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Supplementary Income Activities Among Minnesota Public School Teachers

Janet L. Pladson

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SUPPLEMENTARY INCOME ACTIVITIES AMONG MINNESOTA
PUBLIC SCHOOL TEACHERS

by
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Bachelor of Science, Moorhead State College, 1974
Master of Education, University of North Dakota, 1982

A Dissertation
Submitted to the Graduate Faculty
of the
University of North Dakota
in partial fulfillment of the requirements
for the degree of
Doctor of Education

Grand Forks, North Dakota

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1986

This Dissertation submitted by Janet L. Pladson in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota has been read by the Faculty Advisory Committee under whom the work has been done, and is hereby approved.

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This Dissertation meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

A. William Johnson 7/22/86
Dean of the Graduate School

Permission

Supplementary Income Activities among Minnesota Public School
Title Teachers

Department Educational Administration

Degree Doctor of Education

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Janet L. Pleason

Date

July 15, 1986

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ABSTRACT

The Problem

This study was designed to develop profiles of Minnesota teachers who did and did not engage in supplementary income activities, profiles of teachers engaged in one, two, or three or more supplementary income activities, and to compare the differences. The study also investigated the perceived need to engage in supplementary income activities, the perceived reasons for being engaged in supplementary income activities, and the perceived impact of being engaged in supplementary income activities.

Procedure

A three percent (3%) sample of Minnesota teachers participated in a survey designed to collect information about the supplementary income activities of teachers. Resulting data were statistically tested for significant differences at the .05 level.

Results

Two-thirds of the respondents were engaged in supplementary income activities of which a majority (74 percent) engaged in professional income activities. They engaged for the following reasons: improve living standard, pay monthly bills, and personal stimulation. The perceived impact of being engaged in supplementary income activities was that teaching performance, teaching preparation, and inservice seminars/workshops were not affected; whereas reading and private study,

graduate study, and family and social life were perceived to be hindered. A significant relationship was found between the number of hours/week invested in evening and/or weekend job(s) and the effects of being engaged. The more hours invested, the more likely teaching preparation, physical well-being, and family and social life were hindered. Also, there was not a significant relationship between the professional development activities of teachers and being engaged in supplementary income activities and minimal significance between the professional development activities and being engaged in one, two, or three or more activities.

Conclusions

The statistical treatment and analysis of the data used in this study resulted in two major conclusions. First, a majority of the respondents perceived the need to be engaged in supplementary income activities for financial reasons. Second, the perceived negative effects of being engaged in supplementary income activities were the greatest in the area of evening and/or weekend job(s).

CHAPTER I

BACKGROUND FOR THE STUDY

It is a generally accepted belief that the children of America are our nation's greatest national resource. The future of our country lies in the hands of these children. The responsibility of today's educators to prepare the children for leadership roles is an awesome one. Thus, the welfare of the teachers in the United States ought also to be a matter of national concern.

The profession of teaching is unique because of this important role and its impact on society. It is also unique because of its "part-time" nature. Public school teachers are typically contracted to be in their classrooms only nine or nine and one-half months per year. A few teachers, usually those with administrative duties or those involved in curriculum development, have extended contracts which run from a few additional days to several weeks. This part-time nature of teachers' employment may communicate to the general public that teachers only work nine months of the year and their salaries need not be extended even though the educational responsibilities the profession demands require a much greater investment of time and energy. Thus, there appears to be a gap in the altruistic societal expectations of teachers and the reality of those expectations. This gap translates into misinformation regarding the role and subsequent demands of

today's teachers and, more specifically, the financial remuneration for carrying out the expectations of the job. Teachers find themselves in positions which have high societal expectations in educating the nation's children; but when comparing these expectations in the responsibilities and demands of the profession, the financial reward seems inadequate.

Often the financial remuneration for teaching is insufficient to meet the needs of the teachers to provide a minimally adequate standard of living. Teachers in this circumstance must then resort to additional income-generating activities to supplement their teaching salaries. Thus, many teachers are multiple jobholders which, in turn, reinforces the public notion that teaching is only a part-time job.

Need for the Study

The role, responsibilities, and competence of teachers as well as the status of the profession have been and continue to be currently under investigation. The flurry of reports during the late 1970s and early to mid 1980s discussing quality of education in America has raised serious questions about the quality of schooling.

It is no secret that some people potentially considering teaching as a career have instead chosen higher-paying professions; some people currently teaching are considering leaving the profession due to low salaries; and many teachers feel they must engage in supplementary activities to increase the income they receive from teaching. All of these factors in some way seem likely to affect teacher morale, motivation, perceptions of the profession, and the quality of teachers and teaching.

The Bureau of Labor Statistics estimates that one of every twenty employed workers held two or more jobs in May 1978. This means that 4.5 million workers (4.8%) in the labor force were multiple jobholders or "moonlighting." However, the proportion of workers holding two or more jobs exceeded 8 percent for those who were in the field of education, the post office, and state and local governments. The highest proportion with second jobs (20%) was among male elementary and secondary teachers (Rosenfeld 1979, p. 59).

A National Education Association (NEA) report (Toch 1982) stated that approximately half of all teachers surveyed worked at other jobs to supplement their teaching income. It was reported that an average of \$2,462 was earned in extra income from these activities.

Thus, the phenomena of "moonlighting" apparently pervades the profession of teaching and the ramifications bear investigation. The additional energy and time required by these supplementary activities may usurp the commitment, time, energy, and preparation required of the professional teacher. The findings of this study should reveal important information about teachers' salaries, extent of moonlighting, attitudes toward moonlighting, and the impact of these activities on quality education.

Purposes of the Study

The purposes of the study are:

1. To develop a personal and professional characteristics profile of the teacher in Minnesota who does not engage in supplementary income activities, the teacher who does engage in supplementary income activities, and to compare the differences.

2. To develop personal and professional characteristics profiles of the teachers in Minnesota who engage in one, two, or three or more supplementary income activities and to compare the differences.

3. To investigate the perceived need among teachers in Minnesota to engage in supplementary income activities.

4. To identify what Minnesota teachers perceive to be the reasons for engaging in supplementary income activities.

5. To examine what Minnesota teachers perceive to be the impact of engaging in supplementary income activities on teachers and teaching.

Delimitations

The study was delimited to the following:

1. The study was limited to a random sample of Minnesota public school teachers.

2. Supplementary employment was investigated only for the period August 15, 1983, to August 14, 1984.

3. The validity of the study was limited to the extent that the respondents gave complete and accurate responses to the questions.

4. The instrument was tested only for content and face validity.

Assumptions

The study was based upon the following assumptions:

1. The random sample provided by the State Department of Education accurately reflected the teacher population in Minnesota.

2. The instrument designed to collect data about the personal and professional characteristics of teachers engaged and not engaged in

supplementary income activities, to identify the perceived reasons for teacher moonlighting, and the perceived impact of moonlighting on teachers and teaching provided valid, reliable, accurate, and appropriate data.

3. The teachers completing the questionnaire were not atypical.

Definitions

Some terms appearing in this study were used with a specific meaning. The terms and their meanings follow:

Moonlighting. The holding of a job in addition to full-time employment as a teacher. This definition includes school duties such as coaching, curriculum development activities, and music; a job or jobs held during the summer; or being self-employed or engaged in the family businesses.

Multiple jobholder. An individual who holds two or more jobs simultaneously.

Primary job. The job from which one receives his/her major source of income.

Professional development activities. Activities in which a teacher engages that promote professional growth and development.

Regular employment. Full-time employment as a teacher.

Supplementary income activities. Any endeavor by an individual to increase his/her income beyond that received from teaching.

School year. The period of operation set by the administration during which the required number of school days is set.

Summer employment. Employment during months not covered by the contract for teaching.

Research Questions

The following research questions were investigated through the study:

1. What is the profile (personal and professional characteristics) of the teacher who is engaged in supplementary income activities; of the teacher who is not engaged in supplementary income activities; and what are the differences between the two?

2. What is the profile (personal and professional characteristics) of the teacher who is engaged in one supplementary income activity; of the teacher who is engaged in two supplementary income activities; and of the teacher who is engaged in three or more supplementary income activities; and what are the differences among the three?

3. What is the proportion of teachers in the sample that engage in supplementary income activities?

4. What is the mean amount of time spent engaging in supplementary income activities among teachers in the sample who do engage in such activities?

5. What are the sources of other professional education income in excess of salary and the mean dollar amount from these income sources among teachers in the sample engaged in supplementary income activities?

6. What are the sources of other income (rents, royalties, dividends, etc.) and the mean dollar amount from these income sources

among teachers in the sample engaged in supplementary income activities?

7. What are the mean dollar amounts from the sources of supplementary income activities?

8. What are the differences in professional development activities between teachers in the sample engaged in supplementary income activities and teachers in the sample not engaged in supplementary income activities?

9. What are the differences in professional development activities between teachers in the sample engaged in one supplementary income activity, teachers in the sample engaged in two supplementary income activities, and teachers in the sample engaged in three supplementary income activities?

10. What are the perceived reasons for participating in supplementary income activities among teachers in the sample engaged in these activities?

11. What are the perceived reasons for participating in supplementary income activities among teachers in the sample engaged in one, two, or three or more supplementary income activities?

12. What do teachers in the sample perceive to be the effects of engaging in supplementary income activities on the quality of teachers and teaching?

13. What are the attitudes toward supplementary income activities among teachers in the sample engaging in these activities?

The following null hypotheses were developed to examine the data generated by the research questions:

1. There are no significant differences between the profile of the teacher who does not engage in supplementary income activities and the profile of the teacher who does engage in supplementary income activities.

2. There are no significant differences between the profiles of the teachers who engage in one, two, or three or more supplementary income activities.

3. There is no significant relationship between the number of years teachers plan to continue in teaching and the amount of time spent engaging in supplementary income activities.

4. There are no significant differences in professional development activities between teachers not engaged in supplementary income activities and teachers engaged in supplementary income activities.

5. There are no significant differences in professional development activities between teachers engaged in one supplementary income activity, teachers engaged in two supplementary income activities, and teachers engaged in three or more supplementary income activities.

6. There is no significant relationship between the position of the teacher and the professional development activities in which the teacher engaged.

7. There is no significant relationship between the age of the teacher and the professional development activities in which the teacher engaged.

8. There is no significant relationship between the perceived effects of engaging in supplementary income activities on the

perceived quality of teachers and teaching and the number of hours invested in the activity.

9. There is no significant relationship between the attitude toward supplementary income activities and the type of supplementary income activities in which the teacher engaged.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Teachers engaging in supplementary income activities (moonlighting) has historically been a part of the profession of teaching. The review of the literature investigated the historical background of the establishment of teaching as a profession, the part-time nature of teaching, the salaries of teachers, and the relationship of these factors to teachers engaged in supplementary income activities. This chapter also reviewed the extent of teachers engaging in supplementary income activities throughout the years, the reasons for engaging in supplementary income activities, and the perceived impact of engaging in supplementary income activities on the quality of teachers and teaching. The heavy emphasis on the early years of the public schools in America is important for it was during this time that the pattern of teacher employment was established and etched into the attitudes of Americans regarding the way the society would address education. These patterns remain prevalent today.

The Establishment of the Profession

Teaching is commonly regarded as one of the four traditional professions along with law, theology, and medicine. Suzzalo, in A Cyclopedia of Education by Paul Monroe (1919), indicated that though

teaching is regarded as one of the traditional professions, teaching has had trouble developing and maintaining a professional consciousness.

He stated:

Teaching as a vocation has been regarded as one of the four traditional professions. It shares this accepted profession along with the practice of law, theology, and medicine. Owing to the great number of persons employed in public school teaching, the wide territory over which they are scattered, the inadequate preparation of many of them, and the short period of service characteristic of the professional life of the teacher, it has been difficult to develop and maintain a thoroughly well-organized professional consciousness, expressing itself in the recognition of a definite series of professional ideals and an explicit code of professional ethics. (p. 535)

As Suzzalo (Monroe 1919) indicated in the writing during the early 1900s, the inadequate preparation of many, the short period of service, and the great number of people engaged in public school teaching thwarted the efforts to maintain a professional consciousness.

Of the four professions, Stinnett (1962) stated that teaching as a profession was among the newest to emerge. Stinnett indicated that the reason for the late emergence of the profession of teaching was largely due to its intimate connection with the church and the ministry. An example of this connection was that it was traditional for Harvard graduates to teach a year or two and proceed into the ministry. In many settlements there would have been no schools but for the self-sacrifice of the clergy. The example of Rev. John Higginson, in 1646, illustrated the dual role of teacher and clergy. Small (1914) stated: The "teaching elder of the church in Guilford, was also the schoolmaster" (p. 89). Small also stated: "The Reverend Mr. Shepard was pastor and teacher at Lynn for a long series of years" (p. 89).

