providing needed space.

4.   SPECIFIC PROBLEM STATEMENTS--TRANSPORTATION

a.   _Student Transportation._ Transportation costs tend to
interact with demographic, economic, and legal factors as well
as fluctuating enrollments. Where the population density is
increasing and enrollments are increasing, the total cost of
transportation may increase or remain stable while the per pupil
unit cost may decrease. However, when the population density is
decreasing and enrollments are decreasing, the total cost may
remain stable while per pupil unit cost may increase. Changes
in transpe tation, fixed charges, travel time, and mileage may
have varying effects on the total cost and per pupil cost of
transportation. This will depend on the size of the district,
population density, and enrollment trend.

b.   *Personnel Travel.* Total cost for the reimbursement of personnel travel expenses may increase as the amount of reimbursement per mile increases or as the mileage traveled per staff member increases. A district with declining enrollments may reduce the number of itinerant staff, but the result may increase travel for remaining itinerant personnel. This may be true for those dist. cts desiring to maintain or to continue the educational programs associated with these itinerant personnel. Total cost for personnel travel may increase or decrease depending upon how districts utilize itinerant staff. Declining or growing enrollments may, respectively, increase or decrease the per pupil unit cost.

If distri...s share itinerant staff, there may be a decrease in the per pupil unit cost; but, there may be an increase in total cost due to the amount of travel involved. Hidden costs, such as time spent traveling between districts, may not be directly reflected in the budget and, therefore, difficult to measure.

5.   SPECIFIC PROBLEM STATEMENTS--EDUCATIONAL PROGRAM

a.   *Curricular Programs.* Total cost and per pupil unit cost in the curricular program will vary with enrollment trends as well as with cultural, economic, and legal factors. In a growing district the per pupil unit cost may decrease as students are absorbed in existing programs, grade levels and/or courses. When instructional staff are added to expand programs, grade levels and/or courses, the per pupil unit cost nay increase.

In a declining district per pupil unit cost has an inverse relationship with enrollment until the decline requires a reduction in program and staff. This relationship is dissimilar in the elementary and secondary levels. For example, reduction in the elementary program can be more readily achieved as the enrollments decline by grade rather than across grades. At the secondary level, reduction in the curricular program is more difficult as program offerings and staff allocations are, for the most part, provided across grades rather than by grades. Management decisions on reduction of educational programs may be more difficult with the lack of clarity and/or consistency at the state and local levels as to what should be included in a minimal educational program.

b.   *Student Activity Programs.* Per pupil unit costs in student activity programs are affected by enrollment, economic, and legal factors. Equalization of athletic programs, salaries, and staff along with increased costs of supplies and equipment strongly affect this area regardless of fluctuating enrollments. Direct effects of fluctuating enrollments on the total cost and per pupil unit cost will vary by district and the extent of student activity programs. One night expect that a significant growth or decline in enrollment must be realized before an increase or decrease in total cost occur. Per pupil unit cost

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