Later in the colonial period the same conditions persisted, especially in the newer settlements or where new grammar schools were

established. Small (1914) illustrated the relationship between the clergy and teaching with the following example. He wrote:

In Wenham, in 1779, the grammar school was "taught by Rev. Mr. Swain in addition to his pulpit and pastoral labors. For this service, he received in the depreciated currency of the times L 300, which might have been worth \$50." (p. 89)

Thus, teaching until relatively recent times was a function of the ministry. During these times there was no craft organization for teachers as that which existed for physicians and lawyers. Because of these close ties with the ministry, educational technique developed much more slowly than in most other professions. Stinnett (1962) stated:

The ties to the church did not begin to be thrown off until the beginning of the nineteenth century, and still exist to a marked degree. The beginning of the separation of the dual role of ministers and teachers marked the beginning of the ultimate emergence of teaching as a profession. (p. 12)

Another powerful aid to the development of teaching as a profession was the entry of the state into the establishment and support of schools. As Stinnett (1962) indicated:

When the state began to partially or wholly finance schools, it began to set standards, chief among these standards were requirements which teachers had to meet in order to qualify for registration and licensure. This recognition came gradually to be based upon completion of prescribed training in a college or university and sometimes the passing of certain examinations. (p. 13)

Part-time Nature of Teaching

One factor that appeared to have influenced teachers engaging in supplementary income activities (moonlighting) was the perceived part-time nature of teaching. In tracing the length of the school day and school year from the seventeenth century to the twentieth century, the records indicated a variety of patterns. For instance, in the

1600s, school was held for twelve months with very long days. As Small (1914) stated:

Among the earliest detailed set of rules is that of Dorchester in 1645, which states: "That from the beginning of the first month until the end of the seventh, he shall every day begin to teach at 7 of the clock in the morning and dismiss his scholars at 5 in the afternoon; and for the other five months that is, from the beginning of the eighth month until the end of the twelfth month, it shall every day begin at 8 of the clock in the morning and end at 4 of the clock in the afternoon. . . . Every day in the year the usual time for dismissing at noon shall be at 11 and to begin again at 1, except that every second day in the week he shall call his scholars together between 12 and 1 of the clock to examine what they have learned on the Sabbath day preceding, at which time also he shall take notice of any misdemeanors or disorders that any of his scholars shall have committed on the Sabbath," etc. (pp. 378-79)

The late 1700s witnessed the gradual increase in vacations and holidays. An example of this was at Roxbury in 1789. Small (1914) stated:

The school hours required were, on the average, seven and a half per day through the year. . . . As to vacations there were but two in a year, one of six days at commencement time, the other of two at Thanksgiving. The holidays, including those of the public lectures of the First Parish, were in proportion, amounting in all to about five days in addition to Saturday afternoons. (pp. 382-83)

By the end of the eighteenth century vacations and holidays were common.

The nineteenth century experienced a turnaround in the length of the school year. The literature indicated that the number of months school was in session during the school year 1864-1865 ranged from 4.0 months to 7.8 months (Elsbree 1939, p. 211). The following statistics showed the average months school was maintained during 1864-1865.

State	Average Number of Months during Which School Was Maintained, 1864-1865
Massachusetts	7.80
Nevada	7.40
California	7.36
New York	7.36
Illinois	6.50
Ohio	6.28
Vermont	6.00
Pennsylvania	5.80
New Hampshire	5.70
Maine	5.70
Wisconsin	5.50
Indiana	4.30
Kentucky	4.30
Kansas	4.00

California Department of Education, First Biennial Report of Superintendent (1864-1865), p. 41. (Elsbree 1939, p. 211)

Ill. 1. Average number of months school was maintained 1864-1865.

The literature does not address the reasons for this phenomenon; however, a possible explanation of this change in the length of the school year was that with the westward expansion, the shortage of qualified teachers, and the ongoing battle with the elements, school was in session a few short months of the year. It is also likely that children were needed to work to help ensure the economic viability of the family. Also, the vast majority of individuals moving west were people of limited financial means. Many of these were immigrants who spoke a language other than English. All of these factors likely contributed to the difficulty of establishing schools similar to those of the colonial period.

The statistics cited by Elsbree (1939) would substantiate the notion that school teaching in the nineteenth century was a part-time job. Due to being engaged in teaching a few months of the year, teachers had to supplement their incomes. Elsbree stated:

Statistics as to the actual number of days schools were in session are so scarce as to make generalizations unreliable for particular states. Historians are rather unanimous, however, in their conclusion that most teachers were employed in "keeping school" only a few months during the year and that some outside occupation was necessary to enable them to eke out an existence. (p. 209)

Of course city teachers fared better than those in the less populous areas. There was no farm work there to interrupt school attendance and the length of the school year in many of the larger towns corresponded closely to present-day practice. As Elsbree (1939) stated, "The Cincinnati schools in 1839-1840 ran from July 22 to June 19" (p. 211). School teachers in the more populous areas devoted their major energies to their school duties and were looked upon by their fellow citizens as professional workers. However, in the more rural areas, farming and salesmanship consumed a larger proportion of the teacher's time and it was quite natural for the teacher to be publicly regarded as a jack-of-all-trades. Thus, the rural teachers remained part-time employees. This fact accounted largely for the indifference of many of these teachers toward professional improvement and educational reforms. The industrial movement and the growth of cities were powerful factors in improving the teachers' economic and social status and in advancing the cause of public education generally.

The length of the school year had basically stabilized in the twentieth century between nine and ten months. Elsbree (1939) summarized the problem with the perceived notion of the profession of

teaching being part-time. He stated:

Even today, when schools are commonly in session for ten full months, there is an inclination for school boards and lay citizens to view the teacher's task as a relatively easy one, consisting, as it does, of a five-day week with generous vacations scattered throughout the year. The fact that teachers are heavily burdened with homework and their summers frequently spent in professional study is more often overlooked than recognized by those outside of the profession itself. (p. 209)

Teaching Salaries from Colonial
Days until 1841

Another factor that may have contributed to teachers being engaged in supplementary income activities was the perceived low salaries. As previously mentioned, there was a strong alliance between the clergy and teachers, with many times one person filling both positions in many communities.

As the demand for schoolteachers increased, rigorous qualifications and scholastic requirements were not legislated. The tradition of school keeping rather than school teaching was strongly implanted. Butts and Cremin (1953) stated: "In general, good moral character was the principal--often the only--qualification for the post" (p. 286). Another example was in New Hampshire where the law of 1717 required teachers to be able to teach children to read and write, and the law of 1789 added arithmetic (Small 1914). Another example was in Springfield where it was said that in 1800 all the qualifications needed were "the knack to continue in the schoolroom, the discipline of the kitchen and being a good mender of quill pens" (Small 1914, p. 93). Small continued,

Denison Olmsted, in a speech at Yale in 1816, said: "The great defect in our school education . . . is the ignorance and incompetency of schoolmasters. Now it is a notorious

fact that a great part of our public school money is expended on such teachers as this: teachers whose geography scarcely transcends the mountains that bound their horizon; whose science is the multiplication table; and whose language, history and . . . letters are all comprised in the American Perception and Webster's spelling book." (p. 93)

Thus, the perception existed that teaching school was a fairly undemanding job. The nature of life in early America consisted of providing the bare necessities of life and these activities demanded the service of nearly every able-bodied person. Thus, under pioneer conditions, it was only natural to value more highly than schoolmasters such productive workers as agricultural laborers or artisans. For example, the schoolmaster in the middle colonies did not occupy an exalted position. The average colonial teachers were considered to be "a cheap commodity," and "unproductive workers," "a tolerated necessity maintained subsistence and little, if any, wage" (Elsbree 1939, p. 84). Johnson (1904) stated: "The net salary of the schoolmaster in most towns, after allowing a moderate sum for board, is estimated to have hardly exceeded, or expressed in modest terms, sixty or seventy dollars" (p. 6).

Accompanying this image of teachers as being incompetent and merely keeping school is the low respect of the profession. Respect accorded various vocations, with a few exceptions, has demanded a high correlation between social position and salaries in American society. So teachers have been at a serious disadvantage.

Was it the class of individuals, many untrained and incompetent, who composed a large percentage of American public school teachers that were responsible for the public attitude toward their meager pay or did the small salaries account for the mediocre qualifications?

In the view of the state superintendents, it was the latter and they were continuously expounding about the hopelessness of improving teacher personnel without raising salaries. This view of school administration of the day was expressed by J. R. Clark, in his Essay on Common School Education in New Jersey, written in 1855 as quoted in Elsbree (1939):

The want of adequate remuneration is of itself a sufficient reason why the teachers are generally so miserably qualified for their duties. They are even better prepared than they can afford to be. Ask a man of ability and promise to spend time, money and labor in fitting himself properly to teach school for two hundred and eighty-four dollars a year and board himself! The idea is absurd. The majority of teachers are exactly what one would expect them to be. The reason is obvious why the very name of teacher has been, and is yet to some extent, a term of reproach. . . . Many a farmer will much more willingly pay a liberal price to a competent man for shoeing his horse well--he would even go farther to secure the services of a smith of experience and reputation--than to obtain a suitable individual to mould and form the character of his child.
(p. 273)

Thus, the low respect appeared to correlate with the low salaries. The following examples illustrate the low salaries of teachers at this time. Prior to 1700, teachers were often paid in provisions, or a combination of provisions and currency. For example, Small (1914) stated: "The Dedham master of 1659 received a salary of four pounds per quarter 'to be paid half in wheat and half in other corn'" (p. 126). A pound was worth three and one-third dollars. Another example included: "In Norwich, no school master is mentioned before 1577 when 'John Buchard occupied the teacher's chair and was engaged to keep nine months of the year for L 25, provisions and pay'" (p. 128).

Teachers' Salaries 1841-1920

Following the Revolutionary War, the economic and social status of teachers did not differ in any appreciable way from conditions prevailing during the latter part of the colonial period. Even though there was verbal support of education, it was still of secondary importance to the business of political reorganization, the expansion of American trade, and the improvement of agriculture. Many educational reforms were either begun or were well under way during the second quarter of the nineteenth century. These included normal schools, teachers' institutes, state and county supervision, improved certification, the extension of the school program, and the establishment of educational journals. The impact of these innovations was to heighten public interest in education and socially and financially strengthen the position of the teacher (Elsbree 1939). Despite this new educational awareness, as in the 1700s, immediate utility was the criterion by which many citizens rated the value of one's occupation. Therefore, rather low in the scale was school teaching. Public esteem, then as now, was a factor in determining the attractiveness of a vocation. Rather than talented individuals entering teaching, it was often the strange, lazy, or incompetent person. This had a direct effect on the wages of schoolteachers and, as in the past, they were forced to engage in supplementary income activities. As Elsbree summarized: "Schoolmasters continued to be poorly paid for the few months during which they were engaged to teach and were forced to supplement their meager wages by employment outside of their chosen fields" (p. 271).

Burgess (1920) analyzed trends in teachers' salaries from 1841 to 1920. He found that salaries of teachers generally rose rather steadily from 1845 to about 1858. Then came the Civil War. The war had been in progress two years before teachers' salaries began to rise, and they rose slowly. The more important changes came after the war was over, and the peak was not reached until practically ten years after the close of the hostilities. After the rise in salaries following the Civil War period, male teachers showed a distinct and considerable downward trend while female teachers experienced a very slight recession from the high point reached in 1875 (p. 25). Burgess postulated that the explanation of this unusual situation was that the salaries of the male teachers were, at that time, in closer competition with salaries in the business world than were the female teachers' salaries. Hence, when the business depression of the second half of the decade beginning in 1870 drove down the general level of wages, the salaries of male teachers were lowered as well (pp. 38-39).

Patterns in salary increases were similar during the years around World War I. From 1910 to 1917 the salaries of female teachers continued a rapid and steady increase. It was followed by very rapid increases in 1919 and 1920. However, the salaries of male teachers made little advance (Burgess 1920).

For the period from 1841 to 1920, female teachers had the highest percentage increases. For a period of forty years after 1874 the salaries of male teachers appeared to have remained almost on a level (Burgess 1920, p. 42). The impact of this phenomenon can be seen in the significant drop in the percentage of male teachers in the school from 76 percent in 1880 to 43 percent in 1918 (Burgess 1920).

Burgess (1920) then compared teachers' salaries and the cost of living. Using the figure of 100 percent for salaries and cost of living in 1841, the trend of the cost of living showed an increase of only 31 percent (p. 56). However, teachers' salaries went up steadily; thus, the absolute purchasing power of teachers improved steadily.

The five-year period from 1915 to 1920 saw a reversal in this trend. From 1915 to 1920 the cost of living increased 100 percent while teachers' salaries rose only 45 percent (Burgess 1920, p. 57). Thus, the cost of living rose further and it rose faster. It made a gain of nearly 50 percent before teachers' salaries began to rise (Burgess 1920, p. 57). The cost of living increased considerably when the United States entered World War I in 1917, whereas the increase in teachers' salaries was hardly noticeable until 1919 with the sharpest rise in 1920.

The relative value placed upon the services of teachers can be judged only by comparing their salaries with the wages paid to other workers. Burgess (1920) tabulated the weekly wages of laborers and artisans from 1841 to 1920. He discovered that weekly wages for males teaching in rural areas had risen from \$4.15 to \$26.75, for females teaching in rural areas the weekly wages had risen from \$2.51 to \$17.68, for males teaching in cities the weekly wages had risen from \$11.93 to \$60.61, and for females teaching in the cities the weekly wages had risen from \$4.44 to \$35.61 (pp. 32-33). However, for laborers and artisans during this period from 1841 to 1920, laborers' weekly wages had risen from \$4.86 to \$26.00, and weekly wages for artisans had risen from \$8.28 to an estimated \$42.00. Burgess

concluded that during the seventy-five years from 1841 to 1915, the salaries of male and female teachers in rural areas were similar in amount and increases to the wages of unskilled laborers. The salaries of female teachers in cities were similar in amount and increases to the wages of artisans. From 1841 to 1915 male and female teachers in rural areas and female teachers in cities gained on laborers and artisans in the amount of pay received. However, male teachers in cities made practically no greater percentage gains in salary in the seventy-five years from 1841 to 1915 than had artisans and laborers (p. 87).

Teachers' Salaries from 1920 to Present

As the review of teachers' salaries between 1841 and 1920 showed, teachers' salaries rose steadily except for short periods after the wars and during the depression when salaries decreased. Between the school years of 1920-1921 and 1960-1961, as seen in illustration 2, the teachers' average annual salary had gone up about five times, but in terms of purchasing power, only about three times.

The statistics indicated that teachers' salaries had risen at an average annual rate of 5.6 percent for the decade of 1950 to 1960. As Stinnett (1962) stated, "The estimated average salary of 1960-61 (\$5,389) represents an increase of 72.4 percent over the 1950-51 average (\$3,126). In terms of purchasing power, however, the gain was about 48 percent" (p. 58).

Prof. Harold F. Clark calculated the average annual earnings based on the earnings in selected occupations. The average was based on the incomes prevailing in the vocations between 1920 and 1936 (Elsbree 1939). The illustration follows.

School Year	Average Salary for School Year	PURCHASING POWER OF SALARIES	
		In 1947-49 Prices	In 1959-60 Prices
1920-21	\$1,091	\$1,369	\$1,724
1930-31	1,440	2,143	2,699
1940-41	1,470	2,406	3,030
1950-51	3,126	2,876	3,620
1960-61	5,389	4,250	5,351

SOURCE: National Education Association, Research Division, Economic Status of Teachers in 1960-61, Research Report 1961-64 (Washington, DC: The Association, 1961), 40, adapted from Table 30. (Stinnett 1962, p. 55)

Ill. 2. Average salaries of public school teachers and purchasing power of salaries by decades since 1920.

Occupation	Present Value of Average Earnings for a Working Lifetime in Dollars	Average Earnings in Dollars per Year
Medicine	\$108,000	\$4850
Law	105,000	4730
Dentistry	95,400	4170
Engineering	95,300	4410
Architecture	82,500	3820
College teaching	69,300	3050
Social work	51,000	1650
Journalism	41,500	2120
Ministry	41,000	1980
Library work	35,000	2020
PUBLIC SCHOOL TEACHING	29,700	1350
Skilled trades	28,600	1430
Nursing	23,300	1310
Unskilled labor	15,200	795
Farming	12,500	580
Farm labor	10,400	485

Adapted from Clark, Harold F. Life Earnings in Selected Occupations in the United States (New York, Harper and Brothers, 1937), p. 5. (Elsbree 1939, p. 437)

Ill. 3. Income in public school teaching and fifteen other competencies.

As the data in illustration 3 showed, teachers were in eleventh position with respect to value of life earnings and in twelfth place in average annual earnings. From a purely financial point, medicine and law were about three and one-half times as attractive as public school teaching. Nurses, unskilled laborers, farmers, and farm laborers fared worse than teachers in earning power and skilled workers occupied approximately the same position as teachers. The ministry, which ranked ninth in average earnings for working a lifetime, had an average earning per year of \$1,980. One possible explanation is that the minister may have been paid in ways other than currency, such as produce, housing, or transportation. The explanation may be similar for the area of social work.

To determine the relative value of teachers' salaries during this time, the Research Division of the National Education Association compared seventeen professions which required a bachelor's degree or higher for admission to practice. The seventeen categories of professional workers included architects, chemists, clergymen, dentists, dieticians, engineers, foresters, optometrists, osteopaths, pharmacists, physicians and surgeons, social and welfare workers, social scientists, and veterinarians (Stinnett 1962). The data showed in 1958 the average earnings of all workers in these fields to be \$8,516; of those with four years of college, \$9,008; of those with five years or more of college, \$10,664 (Stinnett 1962). However, for all public school teachers, the average earnings in 1950 were \$4,122; for those with four years of college, \$3,827; and for those with five years or more of college, \$5,373 (Stinnett 1962, pp. 56-57).

Stinnett (1962) reported that Endicott made another significant comparison of the economic status of teachers with other professional groups. The following were the average starting salaries for male college graduates in 1960 and 1961. By comparison, the median starting salary of teachers with the bachelor's degree in 1960 in cities in the population group 30,000 to 100,000 was \$4,250. The illustration follows:

Field	June 1961 Graduates	June 1960 Graduates
Engineers	\$6,240	\$6,120
Accountants	5,496	5,352
Sales	5,412	5,280
General Business Trainees	5,268	5,136
Average All Fields	5,640	---
Teachers	---	4,250

Adapted from Frank S. Endicott, "Trends in the Employment of College and University Graduates in Business and Industry, 1961," Fifteenth Annual Report (Evanston, Illinois: Northwestern University, December 1960), p. 10. (Stinnett 1962, p. 57)

Ill. 4. Average starting salaries of June, 1960 and June, 1961 graduates.

In analyzing salary trends for teachers from 1971-1972 to 1983-1984, it was found that the difference between the average salary paid in 1971-1972 and that in 1983-1984 was \$12,324, or a 126.9 percent increase over the period. However, when the salary data were converted to constant (inflation free) dollars, a loss of \$883 occurred from 1971-1972 to 1983-1984 for a decrease of 9.1 percent (Festritzer 1983).

In 1983-84, for example, \$13,197 out of the average salary of \$22,019 is accounted for by price inflation. This represents a 60% loss in purchasing power for the current average salary paid to classroom teachers, compared to a 4% loss in 1972-73. For teacher salaries to maintain their purchasing power at 1971-72 levels, the 1983-83 average salary would have to be \$24,224, that is \$2,205 higher than the current estimate.

When expressed in 1972 dollars, the average teacher salary actually dropped from \$10,164 in 1972-73 to \$8,926 in 1982-83, reflecting the loss of purchasing power due to inflation. Insofar as the consumer price index accurately measures cost of living increases, the real loss in the purchasing power of average teacher salaries totaled 12.2 percent over the past ten years. (Festritzer 1983, p. 46)

According to selected data from the National Education Association, Estimates of School Statistics: 1982-83 (1983), the average salary of teachers in current dollars in 1982-1983 was \$22,296. The percent of increase over 1981-1982 was 9.5 percent. In 1972-1973 dollars, the average 1982-1983 salary was \$9,694. In 1972-1973, the average salary of teachers in current dollars was \$10,422. This was a 7.0 percent decline in purchasing power from 1972-1973 to 1982-1983 (p. 35).

The problem with teacher salaries was pointed out further when the teachers' salaries were compared to salaries of other occupations. The following illustration compares 1976-1977 recipients of bachelor's degrees who were working full-time in eighteen areas. Only public affairs and research ranked lower than education. Clerical and secretarial ranked equal with education. In comparing the 1979-1980 bachelor's degree recipients in May 1981, education had the lowest average annual salary in constant (1981) dollars. The average annual salary was reported in constant 1981 dollars and the salaries of education were adjusted for a twelve-month period.

Occupation	1976-77 Recipients in February 1978		1979-80 Recipients in May 1981	
	Employed Full-Time	Average Annual Salary ¹ in Constant (1981) Dollars	Employed Full-Time	Average Annual Salary ¹ in Constant (1981) Dollars
Total	610,600	\$16,000	632,500	\$15,300
Business	123,200	17,800	151,600	16,400
Education	100,400	13,100	88,800	11,200
Engineering	36,700	22,400	51,200	22,900
Health professional	43,400	17,700	42,600	17,400
Public affairs	22,300	12,100	28,100	11,800
Biological & physical sciences	7,400	16,800	9,600	15,400
Fine arts	10,800	15,300	15,100	18,700
Social sciences & psychology	6,200	17,200	2,100	15,900
Research	3,600	12,700	10,500	13,400
Communications	11,200	13,600	8,300	13,000
Computer science	12,000	20,400	21,400	19,800
Technician	27,800	14,600	25,000	14,700
Other professional	9,200	16,600	10,900	14,500
Sales	44,300	17,400	58,400	16,300
Clerical and secretarial	76,000	13,100	61,300	11,400
Crafts & operatives	33,000	17,500	16,800	15,900
Other nonprofessional	41,700	15,400	30,900	12,000
Occupation not reported	1,400	17,500	---	---

¹Reported salaries of full-time workers under \$3,000 in 1978 and \$4,200 in 1981 were excluded from the tabulations.

²Most educators work 9 to 10 month contracts. Their salaries when adjusted for 12-month period averaged \$16,300 in February 1978 and \$14,000 in May 1981 in constant (1981) dollars.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1978 and 1981, unpublished tabulations (December 1982). (U.S. Department of Education 1983, p. 128)

Ill. 5. Occupational distribution and average annual salaries of recent bachelor's degree recipients working full-time: February 1978 and May 1981.

The average starting salary for teachers with a bachelor's degree was \$12,769 in 1981-1982 (Boyer 1983). When comparing the average starting teachers' salaries to starting salaries of other professionals with bachelor's degrees, the contrast is most interesting. For example, for engineers, the starting salary was \$22,368 and for business administrators \$16,200. Plus, the percent of increase from 1973-1974 to 1981-1982 was one of the lowest--only accounting was lower than teaching.

Therefore, despite periods of time when teachers' salary increases had exceeded the cost of living, in recent years this had not proven to be true. Teachers' salaries had not kept pace with the cost of living or with other professions requiring similar educational preparations.

Types of Supplementary Income Activities

The review of teachers' salaries since 1890 appeared to present remarkable increases for the profession. However, a closer examination of these salaries when compared to other professions revealed that the profession of teaching was indeed wanting in this area. This lack of remuneration when compared with the cost of living in the past decade and salaries with other professions was perceived to be one factor influencing teachers' moonlighting (Anderson 1966).

As early as 1661 teacher moonlighting is recorded. The schoolmaster generally had duties other than teaching. Boone, in his Education in the U.S., mentioned some of the duties of a schoolmaster in 1661 (Small 1914):

1. To act as court messenger
2. To serve summons
3. To conduct certain ceremonial services of the church
4. To lead the Sunday choir
5. To ring the bell for public worship
6. To dig graves
7. To take charge of the school
8. To perform other occasional duties.

A schoolmaster probably did not perform all of these duties but it was evident that many performed more than one of them.

Another major duty was that of taking the place of the minister on Sunday if the teacher was not the minister. Small (1914) stated, "New England records teem with this demand. Next to having a minister who would teach, was having a teacher who could preach" (p. 99). This practice extended over the whole colonial period.

Many other duties of the schoolmaster during colonial times were religious or semireligious in nature. They included duties such as conducting ceremonial services and leading the Sunday choir, sweeping out the meeting house, ringing the bell for public worship, digging graves, reader, chorister, psalm setter, and sexton (Elsbree 1939). Other religious duties as reported by Butts and Cremin (1953) included providing a baptismal basin, running errands, serving as messenger, keeping records, issuing invitations, writing letters, visiting the sick, and generally making himself useful.

Other duties were civic in nature. These duties included court messenger, summons server, appraiser, town clerk, accountant, translator, lecturer, and town crier (Elsbree 1939). Woody (1920)

reported that Teacher William Turpin of Providence, Rhode Island, combined school teaching with innkeeping and shoemaker and repairer were the extra jobs of Roger Sherman of Milton. As Butts and Cremin (1953) summarized,

Colonial teachers often had to supplement their meager incomes from teaching by farming, shepherding, keeping taverns, or engaging in skilled labor. This will be no news to many present-day teachers who also work afternoons and evenings in countless ways to augment their still generally inadequate salaries. (p. 135)

A paucity of moonlighting statistics exists from colonial times to the early 1960s. General statements by Elsbree (1939) and Butts and Cremin (1953) indicated that teachers continued to perceive a need to supplement their incomes.

Hirsch (1962), in a study sponsored by the Department of Labor, found that during 1959 and 1960 nearly 24 percent of all male teachers employed below the college level earned part of their income outside the classroom. Reporting on a study done by the National Education Association, Hodenfield (1963) gave findings that four out of every ten married male teachers held down some outside-the-classroom job during the 1963 year. According to the article, altogether nearly 75 percent of the married male teachers either held two jobs, worked summers or both, in order to supplement the family income.

Anderson (1948) conducted a survey of secondary school professional personnel in Wisconsin in 1948. Of the respondents, nearly 60 percent of the secondary school teacher personnel had supplementary sources of income in addition to their regular contractual salary. More than three-fourths of the males, as contrasted to 41.4 percent of the females, had sources of extra income. Approximately half of those who had extra jobs were engaged

in work related to teaching. The median extra contractual earnings from both the 1946 summer vacation and the 1946-1947 school year for men and women were \$797.77.

In 1965 Tucker studied the salary-supplementing activities of Utah public school teachers. The findings revealed that 65.6 percent of the 378 respondents supplemented their salaries. Of the respondents, 90.7 percent of the men and 32.1 percent of the women engaged in salary-supplementing activities. The mean supplemental salary was \$952.

Additional information from the study of Utah teachers revealed that two to four children were reported by 46.82 percent of the respondents and 29.10 percent had a dependent other than their children. The mean number of hours per week worked by the respondents was ten during the school term and 24.83 during the summer. The mean age of the respondents was 37.8 years and the mean years of teaching experience was 11.77 years. The mean supplemental income of the respondents was \$1,847. Farming, clerking, and selling were the most popular types of supplementary work reported.

To determine to what extent and by what means the public school classroom teachers and counselors K-12 supplemented their school income during the 1963-1964 school year, William Anderson surveyed teachers and counselors throughout Oklahoma. The response of 13,198 teachers represented a 64.1 percent return. Of these respondents, 34 percent indicated some type of supplemental income during the calendar year and 22 percent indicated some type of supplemental income during the school year. The study of Oklahoma teachers also indicated that the average Oklahoma moonlighter was a male, forty years

of age, married, with thirteen years of teaching experience. The average salary was \$5,116 and the average moonlighting income during the school year was \$1,094.39. The average classroom teacher spent eleven and one-half hours per week on the job when moonlighting.

"Salary Supplementing Activities of Male Public School Teachers in Tennessee" was the title of a study completed by George Gumm in 1968. Nine hundred male public school teachers in Tennessee were surveyed with 76 percent of the questionnaires returned. Of the respondents, 76.91 percent indicated a necessity for additional income. Income from a source other than the school system during the 1966-1967 school year was reported by 56.67 percent. The respondents were engaged in thirty-nine different supplementary jobs in addition to self-employment, which included farming. During the summer of 1957 64.32 percent were employed. The responses indicated that 35.23 percent received a supplement for duties performed for the school system during the 1966-1967 school year. The greatest number were engaged in the coaching of athletic teams, and the greatest number reported an income of between \$250 and \$499.

The Tennessee study also revealed that the respondent most likely to supplement his income from teaching was between thirty and forty-nine years of age, married, and had at least three dependents in addition to himself. He held a bachelor's degree and was less likely to supplement his salary if he had thirty quarter hours beyond the bachelor's degree than if he had received the master's degree. The respondent most likely to supplement his salary taught in a junior high school, and approximately 50 percent of the respondents received less than \$5,500 from teaching.

Additional information from the Tennessee study indicated that during the 1966-1967 school year the most frequently reported supplementary job was in the sales field. The greatest number of respondents worked from one to ten hours weekly for a period of from thirty-one to forty weeks. The largest number reported earnings of less than \$1,000. During the summer of 1967, the greatest number of respondents, 111, were engaged in summer teaching. The greatest number employed during the summer worked from thirty-one to forty hours weekly for eight weeks and earned \$500 to \$1,000.

A similar study was conducted by Charles Parker (1969) when he investigated the salary-supplementing activities of male public school teachers in Missouri during the 1967-1968 school year and the summer of 1968. A 68.7 percent response was obtained from a sample of 750 male teachers. Of the respondents, 65.21 percent indicated that it was necessary to have additional income. Of the respondents, 53.08 percent reported income from a source other than the school system during the 1967-1968 school year. The respondents were engaged in sixty-three different supplementary jobs.

During the 1967-1968 school year 42.94 percent received a supplement from their school system for performing extra duties. The greatest number was engaged in teaching. A majority of the respondents who received a supplement from their school system reported receiving less than \$750.

Additional information from the Missouri teachers indicated that the respondent most likely to engage in salary-supplementing activities was between thirty and forty-nine years of age, married, and claimed four dependents including himself. He was more likely to

hold a bachelor's degree or less and was more likely to supplement his salary if he had less than a total of nineteen years teaching experience. He was likely to have fewer than five years of teaching experience in the system of his present employment. He received a teaching salary of less than \$6,500 and had a major school assignment of a combination of grades between junior high school and senior high school.

The Missouri study also revealed that during the 1967-1968 school year the most frequently reported supplementary job was farm manager, with sales and teaching following respectively. The largest number of respondents worked from one to ten hours weekly for a period of from thirty-one to forty weeks. A majority reported earnings of \$1,000 or less.

During the summer of 1968 the largest number of respondents (63) were engaged in summer teaching. The largest number employed during the summer worked from thirty-one to forty hours a week for more than ten weeks and earned from \$751 to \$1,000.

These five major studies covered a time span of twenty-one years, and the people finding it necessary to supplement their incomes sometime during the years was more than 50 percent in each study. No major study on teacher moonlighting was then conducted until Richard Wisniewski, Dean of the College of Education at the University of Tennessee, Knoxville, and Paul Kleine, Director of the Bureau of Research Services in the College of Education at the University of Oklahoma, Norman, studied the supplementary activities among Oklahoma Education Association members (Wisniewski and Kleine 1984). About a 30 percent usable return revealed that more than one-third of the

sample earned extra income. Of the respondents (1,103), 28.7 percent were male and 71.3 percent were female. Thus, about a decade after Parker's study in 1969 a high percentage of teachers still engaged in supplementary income activities. The most common types of duties included coaching, consulting, school bus driving, and teaching summer school. Outside the school system, 31.4 percent of the respondents said that they had held jobs during the preceding three years and the average annual income was \$2,075. Summer income yielded an average of \$1,822 with 42 percent holding summer jobs. Twenty-nine percent of the respondents earned additional income from family-owned businesses. Income from sources such as dividends and interest and income from rental properties provided additional income. Wisniewski and Kleine concluded that when all types of outside income were combined 71 percent of the teachers were engaged in some type of supplemental income activity and averaged \$3,917 per year.

Similar results have been found by the National Education Association. The National Education Association has surveyed public school teachers every five years since 1956 to compile a portrait of the American public school teacher. The sixth portrait was entitled "The Status of the American Public School Teacher, 1980-81" (Toch 1982). Among the information gathered was supplementary income activities. It stated, "As in previous years, about half of the teachers surveyed in 1981 worked at other jobs to supplement their teaching salaries, earning an average of \$2,462 in extra income" (p. 13).

Data compiled by the Bureau of Labor Statistics (Rosenfeld 1979) supported the conclusion that a high percentage of teachers held

multiple jobs. It was estimated that one of every twenty employed workers held two jobs or more in May 1978. Rosenfeld stated, "While on the average, 4.8% of all employed persons held more than one job in May 1978, the proportion exceeded 8% for workers who were in the education industry, the post office and state and local governments" (p. 60). The National Education Association portrait (Toch 1982) indicated that about half of the teachers surveyed in 1981 supplemented their incomes whereas the statistics from the Bureau of Labor (Rosenfeld 1979) indicated that approximately 8 percent of the workers in education held more than one job. The difference in these two figures may be explained by the population surveyed--that is, the NEA survey included only public school teachers whereas the Bureau of Labor Statistics may be broader in the type of persons included in the statistics; e.g., superintendents, principals, and supervisory-level personnel were probably included in their sample of workers in the education industry. Also, what is classified as a supplementary job in one study may or may not be included in the other study. For instance, the Bureau of Labor Statistics probably did not view coaching or other school-related supplementary income activities as additional work categories. In an examination of these groups just previously described, for men, the highest population with second jobs (20%) were teachers below the college level. Sekscenski (1980) stated, "Since May 1979, despite some fluctuations, the number of 'moonlighters' has grown at about the same rate as the total work force; by May 1979, about 4.7 million persons had more than one job" (p. 36). An interesting fact was discovered about the 1969 to 1979 decade--the proportion of women multiple jobholders nearly doubled from 16 percent to 30 percent of

all moonlighters. "However, the number of men with multiple jobs remained about 3.3 million" (Sekscenski 1980, p. 36). As in May 1978, education was one of the groups with the highest proportion of moonlighters--8.2 percent. Thus, historically, as now, teachers engaged in supplementary income activities.

Reasons for Moonlighting

The reasons for teachers engaging in supplementary income activities were many and varied. As previously indicated, as far back as the 1600s teachers' salaries were relatively poor (Elsbree 1939; Small 1914) and teachers found they needed to be engaged in salary-supplementing activities (Butts and Cremin 1953; Elsbree 1939; Small 1914; Woody 1920).

Research conducted by Tucker in 1965 in Utah revealed that 91.12 percent of the respondents stated that they needed extra money for current expenses. Anderson (1948) concluded from his findings that a low teaching salary was the prime cause of moonlighting among classroom teachers in Wisconsin as discerned by the superintendents responding to the study. The superintendents' responses in Anderson's (1966) study of Oklahoma personnel as to why classroom teachers felt moonlighting was necessary was that the classroom teachers did it because of low teaching salaries.

A survey of Texas public school teachers (Maddux, Henderson, and Darby 1980) showed one of three teachers (291 respondents) was considering leaving the profession due to discontent with the low salaries. The survey also revealed that holding a job during the school year as well as during the summer was common among the

respondents. Twenty-two percent of the sample indicated that they worked in another job during the school year while 30 percent held extra jobs during the summer.

A follow-up survey to the Maddux, Henderson, and Darby (1980) study of educators in Texas was conducted by Henderson, Darby, and Maddux (1982). Henderson, Darby, and Maddux revealed that more than one in three teachers was seriously considering leaving the profession. Nearly 30 percent of those surveyed were moonlighting to supplement their salaries.

Sekscenski (1980), an economist in the Office of Current Employment Analysis, Bureau of Labor Statistics, reported that "the distribution of reasons for working more than one job has shown few year to year changes since 1974" (p. 37). Over 30 percent (30.4%) of the men and women moonlighted to meet regular expenses, 6.7 percent moonlighted to pay off debts, 9.5 percent to save for the future, 8.5 percent to get experience, 5.9 percent to held a friend or relative, 8.3 percent to buy something special, 18.2 percent because of enjoying the work, 1.3 percent changed jobs, and 11.3 percent for other reasons (Sekscenski 1980, p. 37).

In the study conducted by Wisniewski and Kleine (1984) of Oklahoma teachers, the findings revealed that 37.7 percent of the respondents needed the money to pay debts, 36.5 percent moonlighted to improve living standards, 5.5 percent were pursuing a secondary work interest, 4.7 percent were looking for a diversion from teaching, 5.1 percent were preparing to leave teaching, and 10 percent cited some other reason. Thus, almost three-quarters of the respondents engaged in moonlighting for monetary reasons (to pay debts and to improve

living standards).

Boyer, President of the Carnegie Foundation for the Advancement of Teaching and former United States Commissioner of Education, stated: "For many teachers, moonlighting is essential" (McCormack 1982, p. 2). This statement was echoed by Hobart, President of the New York State United Teachers, who concluded the following about the survey of teachers moonlighting that they had conducted. "These figures--especially the percentage of teachers who work at second jobs during the school year (about 33%)--emphasize the severe problem of low salaries for teachers" ("Moonlighting: A Fact of Life" 1984, p. 2). Thus, the research available indicated that the primary reason for moonlighting was done out of financial necessity.

Effects of Moonlighting

Very little research exists about the effects of teachers' moonlighting. What criteria can concretely demonstrate whether supplementary income activities enhance, hinder, or have no effect on teachers and teaching performance? Thus, the research that does exist dealt mainly with the perceptions of teachers regarding the effects of moonlighting.

One purpose of the study conducted by Anderson (1948) of the professional personnel of Wisconsin secondary schools was to investigate the effects of engaging in supplementary income activities. The conclusions regarding the effects of moonlighting included the following:

"One fifth of the teacher personnel who had extra jobs believed that this additional employment deprived them of needed rest" (p. 232).

"That this work experience better qualified them to teach, was expressed by 62.4% of those who had outside employment" (p. 233).

"More than three-fourths, 78.3% stated that this part time job had improved their ability to get along with others" (p. 233).

"Approximately three-fourths doubted that their part time employment had lowered their prestige as a teacher" (p. 233).

"Some embarrassment in the classroom as a result of holding a part-time job was reported by six percent of the teachers" (p. 233).

"Ten percent of the teachers and principals felt that their extra-employment tended to cause dissension within the faculty" (p. 233).

Less than 5 percent felt that their outside employment had jeopardized their rating by the principal.

Thirty-eight percent of those who held part-time jobs stated that this employment made them more appreciative of teaching; 44.2 percent felt that it had not; while 17.8 percent had no opinion.

Twenty-nine percent felt that this additional employment made them dissatisfied with teaching.

It could be concluded from these findings that a few of the teachers might be fatigued as a result of moonlighting. There was, however, no strong evidence that the teachers felt their teaching was jeopardized by moonlighting since these supplementary income activities were perceived not to hinder teachers or teaching performance.

Similar findings were revealed by another study seeking to discover the effects of engaging in supplementary income activities. "Does the experience you are gaining in your extra-contractual work or activities tend to improve your teaching?" was a question asked on a

survey in the study of salary-supplementing activities of Utah public school teachers by Melvin L. Tucker (1965) in 1964. The respondents were to indicate if the activities improve the teaching very much, much, little, very little, none, or detracts. The findings revealed that 45.02 percent of the respondents stated that their extra jobs had little, very little, or no effect on their efficiency as teachers.

These findings were not corroborated in the study conducted by Cleborne D. Maddux, David L. Henderson, and Charles E. Darby (1980). Maddux, Henderson, and Darby, in the survey of Texas teachers, asked the following question, "Do you feel that the quality of your teaching would improve if you did not have a second job during the regular school year?" Sixty-four percent of those moonlighting answered yes to this question.

Wisniewski and Kleine (1984) also tried to investigate the perceptions of teachers in regard to the effect of engaging in supplementary income activities on teachers and teaching. They discovered:

Twenty-two percent of the respondents believe that their supplemental job actually helps their teaching performance, 20% believe that it hinders their teaching, and 58% believe that it has no effect; 14% believe that their extra job helps their preparation for teaching, 28% believe that it hinders, and 58% believe that it has no effect; 9% believe that their extra job helps their private reading and study, 51% believe that it hinders, and 40% believe that it has no effect; 8% believe that their supplemental employment helps their advanced graduate study, 34% that it hinders, and 58% that it has no effect; 10% believe that their extra job helps their in-service training, 59% that it hinders, and 31% that it has no effect; and 23% believe that their extra job helps their physical well-being, 37% that it hinders, and 40% that it has no effect. The area hardest hit by the demands of outside employment is family life; 59% of the respondents said that outside employment hinders their family and social activities. (p. 555)

The data showed that a majority or substantial number of teachers believed that moonlighting had no effect on teachers in these areas. However, 59 percent of the respondents reported outside employment hindered family and social activities. From the data gathered by Wisniewski and Kleine, it is possible to conclude that, generally, the teachers who engaged in supplementary income activities felt these activities had no affect on teachers or teaching performance.

Related Research

A review of the literature, studies, and research related to teachers engaged in supplementary income activities revealed that there was a paucity of information, particularly in the area of the impact of being engaged in these activities. The major research that does exist has been interwoven into the body of this chapter.

Relationship of the Literature to This Study

The literature reviewed has dealt with several broad areas. The relationship of the historical aspects of the profession of teaching, the salaries of teachers and consequent purchasing power, the extent of moonlighting, the reasons for moonlighting, and the perceived impact were germane to the understanding of the meaning and rationale of the current status of teachers engaging in supplementary income activities.

CHAPTER III

PROCEDURE OF THE STUDY

Introduction

The purposes of this study were to develop profiles of the teacher engaged in supplementary income activities, the teacher not engaged in supplementary income activities, and to compare the differences; to develop profiles of the teachers engaged in one, two, or three or more supplementary income activities, and to compare the differences; to investigate the need for teachers in Minnesota to engage in supplementary income activities; to identify the perceived reasons for teachers engaging in supplementary income activities; and to examine the perceived impact of engaging in supplementary income activities on the quality of teachers and teaching. This chapter describes the sample involved; the rationale for the selection of the sample; the instrument used; the procedure used to validate the instrument; the procedure implemented for collecting, scoring, and tabulating the data; and the statistical treatment of the data.

The Sample

A 3 percent (3%) sample was randomly selected from among the population of 45,000 Minnesota teachers by the State Department of Education in Minnesota. The 3 percent (3%) sample was statistically proportional on the basis of sex, age, geographical area, and level

of teaching.

The rationale for the selection of the sample involved in the study was based on the writer's perception that a 70 percent return from a sample of 1,224 teachers would accurately reflect information about the prevalence of teachers engaged in supplementary income activities, the perceived effects upon the quality of teachers and teaching, and the other research questions. The sample consisted of teachers at all levels of instruction, age, sex, and geographical areas. This was done in order to gain an overall profile of both the teachers engaged and those not engaged in supplementary income activities.

Development of the Instrument

In preparation for developing an instrument which corresponded with the research questions, four questionnaires used in similar previous studies were obtained and reviewed. A questionnaire consisting of fifty-one statements and questions was compiled. It was reviewed by the writer's advisor and a statistics professor for clarity and relatedness. Following the reviews four statements were deleted, nine statements were revised, and all statements were reworded into questions. The questionnaire was again reviewed by the writer's advisor, nineteen additional questions were revised, and three questions were added. Directions for completing the questionnaire were added, reviewed, and revised. The questionnaire then consisted of fifty questions to be completed by the respondents. After a detailed analysis of the research questions and after correlating the research questions with the questionnaire, two questions were deleted. The questionnaire was then reviewed by a University of North Dakota

statistics professor to determine the appropriate statistical procedures to be used in the analysis of the data. Eight questions were then revised for clarity and to aid the respondent who did not participate in supplementary income activities.

A panel of three judges which consisted of professors of educational administration at the University of North Dakota independently examined the questionnaire. The panel of judges was invited to offer suggestions which assisted in the revision of items and/or the generation of new items. Also, one school was selected to test the questionnaire. The questions were critiqued for clarity and appropriateness. This assisted in the development of the content and face validity of the instrument.

Collecting the Data

The forty-eight question instrument was mailed to 1,224 teachers in Minnesota on April 30, 1985. Of the questionnaires sent, 731 or 60 percent were returned. Of these 731 returned questionnaires, 39 were unusable, leaving a total of 692 usable questionnaires for a 57 percent usable return. As the instruments were returned the data from the participants were scored and transferred to Fortran C coding forms, keypunched onto standard IBM computer cards, and analyzed statistically using appropriate statistical procedures. The Statistical Package for the Social Sciences X (SPSSX) (SPSS Inc. 1983) was used in the development of the computer program. The IBM 370 computer at the University of North Dakota Computer Services Center was used to process the data.

Statistical Tests

The statistical tests of means, frequency distribution, Pearson product-moment correlation, analysis of variance, and Chi Square were used in developing the profile of the teacher engaged in supplementary income activities; the teacher not engaged in supplementary income activities; and the teachers engaged in one, two, and three or more supplementary income activities; and in determining the differences in the profiles (Research questions 1 and 2 and Null hypotheses 1 and 2).

The Chi Square test was used to determine if a statistically significant relationship existed between two nominal variables (Roscoe 1975). The Chi Square test in this study was used to determine the relationship between the variables of sex, marital status, the highest completed degree, types of teaching certificates, position of the teachers, level assigned a majority of the time, teaching salary as the primary income, and being engaged in supplementary income activities. The Chi Square test was also used to determine if there was a statistically significant relationship between these variables and being engaged in one, two, or three or more supplementary income activities.

The Chi Square test was also used to determine if there was a statistically significant relationship between the professional development activities of teachers and being engaged in supplementary income activities and the relationship between professional development activities and being engaged in one, two, or three or more supplementary income activities (Null hypotheses 4 and 5). This statistical test was also used to determine if a statistically significant relationship

existed between the position of the teachers and the professional activities engaged in (Null hypothesis 6), and if a statistically significant relationship existed between the attitudes toward engaging in supplementary income activities and the number of activities engaged in (Null hypothesis 9).

The analysis of variance test was used to statistically test the interval/ratio variables of the profiles that permitted this treatment. Roscoe (1975) stated, "The analysis of variance provides a statistical procedure that is appropriate for use with two or more samples" (p. 292). The analysis of variance test was used to compare the variables of age, the number of children under eighteen supported by the teacher, the number of other dependents supported by the teacher, the number of total years taught, the number of years taught in the present school system, salary, spouse's income, and the population of the community in which the teacher taught and being engaged in supplementary income activities. The analysis of variance was also used to compare these variables and being engaged in one, two, or three or more supplementary income activities. It was also used to determine if a relationship existed between the perceived effects of being engaged in supplementary income activities and the hours/week invested in the activities.

The Pearson product-moment correlation was used to test the possible relationships among the variables. As Roscoe (1975) stated, "The term correlation refers to the degree of correspondence or relationship between two variables. Correlated variables are those which tend to vary together--when one is larger, the other tends to be systematically larger or smaller" (p. 93). This statistical test was

used to determine if a relationship existed between the number of years the teachers planned to remain in the profession and the amount of time (hours/week) invested in the supplementary income activity (Null hypothesis 3). The number of years to remain in teaching was not an interval variable but the violation of the assumption of the interval scale for a Pearson correlation was not considered to be significant (Guilford 1965, p. 108).

The sources of professional education income and average (mean) dollar amount from these income sources among teachers engaged in supplementary income activities were reported with a frequency distribution, mean, and as proportions (Research question 5). The sources of other income (Research question 6), sources of income from supplementary activities (Research question 7), professional development activities (Research questions 8 and 9), reasons for engaging in supplementary income activities (Research question 10), effects of engaging in supplementary income activities (Research question 12), and attitudes toward engaging in supplementary income activities (Research question 13) were all reported as frequency distributions and proportions.

The data obtained for Research question 3 were reported as a proportion of teachers engaged in supplementary income activities. The amount of time spent engaging in supplementary income activities was reported with a mean (Research question 4).

The relationship between age and the number of professional development activities was measured with the t -test. The t -distribution may be used as a model for testing a hypothesis about the means of a normally distributed population. The test assumes that

the sampling distribution of the means is normal and determines whether the population of interest differs significantly from the norm group (Roscoe 1975).

CHAPTER IV

ANALYSIS OF THE DATA

This chapter presents the results of analyses of data. The results are presented in the order in which the research questions were presented. Thirteen research questions and nine null hypotheses are discussed. Chi Square, Pearson product-moment correlation, the t-test, and analysis of variance were used to test the null hypotheses. A probability level of .05 or less was considered to be adequately significant to reject the null hypotheses.

Results of the Statistical Analysis

Research question 1. What is the profile (personal and professional characteristics) of the teacher who is engaged in supplementary income activities; of the teacher who is not engaged in supplementary income activities; and what are the differences between the two? The statistics for this research question are found in tables 1 through 15.

The personal and professional characteristics included in the profile were sex, marital status, age, number of dependent children under the age of eighteen supported by the teacher, other dependents supported by the teacher, highest completed degree, type of teaching certificate, teaching position, level of teaching assigned a majority

of time, total years taught, total years taught in present school system, salary, salary as primary income, spouse's income, and population of the community in which the teacher taught.

To determine which of the personal and professional characteristics were significantly different between the profile of the teachers not engaged in supplementary income activities and the profile of the teachers engaged in supplementary income activities, the following null hypothesis was tested. The results of the statistical treatment of the data are reported.

Null hypothesis 1. There are no significant differences between the profile of the teacher who does not engage in supplementary income activities and the profile of the teacher who does engage in supplementary income activities.

The data in table 1 show the sex of the teachers who did engage in supplementary income activities and the sex of teachers who did not engage in supplementary income activities.

A majority (78.2 percent) of the teachers who did not engage in supplementary income activities were female. Of those who did engage in supplementary income activities, 48.0 percent were female and 52.0 percent were male.

To determine if a relationship existed between sex and teachers engaged and not engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 1 showed that there was a statistically significant relationship at the .0001 level between the sex of teachers and being engaged in supplementary income activities. The Chi Square reported in table 1 is reported within sexes (column percent) and within activity levels

TABLE 1

COMPARISON OF SEX OF TEACHERS WHO DID NOT ENGAGE IN
SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS WHO
DID ENGAGE IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Teacher	Sex	Number	Row Percent	Column Percent
Did not engage in supplementary income activities	Female	183	78.2	45.4
	Male	51	21.8	17.6
Did engage in supplementary income activities	Female	220	48.0	54.5
	Male	238	52.0	82.4

Chi Square = 57.96 with df = 1, $p < .0001$; N = 692

(row percent). The major interpretation is that while more teachers are engaged in supplementary income activities than are not, this is not distributed evenly across sexes. Of the male respondents, 82.4 percent were engaged in supplementary income activities whereas about half (54.5 percent) of the female respondents were engaged in supplementary income activities.

The data about the marital status of the respondents are presented in table 2.

Of those who did not engage in supplementary income activities, most (81.6 percent) were married. This was also true of those who did engage in supplementary income activities with 76.6 percent being married.

To determine if a relationship existed between marital status and teachers engaged and not engaged in supplementary income activities, a Chi Square test was performed. The data in table 2 showed that there was no statistically significant relationship at the

TABLE 2

COMPARISON OF MARITAL STATUS OF TEACHERS WHO DID NOT ENGAGE
IN SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS WHO
DID ENGAGE IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Teacher	Marital Status			
	Not previously married	Single, previously married	Married	Widowed
Did not engage in supplementary income activities	27 11.5	12 5.1	191 81.6	4 1.7
Did engage in supplementary income activities	68 14.8	34 7.4	351 76.6	5 1.1

Chi Square = 3.40 with df = 3, $p > .05$; N = 692

.05 level on the basis of the percentage of the marital status of teachers and not being engaged or engaged in supplementary income activities.

The age of the respondents is presented in age categories in table 3.

The mean age of teachers not engaged in supplementary income activities was 43.7, the median was 41.0 years of age. There were five missing cases. The mean age of teachers engaged in supplementary income activities was 39.5, the median age was 39.0. There were six missing cases.

To determine if a relationship existed between age and teachers engaged and not engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 3

TABLE 3

COMPARISON OF AGE OF TEACHERS WHO DO NOT ENGAGE IN
SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS WHO
DO ENGAGE IN SUPPLEMENTARY INCOME ACTIVITIES

Age Category in Years	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
20-24	1	.4	18	4.0
25-29	13	5.7	55	12.2
30-34	41	17.9	57	12.6
35-39	43	18.8	99	21.9
40-44	43	18.8	88	19.4
45-49	16	7.0	68	15.1
50-54	40	17.4	46	10.2
55-59	17	7.4	15	3.3
60-64	15	6.6	6	1.1
	Mean	43.7	Mean	39.5
	Median	41.0	Median	39.0

F ratio = 18.36 with df = 1 and 679, p = .00001; N = 687

showed that there was a statistically significant relationship between the age of teachers and being not engaged or engaged in supplementary income activities at the .00001 level. These data indicated that teachers who do not engage in supplementary income activities are significantly older than teachers who do engage in supplementary income activities.

The number of dependent children under the age of eighteen supported by teachers who do not engage in supplementary income

activities ranged from 0 to 9. The data are shown in table 4.

TABLE 4

COMPARISON OF NUMBER OF DEPENDENT CHILDREN UNDER THE AGE OF EIGHTEEN SUPPORTED BY TEACHERS WHO DID NOT ENGAGE IN SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS WHO DID ENGAGE IN SUPPLEMENTARY INCOME ACTIVITIES

Number of Children	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
0	120	51.5	190	41.6
1	33	14.2	86	18.8
2	65	27.9	107	23.4
3	11	4.7	57	12.5
4	3	1.3	12	2.6
5	0	0	3	.7
6	0	0	1	.2
7	0	0	1	.2
8	0	0	0	0
9	1	1.3	0	0
	Mean	.93	Mean	1.19
	Median	0.0	Median	1.00

F ratio = 7.18 with df = 1 and 688, p = .0075; N = 691

The mean was .93, the median .0. There was one missing case. Of the teachers who did engage in supplementary income activities, the number of dependent children under the age of eighteen supported by teachers ranged from 0 to 7. The mean was 1.19, the median 1.00 with one missing case.

To determine if a relationship existed between the number of children under eighteen supported by the teachers engaged in supplementary income activities and not engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 4 showed that it was significant at the .01 level. These data indicated that respondents who did engage in supplementary income activities had more dependent children under eighteen than teachers who did not engage in supplementary income activities.

The data of other dependents supported by teachers showed that the number ranged from 0 to 4 for teachers not engaged in supplementary income activities. The mean was .33. Of teachers engaged in supplementary income activities the number of other dependents ranged from 0 to 3 with a mean of .35. These data are reported in table 5.

To determine if a relationship existed between the number of other dependents supported by the teachers not engaged in supplementary income activities and engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 5 showed that there was not a statistically significant relationship at the .05 level. Therefore, there is no statistically significant relationship between the number of other dependents supported by teachers and being engaged in supplementary income activities.

The comparison of highest completed degree of teachers is shown in table 6.

Of the teachers not engaged in supplementary income activities, most (58.4 percent) had a Bachelor's Degree plus additional college

TABLE 5

COMPARISON OF NUMBER OF OTHER DEPENDENTS SUPPORTED BY TEACHERS
NOT ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES AND
ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Number of Other Dependents	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
0	176	75.2	323	71.0
1	42	17.9	109	24.0
2	15	6.4	17	3.7
3	0	0	3	1.3
4	1	.4	0	0
	Mean	.33	Mean	.35

F ratio = .33 with df = 1 and 687, p = .5627; N = 692

TABLE 6

COMPARISON OF HIGHEST COMPLETED DEGREE OF TEACHERS NOT ENGAGED
IN SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS
ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Degree	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
Bachelor's Degree	15	6.4	35	7.6
Bachelor's Degree plus Additional College Credits	136	58.4	227	49.6
Master's Degree	20	8.6	48	10.5
Master's Degree plus Additional College Credits	57	24.5	130	28.4
Educational Specialist's Diploma or Sixth-Year Certificate	3	1.3	17	3.7
Doctoral Degree (Ed.D. or Ph.D.)	2	.9	1	.2

Chi Square = 8.62 with df = 5, $p > .05$; N = 691

credits. Of the teachers engaged in supplementary income activities, most (49.6 percent) had Bachelor's Degrees plus additional college credits. There was one missing case.

To determine if a relationship existed between the highest degree completed and teachers engaged and not engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 6 showed that there was no statistically significant relationship at the .05 level between the highest degree completed and being engaged in supplementary income activities.

The type of teaching certificate held by teachers is displayed in table 7.

TABLE 7

COMPARISON OF TYPE OF TEACHING CERTIFICATE HELD BY TEACHERS NOT ENGAGED IN SUPPLEMENTARY
INCOME ACTIVITIES AND TEACHERS ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Teaching Certificate	<u>Do Not Engage</u>			<u>Do Engage</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Elementary Certificate	154	79.0	46.2	179	59.7	53.8
No Elementary Certificate	41	21.0	25.3	121	40.3	74.7
Chi Square = 19.14 with df = 1, p < .0001						
Junior High/Middle School Certificate	25	20.2	23.4	82	34.7	76.6
No Junior High/Middle School Certificate	99	79.8	39.1	154	65.3	60.9
Chi Square = 7.59 with df = 1, p < .01						
Secondary Certificate	62	43.7	20.0	248	76.1	80.0
No Secondary Certificate	80	56.3	50.6	78	23.9	49.4
Chi Square = 45.02 with df = 1, p < .001						
Other Certificates (e.g., special services, vocational, kindergarten)	83	53.9	37.0	141	52.6	63.0
No Other Certificates	71	46.1	35.9	127	47.4	64.1
Chi Square = 0.02 with df = 1, p > .05						

N = 692

Teachers responding to this question had the opportunity to check more than one response since many teachers have more than one type of certification. Thus, the total of the number will be greater than the number of respondents in each group and the total of the percents will be greater than one hundred. Most teachers not engaged in supplementary income activities had elementary certification (79.0 percent) and 53.9 percent had certification in the other category (e.g., special services, vocational, kindergarten). Of the teachers engaged in supplementary income activities, most teachers had secondary certification (76.1 percent), 59.7 percent had elementary certification, and 52.6 percent had some other certification.

To determine if a relationship existed between certification and being engaged in supplementary income activities, a Chi Square test was performed at each level of certification. An examination of the data in table 7 showed that a significant relationship did exist with teachers with elementary certification, junior high/middle school certification, and secondary certification but not other types of certification. Significantly more teachers who did not hold elementary certification engaged in supplementary income activities than those who did hold elementary certification, and significantly more teachers who held junior high/middle school and secondary certification engaged in supplementary income activities than those who did not hold junior high/middle school or secondary certificates. The proportion of teachers engaged in supplementary income activities was not uniform across certification levels. The highest proportion of teachers engaged in activities had secondary certification. The lowest proportion of teachers engaged in activities had elementary

certification.

The data in table 8 compare the position of the teachers.

TABLE 8

COMPARISON OF POSITION OF TEACHERS NOT ENGAGED IN SUPPLEMENTARY
INCOME ACTIVITIES AND TEACHERS ENGAGED IN
SUPPLEMENTARY INCOME ACTIVITIES

Type of Position	<u>Do Not Engage</u>			<u>Do Engage</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Classroom Teacher	161	69.1	31.2	355	77.5	68.8
Teacher/Administrator	7	3.0	36.8	12	2.6	63.2
Specialist (e.g., reading teacher, counselor)	65	27.9	41.7	91	19.9	58.3

Chi Square = 5.95 with df = 2, $p < .05$; N = 691

For teachers not engaged in supplementary income activities, as well as for those that were engaged, most teachers (69.1 percent of those not engaged and 77.5 percent of those engaged) were classroom teachers. There was one missing case.

To determine if a relationship existed between the level of teaching assignment and being engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 8 showed that there was a statistically significant relationship at the .05 level. The data indicated that significantly more teachers engaged than did not engage. While in every position teachers were more likely to engage, specialists were slightly less likely to engage than classroom teachers.

The level the teachers were assigned a majority of time is compared in table 9.

TABLE 9

COMPARISON OF LEVEL ASSIGNED A MAJORITY OF THE TIME OF
TEACHERS NOT ENGAGED IN SUPPLEMENTARY INCOME
ACTIVITIES AND TEACHERS ENGAGED IN
SUPPLEMENTARY INCOME ACTIVITIES

Level Assigned a Majority of Time	<u>Do Not Engage</u>			<u>Do Engage</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Elementary	144	61.5	49.1	149	32.5	50.9
Jr. High/Middle School	32	13.7	26.0	91	19.9	74.0
Senior High	34	14.5	17.3	162	35.4	82.7
Multilevel	21	9.0	27.6	55	12.0	72.4
Other (e.g., Kindergarten)	3	1.3	75.0	1	.2	25.0

Chi Square = 62.19 with df = 4, $p < .0001$; N = 692

Of the teachers not engaged in supplementary income activities, 61.5 percent were elementary teachers. For teachers engaged in supplementary income activities, 35.4 percent were secondary teachers, followed closely by those teaching at the elementary level with 32.5 percent.

To determine if a relationship existed between the level of the teaching assignment and being engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 9 showed that there was a statistically significant

relationship at the .0001 level between the level of assignment and being engaged in supplementary income activities. The data showed that at the elementary level the percentage of teachers who did and did not engage was about the same. At the junior high/middle school, senior high, and multilevel levels significantly more teachers did engage than did not engage. Also, of the teachers teaching at other levels, significantly more did not engage than did engage in supplementary income activities. Therefore, teachers assigned at the elementary level are less likely to engage than teachers assigned to the junior high/middle school, senior high, or multilevel levels. Significantly more teachers assigned to other areas did not engage than did. However, the sample was so small that to generalize may be inaccurate.

The data in table 10 show the intervals of the total number of years teachers have taught.

The number of years taught ranged from 1 to 45. Of the teachers not engaged in supplementary income activities, the mean years taught was 16.6, the median 15.0 years. Of the teachers engaged in supplementary income activities, the mean years taught was 15.3, the median 15.0 years with two missing cases. There were four missing cases.

To determine if a relationship existed between the total years the teachers taught and being engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 10 showed that there was no significant relationship at the .05 level between the number of total years teachers taught and being engaged in supplementary income activities.

TABLE 10

COMPARISON OF TOTAL YEARS TAUGHT OF TEACHERS NOT ENGAGED AND
TEACHERS ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Total Years Taught	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
1-5	19	8.2	59	12.9
6-10	39	16.8	79	17.4
11-15	64	50.6	96	21.0
16-20	47	20.2	101	22.2
21-25	22	9.5	68	14.9
26-30	21	9.1	38	8.3
31-35	17	7.3	12	2.6
36-40	2	.9	2	.5
40-45	1	.4	1	.2
	Mean	16.6	Mean	15.3
	Median	15.0	Median	15.0

F ratio = 3.27 with df = 1 and 686, p = .0706; N = 688

The total years taught in the present school system ranged from 1 to 40 years. For teachers not engaged in supplementary income activities, the mean was 13.4 and the median 14.0. For teachers engaged in supplementary income activities, the mean was 12.6, the median 14.0 with one missing case. There was one missing case. The data are presented in table 11.

To determine if a relationship existed between the total years taught in the present school system and being engaged in

TABLE 11

COMPARISON OF YEARS TAUGHT IN THE PRESENT SCHOOL SYSTEM
OF TEACHERS NOT ENGAGED IN SUPPLEMENTARY INCOME
ACTIVITIES AND TEACHERS ENGAGED IN
SUPPLEMENTARY INCOME ACTIVITIES

Years Taught in Present District	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
1-5	41	17.5	97	21.2
6-10	45	19.3	85	18.6
11-15	63	26.9	106	23.2
16-20	43	18.4	111	24.3
21-25	21	8.9	39	8.5
26-30	19	8.1	14	3.1
31-35	2	.9	3	.7
36-40	0	0	2	.4
	Mean	13.5	Mean	12.6
	Median	14.0	Median	14.0

F ratio = 1.84 with df = 1 and 689, p = .1753; N = 691

supplementary income activities, an analysis of variance was performed. An examination of the data in table 11 showed that there was no significant relationship at the .05 level between the number of years taught in the present school system and being engaged in supplementary income activities.

The salaries of teachers ranged from \$10,000 to \$44,999 as shown in table 12.

TABLE 12

COMPARISON OF SALARY BETWEEN TEACHERS NOT ENGAGED IN
SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS
ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Salary Intervals	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
10,000-14,999	5	2.2	2	0.4
15,000-19,999	31	13.6	91	20.0
20,000-24,999	72	31.6	124	27.2
25,000-29,999	58	25.4	122	26.7
30,000-34,999	46	20.2	96	21.1
35,000-39,999	16	7.0	19	4.2
40,000-44,999	0	0.0	2	0.4
	Mean	25,641	Mean	25,248
	Median	25,000	Median	25,000

F ratio = .6982 with df = 1 and 682, p = .4037; N = 684

The mean was \$25,641 and the median \$25,000, with six cases missing for teachers not engaged in supplementary income activities. For teachers engaged in supplementary income activities, the mean was \$25,248, the median \$25,000 with two missing cases.

To determine if a relationship existed between the salary of teachers and being engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 12 showed no significant relationship at the .05 level between the salary of teachers and being engaged in supplementary income activities.

The comparison of salary as primary income in table 13 revealed that for teachers not engaged in supplementary income activities, the teaching salary was the primary income for 72.6 percent. However, for teachers engaged in supplementary income activities, the teaching income was the primary income 87.3 percent of the time. There were five missing cases.

TABLE 13

COMPARISON OF SALARY AS PRIMARY INCOME OF TEACHERS NOT
ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES AND
TEACHERS ENGAGED IN SUPPLEMENTARY
INCOME ACTIVITIES

Salary Primary Income	<u>Do Not Engage</u>			<u>Do Engage</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Yes	167	72.6	29.5	399	87.3	70.5
No	63	26.9	52.0	58	12.7	47.9

Chi Square = 21.78 with df = 1, $p < .0001$; N = 687

To determine if a relationship existed between the teaching income as primary income and being engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 13 showed that there was a statistically significant difference at the .0001 level between teaching salary as the primary income and being engaged in supplementary income activities. When coding the responses, it appeared that some teachers interpreted this question as meaning whether or not the teaching income was the primary income of the family and some interpreted it as meaning whether or not

the teaching income was the primary income of the person teaching. The intent of the question was whether or not the teaching income was the primary income of the family. The data indicated that significantly more teachers who indicated that the teaching salary was the primary income engaged in supplementary income activities than did not engage in supplementary income activities. Teachers who indicated that their teaching salary was not their primary income were slightly less likely to engage in supplementary income activities.

The data in table 14 show the comparison of income earned by the spouse.

The spouse's income ranged from \$0 to \$99,999. The mean for teachers not engaged in supplementary income activities was \$25,313, the median \$24,000 with seventy-six missing cases. For teachers engaged in supplementary income activities, the mean of the spouse's income was \$17,883, the median \$18,000 with 154 missing cases.

To determine if a relationship existed between the spouses' income of teachers not engaged and teachers engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 14 showed a significant relationship between the income earned by the spouses and being engaged in supplementary income activities at the .0001 level. Spouses of teachers not engaged in supplementary income activities earned significantly more than spouses of teachers engaged in supplementary income activities.

The data in table 15 show the comparison of the population of the community in which the teachers taught.

TABLE 14

COMPARISON OF INCOME EARNED BY SPOUSE OF TEACHERS NOT ENGAGED
IN SUPPLEMENTARY INCOME ACTIVITIES AND TEACHERS ENGAGED
IN SUPPLEMENTARY INCOME ACTIVITIES

Spouse's Income	<u>Do Not Engage</u>		<u>Do Engage</u>	
	Number	Percent	Number	Percent
0- 9,999	16	10.1	99	32.6
10,000-19,999	35	22.2	70	23.0
20,000-29,999	54	34.2	81	26.6
30,000-39,999	33	20.8	31	10.2
40,000-49,999	12	7.6	14	4.6
50,000-59,999	4	2.6	5	1.7
60,000-69,999	2	1.2	3	1.0
70,000-79,999	1	.7	1	.3
80,000-89,999	0	0	0	0
90,000-99,999	1	.6	0	0
	Mean	25,313	Mean	17,883
	Median	24,000	Median	18,000

F ratio = 33.01 with df = 1 and 460, p = .0001; N = 538

TABLE 15

COMPARISON OF THE POPULATION OF THE COMMUNITY IN WHICH
TEACHERS TAUGHT AND BEING ENGAGED IN
SUPPLEMENTARY INCOME ACTIVITIES

Population	Not Engaged in Supplementary Income Activities		Engaged in Supplementary Income Activities	
	Number	Percent	Number	Percent
1- 999	29	14.3	53	12.5
1,000- 9,999	69	34.0	139	32.9
10,000-49,999	72	35.4	156	36.9
50,000-99,999	14	6.9	40	9.4
Over 100,000	19	9.4	35	8.3
	Mean	49,211	Mean	56,616
	Median	10,000	Median	12,000

F ratio = .2414 with $df = 1$ and 624, $p = .6234$; $N = 626$

The mean for teachers not engaged in supplementary income activities was 49,211 and the median 10,000. The mean for teachers engaged in supplementary income activities was 56,616 and the median 12,000. There were sixty-six missing cases.

To determine if a relationship existed between the population of the community in which the teachers taught and being engaged in supplementary income activities, an analysis of variance was performed. An examination of the data in table 15 showed no significant relationship between the population of the community in which teachers taught and being engaged in supplementary income activities.

The profiles consist of the characteristics most teachers engaged and not engaged in supplementary income activities possessed. The mode is the statistic that is typically used as the measure of central tendency reported in the categorization of characteristics in the profiles. The profiles follow.

The profile of a teacher not engaged in supplementary income activities would be a married female who is forty-four years old and would support one child under eighteen but no other dependents. This teacher would hold a Bachelor's Degree and have additional college credits. The individual would be a certified elementary classroom teacher spending most of her teaching time in an elementary classroom. This teacher would have seventeen years of teaching with thirteen years of that experience in her present school system. Her primary income would be her salary of \$25,641 and her spouse would have a salary of \$25,313. She would teach in a community with a median population of 10,000.

The profile of the teacher engaged in supplementary income activities would be a married male who is forty years old and would support one child under eighteen but no other dependents. He would hold a Bachelor's Degree and have additional college credits. The individual would be a certified secondary classroom teacher spending most of this time in a secondary classroom. This teacher would have fifteen years of teaching experience with thirteen of those in the present school system. His primary income would be his salary of \$25,248 and his spouse would earn a salary of \$17,883. He would teach in a community with a median population of 12,000.

The areas of significant differences between teachers who did not and teachers who did engage in supplementary income activities included the following: sex; age; number of dependent children under eighteen; types of certification in the areas of elementary, junior high/middle school, and secondary; position of teachers; assigned level of teaching; salary as the primary income; and spouse's income.

Research question 2. What is the profile (personal and professional characteristics) of the teacher who is engaged in one supplementary income activity; of the teacher who is engaged in two supplementary income activities; and of the teacher who is engaged in three or more supplementary income activities; and what are the differences among the three? The statistics for this research question are found in tables 16 through 30.

The personal and professional characteristics included in the profiles were the same as those in the profiles of the teachers not engaged and engaged in supplementary income activities. These characteristics were sex, marital status, age, number of dependent children under the age of eighteen supported by the teacher, other dependents supported by the teacher, highest completed degree, type of teaching certificate, teaching position, level of teaching assigned a majority of time, total years taught, total years taught in present school system, salary, salary as primary income, spouse's income, and population of the community in which the teacher taught.

To determine which of the personal and professional characteristics were significantly different between the profiles of the teachers engaged in one supplementary income activity, the teachers engaged in two supplementary income activities, and the

teachers engaged in three or more supplementary income activities, the following null hypothesis was tested. The results of the statistical treatment of the data are reported below.

Null hypothesis 2. There are no significant differences between the profiles of the teachers who engage in one, two, or three or more supplementary income activities.

The sex of teachers engaged in one, two, and three or more supplementary income activities is shown in table 16.

Of those engaged in one activity, most (56.9 percent) were female. Of those engaged in two and three or more activities, most were male (57.8 percent and 70.1 percent).

To determine if a relationship existed between the sex of teachers engaged in one, two, or three or more supplementary income activities, a Chi Square test was performed. An examination of the data in table 16 showed that there was a statistically significant relationship at the .0001 level between the sex of teachers and being engaged in one, two, or three or more supplementary income activities. Significantly more females engaged in one activity than two or three or more activities. Also, significantly more males engaged in one supplementary income activity than engaged in two or three or more activities. Females were more likely to engage in one activity than males, but males were more likely to engage in two or three or more activities than females.

The data in table 17 show the marital status of the teachers engaged in one, two, or three or more supplementary income activities.

TABLE 16

COMPARISON OF SEX OF TEACHERS ENGAGED IN ONE, TWO, OR THREE
OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Sex	<u>Engaged in One Activity</u>			<u>Engaged in Two Activities</u>			<u>Engaged in Three or More Activities</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Female	145	56.9	66.0	49	42.2	22.5	26	29.9	11.8
Male	110	43.1	46.2	67	57.8	28.1	61	70.1	25.6

Chi Square = 21.00 with df = 2, $p < .0001$; N = 458

TABLE 17

COMPARISON OF MARITAL STATUS OF TEACHERS ENGAGED IN ONE, TWO,
OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Marital Status	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
Not Previously Married	35	13.7	22	19.0	11	12.6
Single, Previously Married	21	8.2	9	7.8	4	4.6
Married	196	76.9	83	71.6	72	82.8
Widowed	3	1.2	2	1.7	0	0

Chi Square = 5.21 with df = 6, $p > .05$; N = 458

The majority of teachers in each category were married: 76.9 percent of those engaged in one activity, 71.6 percent of those engaged in two activities, and 82.8 percent of those engaged in three or more activities.

To determine if a relationship existed between the marital status of teachers and being engaged in one, two, or three or more activities, a Chi Square test was performed. An examination of the data in table 17 showed that there was no significant relationship at the .05 level between the marital status of the teachers and being engaged in one, two, or three or more supplementary income activities.

The age categories of teachers engaged in one, two, or three or more supplementary income activities are shown in table 18.

The mean age of a teacher engaged in one activity was 40.8 with a median 41.0. The mean age of a teacher engaged in two activities was 37.5, the median 37.0. Of teachers engaged in three or more supplementary income activities, the mean age was 38.4 with a median of 38.0. There were twelve missing cases.

To determine if a relationship existed between the age of teachers and being engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 18 showed that there was a statistically significant relationship at the .01 level on the basis of age when compared to teachers engaged in one, two, or three or more supplementary income activities. Teachers who engaged in one supplementary income activity were significantly older than teachers who engaged in two or three or more activities.

TABLE 18

COMPARISON OF AGE OF TEACHERS ENGAGED IN ONE, TWO, OR
THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Age	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
20-24	6	2.4	8	6.9	4	4.7
25-29	28	11.2	17	14.7	10	11.6
30-34	26	10.4	21	18.1	10	11.6
35-39	47	18.8	24	20.6	28	32.6
40-44	61	24.4	14	12.1	13	15.1
45-49	33	13.2	22	19.1	13	15.1
50-54	33	13.2	7	6.0	6	7.0
55-59	10	4.0	3	2.6	2	2.3
	Mean	40.81	Mean	37.54	Mean	38.41
	Median	41.0	Median	37.0	Median	38.0

F ratio = 6.23 with $df = 2$ and 449, $p = .0021$; $N = 446$

Of the teachers engaged in one supplementary income activity, the mean number of dependent children under eighteen supported by the teacher was 1.0, the median 1.0. The mean number of children under eighteen supported by teachers engaged in two supplementary income activities was 1.2, the median 1.0. The mean for teachers engaged in three or more supplementary income activities was 1.4, the median 1.0. There was one missing case. These data are presented in table 19.

To determine if a relationship existed between the number of children under eighteen supported by the teachers and being engaged

TABLE 19

COMPARISON OF THE NUMBER OF DEPENDENT CHILDREN UNDER EIGHTEEN SUPPORTED BY TEACHERS ENGAGED IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Number of Children	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
0	114	44.9	47	40.5	29	33.3
1	48	18.9	22	19.0	16	18.4
2	59	23.2	27	23.3	21	24.1
3	26	10.2	16	13.8	15	17.2
4	6	2.4	3	2.6	3	3.4
5	0	0	0	0	3	3.4
6	0	0	1	.9	0	0
7	1	.4	0	0	0	0
	Mean	1.08	Mean	1.22	Mean	1.49
	Median	1.0	Median	1.0	Median	1.0

F ratio = 3.53 with $df = 2$ and 454, $p = .0301$; $N = 457$

in one, two, or three or more supplementary income activities, an analysis of variance was performed. The results of the statistical treatment were shown in table 19. An examination of the data in table 19 showed that there was a statistically significant relationship at the .05 level on the basis of the number of children under eighteen supported by the teachers engaged in one, two, or three or more supplementary income activities. Teachers who engaged in three or more activities had significantly more children under eighteen to support

than teachers who engaged in one supplementary income activity.

The data in table 20 show the other dependents supported by teachers.

TABLE 20
COMPARISON OF OTHER DEPENDENTS SUPPORTED BY TEACHERS
ENGAGED IN ONE, TWO, OR THREE OR MORE
SUPPLEMENTARY INCOME ACTIVITIES

Number of Other Dependents	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
0	181	71.5	86	74.1	56	65.1
1	57	22.5	25	21.6	27	31.0
2	12	4.7	4	3.4	1	1.1
3	3	1.2	1	.9	2	2.3
	Mean	.36	Mean	.31	Mean	.41
	Median	0	Median	0	Median	0

F ratio = .6031 with $df = 2$ and 452, $p = .5476$; $N = 455$

Of those engaged in one, two, and three or more supplementary income activities, the mean was less than one and the median 0. To determine the relationship between the other dependents supported by teachers engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 20 showed no statistically significant relationship at the .05 level between the number of other dependents supported by the teachers and being engaged in one, two, or three or more activities. There were three missing cases.

The population of the community in which teachers taught of those teachers engaged in one, two, or three or more supplementary income activities is shown in table 21.

TABLE 21

COMPARISON OF POPULATION OF COMMUNITY IN WHICH TEACHERS
TAUGHT AND BEING ENGAGED IN ONE, TWO, OR THREE OR
MORE SUPPLEMENTARY INCOME ACTIVITIES

Population	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
1- 999	26	11.2	14	13.1	13	15.7
1,000- 9,999	70	30.0	40	37.4	29	34.9
10,000-49,999	94	40.3	35	32.7	27	32.5
50,000-99,999	25	10.8	8	7.5	7	8.4
Over 100,000	18	7.7	10	9.4	7	8.4
	Mean	53,381	Mean	46,081	Mean	79,359
	Median	13,000	Median	8,000	Median	8,500

F ratio = .7892 with $df = 2$ and 420 , $p = .4549$; $N = 458$

The mean for teachers engaged in one supplementary income activity was 53,381, but the median was 13,000. For those engaged in two activities, the mean was 46,081, but the median was 8,000. The mean population for teachers engaged in three or more supplementary income activities was 79,359 with a median of 8,500.

To determine if a relationship existed between the population of the community in which teachers taught and being engaged in one, two, or three or more supplementary income activities, an analysis of

variance was performed. An examination of the data in table 21 showed no statistically significant relationship at the .05 level between the population of the community in which the teachers taught and being engaged in a number of extra activities.

The data in table 22 show the highest degree completed by teachers engaged in one, two, or three or more supplementary income activities. In each category, the highest percentage of teachers had a Bachelor's Degree plus additional college credits.

To determine if a relationship existed between the highest degree completed of teachers and being engaged in one, two, or three or more activities, a Chi Square test was performed. An examination of the data in table 22 showed that there was no significant relationship at the .05 level between the highest degree completed and being engaged in one, two, or three or more supplementary income activities.

The data in table 23 show a comparison of the types of teaching certificates held by teachers engaged in one, two, or three or more supplementary income activities.

The data in table 23 showed that teachers who engaged in one, two, or three or more supplementary income activities had more than one certification. However, most teachers who supplemented their income had secondary certification. For those engaged in one supplementary income activity, 50.6 percent had secondary certification; for those engaged in two supplementary income activities, 57.8 percent had secondary certification; and for those engaged in three or more activities, 59.8 percent had secondary certification.

TABLE 22

COMPARISON OF HIGHEST DEGREE COMPLETED OF TEACHERS ENGAGED IN ONE,
TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Type of Degree	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
Bachelor's Degree	14	5.5	12	10.3	9	10.3
Bachelor's Degree plus Additional College Credits	135	52.9	52	44.8	40	46.0
Master's Degree	26	10.2	15	12.9	7	8.0
Master's Degree plus Additional College Credits	74	29.0	32	27.6	24	27.6
Educational Specialist's Diploma or Sixth-Year Certificate	6	2.4	4	3.4	7	8.0
Doctoral Degree (Ed.D. or Ph.D.)	0	0	1	.9	0	0

Chi Square = 14.72 with df = 10, $p > .05$; N = 458

TABLE 23

COMPARISON OF THE TYPES OF TEACHING CERTIFICATE HELD BY TEACHERS ENGAGED
IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Type of Certificate	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
Elementary Certificate	113	44.3	39	33.6	27	31.0
No Elementary Certificate	142	55.7	77	66.4	60	68.9
Chi Square = 3.13 with df = 2, p > .05						
Junior High/Middle School Certificate	42	16.5	23	19.8	17	19.5
No Junior High/Middle School Certificate	213	83.6	93	80.2	70	80.5
Chi Square = 1.83 with df = 2, p > .05						
Secondary Certificate	129	50.6	67	57.8	52	59.8
No Secondary Certificate	126	49.4	49	42.2	35	40.2
Chi Square = 5.43 with df = 2, p > .05						
Other Certificates (e.g., special services, vocational, kindergarten)	72	28.2	44	37.9	25	28.7
No Other Certificates	183	71.8	12	62.1	62	71.2
Chi Square = 2.50 with df = 2, p > .05						

N = 458

To determine if a relationship existed between the types of teaching certificates held by teachers and being engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 23 showed that there was no significant relationship at the .05 level between the type of teaching certificates held by teachers and being engaged in one, two, or three or more supplementary income activities.

The data in table 24 compare the teaching positions--classroom teacher, teacher/administrator, specialist--of teachers engaged in one, two, or three or more supplementary income activities.

The majority of teachers who supplemented their income were classroom teachers. For those engaged in one activity, 78.8 percent were classroom teachers; for those engaged in two supplementary income activities, 74.1 percent were classroom teachers; and 78.2 percent of those engaged in three or more activities. A majority of the total sample of teachers (77.5 percent) were classroom teachers.

To determine if a relationship existed between the teaching position of teachers and being engaged in one, two, or three or more activities, a Chi Square test was performed. An examination of the data in table 24 showed no statistically significant relationship at the .05 level between teachers engaged in one, two, or three or more supplementary income activities and the teaching position of these teachers.

The current level of assignment the majority of time of the respondents is displayed in table 25.

Of teachers engaged in one supplementary income activity, the two main levels were elementary (36.9 percent) and senior high

TABLE 24

COMPARISON OF TEACHING POSITION OF TEACHERS ENGAGED IN ONE, TWO,
AND THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Type of Position	<u>Engaged in One Activity</u>		<u>Engaged in Two Activities</u>		<u>Engaged in Three or More Activities</u>	
	Number	Percent	Number	Percent	Number	Percent
Classroom Teacher	201	78.8	86	74.1	68	78.2
Teacher/Administrator	9	3.5	3	2.6	0	0
Specialist (e.g., reading teacher, counselor)	45	17.6	27	23.3	19	21.8

Chi Square = 4.79 with df = 4, $p > .05$; N = 458

TABLE 25

COMPARISON OF CURRENT ASSIGNMENT THE MAJORITY OF TIME OF TEACHERS ENGAGED
IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Level Assigned a Majority of Time	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
Elementary	94	36.9	30	25.9	25	28.7
Junior High/Middle School	44	17.3	24	20.7	23	26.4
Senior High	88	34.5	44	37.9	30	34.5
Multilevel	28	11.0	18	15.5	9	10.3
Other (e.g., Kindergarten)	1	.4	0	0	0	0

Chi Square = 8.94 with df = 8, $p > .05$; N = 457

(34.5 percent). Senior high with 37.9 percent, followed by elementary with 25.9 percent, were the two main levels of assignment of teachers engaged in two supplementary income activities. For teachers engaged in three or more activities, 34.5 percent were assigned the senior high level, 28.7 percent the elementary, and 26.4 percent at the junior high/middle school level. There was one missing case.

To determine if a relationship existed between the current assignment and being engaged in one, two, or three or more activities, a Chi Square test was performed. An examination of the data in table 25 showed no statistically significant relationship at the .05 level between the current assignment of teachers and being engaged in one, two, or three or more supplementary income activities.

The total years taught of teachers engaged in one, two, or three or more supplementary income activities ranged from 1 to 45 years. The mean years taught for teachers engaged in one activity was 16.5, the median 17.0. For teachers engaged in two activities, the mean years taught was 13.5, the median 13.0. The mean for teachers engaged in three or more activities was 14.4 and the median 14.0. There were two missing cases. The data are displayed in table 26.

To determine if a relationship existed between the total years the teachers taught of teachers engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 26 showed that there was a statistically significant relationship at the .01 level on the basis of total years taught when compared to teachers engaged in one, two, or three or more activities. Teachers engaged in one activity taught significantly more years than teachers engaged in two or three or more

TABLE 26

COMPARISON OF NUMBER OF TOTAL YEARS TAUGHT OF TEACHERS
ENGAGED IN ONE, TWO, OR THREE OR MORE
SUPPLEMENTARY INCOME ACTIVITIES

Total Years Taught	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
1-5	24	9.4	24	20.7	11	12.8
6-10	41	16.2	24	20.7	14	16.3
11-15	51	20.1	20	17.2	25	29.0
16-20	60	23.6	21	18.1	20	23.3
21-25	42	16.5	19	16.4	7	8.1
26-30	25	9.9	4	3.5	9	8.2
31-35	8	3.1	4	3.4	0	0
36-40	2	.8	0	0	0	0
41-45	1	.4	0	0	0	0
	Mean	16.5	Mean	13.5	Mean	14.4
	Median	17.0	Median	13.0	Median	14.0

F ratio = 6.11 with $df = 2$ and 453, $p = .0024$; $N = 456$

activities. Less experienced teachers were more likely to be engaged in two or three or more activities.

The data shown in table 27 compare the years taught in the present school system of teachers engaged in one, two, or three or more supplementary income activities.

The total years taught in the present school system ranged from 1 to 40. For teachers engaged in one activity, the mean number

TABLE 27

COMPARISON OF NUMBER OF TOTAL YEARS TAUGHT IN PRESENT SCHOOL SYSTEM OF TEACHERS
ENGAGED IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Years Taught in Present District	<u>Engaged in One Activity</u>		<u>Engaged in Two Activities</u>		<u>Engaged in Three or More Activities</u>	
	Number	Percent	Number	Percent	Number	Percent
1-5	43	16.9	34	29.3	20	23.0
6-10	48	18.9	20	17.3	17	19.5
11-15	62	24.4	22	18.9	22	25.3
16-20	68	26.8	26	22.4	17	19.6
21-25	21	8.3	11	9.5	7	8.0
26-30	8	3.1	2	1.7	4	4.6
31-35	3	1.2	1	.9	0	0
36-40	0	0	0	0	0	0
	Mean	13.3	Mean	11.6	Mean	12.0
	Median	14.0	Median	11.5	Median	12.0

F ratio = 2.39 with df = 2 and 454, p = .092; N = 456

of years was 13.3, the median 14.0. The mean for teachers engaged in two supplementary income activities was 11.6, the median 11.5. For teachers engaged in three or more activities, the mean was 12.0, the median 12.0. There were two missing cases.

To determine if a relationship existed between the total years taught in the present school system and being engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 27 showed no statistically significant relationship at the .05 level on the basis of years taught in the present school system when compared to teachers engaged in one, two, or three or more activities.

The salary comparison of teachers engaged in one, two, or three or more supplementary income activities is shown in table 28.

The salaries ranged from \$10,000 to \$49,999. For teachers engaged in one supplementary income activity, the mean salary was \$25,839, the median \$25,300. For those engaged in two activities, the mean salary was \$24,354, the median \$22,929. The mean salary for teachers engaged in three or more activities was \$24,722, the median \$24,400. There were two missing cases.

To determine if a relationship existed between the salary of teachers and being engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 28 showed a statistically significant relationship at the .05 level on the basis of salary when compared to teachers engaged in one, two, or three or more activities. Teachers engaged in one supplementary income activity had a significantly greater salary than teachers engaged in two or three or more

TABLE 28

COMPARISON OF SALARY FROM EMPLOYMENT IN PROFESSIONAL EDUCATION (NOT INCLUDING EXTRA PAY RECEIVED FOR ADDITIONAL SCHOOL DUTIES) OF TEACHERS ENGAGED IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Salary Intervals	Engaged in One Activity		Engaged in Two Activities		Engaged in Three or More Activities	
	Number	Percent	Number	Percent	Number	Percent
10,000-14,999	1	.4	0	0	1	1.1
15,000-19,999	41	16.2	33	28.4	17	19.6
20,000-24,999	65	25.7	30	25.9	29	33.3
25,000-29,999	70	27.7	29	25.0	23	26.5
30,000-34,999	63	24.9	20	17.3	13	14.9
35,000-39,999	12	4.7	3	2.5	4	4.6
40,000-49,999	1	.4	1	.9	0	0
	Mean	25,839	Mean	24,354	Mean	24,722
	Median	23,300	Median	22,929	Median	24,400

F ratio = 3.10 with $df = 2$ and 453, $p = .0457$; $N = 456$

supplementary income activities. Teachers engaged in two activities had the lowest salary. This may be explained by the fact that these teachers were also the youngest and were the least experienced.

The salary as primary income of teachers engaged in one, two, or three or more supplementary income activities is shown in table 29.

For teachers engaged in one, two, or three or more supplementary income activities, the teaching salary was the primary source of income. The percentage for teachers engaged in one supplementary income activity was 82.3 percent; for those engaged in two activities was 92.2 percent; and for those engaged in three or more activities, 95.4 percent. There was one missing case.

To determine if a relationship existed between teaching income as primary income and being engaged in one, two, or three or more supplementary income activities, a Chi Square test was performed. An examination of the data in table 29 showed a statistically significant relationship at the .001 level between teachers engaged in one, two, or three or more supplementary income activities and whether or not the teaching income was their primary income. The teaching salary was considered the primary income for most teachers engaged in one, two, or three or more supplementary income activities. The respondents who indicated that the teaching salary was not the primary income were more likely to engage in one activity than the respondents who indicated that the teaching salary was the primary income. The respondents who indicated that the teaching salary was the primary income were more likely to engage in two or three or more activities than respondents who indicated that the teaching salary was not the primary income.

TABLE 29

COMPARISON OF PROFESSIONAL EDUCATION SALARY AS PRIMARY INCOME OF TEACHERS
 ENGAGED IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Salary Primary Income	<u>Engaged in One Activity</u>			<u>Engaged in Two Activities</u>			<u>Engaged in Three or More Activities</u>		
	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent	Number	Row Percent	Column Percent
Yes	209	82.3	52.4	107	92.2	26.8	83	95.4	20.8
No	45	17.7	77.6	9	7.8	15.5	4	4.6	6.9

Chi Square = 13.47 with df = 2, $p < .01$; N = 457

A comparison of spouse's income is shown in table 30.

The spouses' income ranged from \$0 to \$79,999. The mean of spouses' salaries for teachers engaged in one activity was \$21,472, the median \$20,000. For teachers engaged in two activities, the mean was \$14,490, the median \$12,000. The mean for teachers engaged in three or more activities was \$12,529, the median \$10,000. There were 157 missing cases.

To determine if a relationship existed between the spouse's income of teachers engaged in one, two, or three or more supplementary income activities, an analysis of variance was performed. An examination of the data in table 30 showed that there was a statistically significant relationship at the .0001 level on the basis of spouse's salary when compared to being engaged in one, two, or three or more activities. Teachers who engaged in one activity had significantly greater spouse's incomes than teachers who engaged in two or three or more supplementary income activities.

The profiles consist of the characteristics most teachers engaged in one, two, or three or more supplementary income activities possessed. The mode is the statistic that is typically used as the measure of central tendency reported in the categorization of characteristics in the profiles. The profiles follow.

The profile of the teacher who engaged in one supplementary income activity would be a married female who is forty-one years old and would support one child under eighteen and no additional dependents. She would hold a Bachelor's Degree with additional college credits. The individual would be a certified secondary classroom teacher spending most of her time in an elementary or

TABLE 30

COMPARISON OF SPOUSE'S INCOME OF TEACHERS ENGAGED IN ONE, TWO, OR
THREE OR MORE SUPPLEMENTARY INCOME ACTIVITIES

Spouse's Income	<u>Engaged in One Activity</u>		<u>Engaged in Two Activities</u>		<u>Engaged in Three or More Activities</u>	
	Number	Percent	Number	Percent	Number	Percent
0- 9,999	34	20.5	34	46.6	31	47.7
10,000-19,999	43	25.9	12	16.4	15	23.1
20,000-29,999	43	25.9	22	30.2	16	24.6
30,000-39,999	27	16.3	1	1.3	3	4.6
40,000-49,999	13	7.8	1	1.3	0	0
50,000-59,999	3	1.8	2	2.7	0	0
60,000-69,999	2	1.2	1	1.4	0	0
70,000-79,999	1	.6	0	0	0	0
	Mean	21,472	Mean	14,490	Mean	12,529
	Median	20,000	Median	12,000	Median	10,000

F ratio = 15.72 with df = 2 and 301, p = .0001; N = 301

secondary classroom. This teacher would have taught a total of seventeen years with seventeen of those years in the present school system. She had a salary of \$25,839 and this salary was her primary income. Her spouse's salary was \$21,472 and she taught in a community with a median population of 13,000.

For the teacher who engaged in two supplementary income activities the profile would be a male who is married and thirty-eight years old. He would support one child under eighteen but no other dependents. This teacher would hold a Bachelor's Degree and have additional college credits. The individual would be a certified secondary classroom teacher and teach at the secondary level a majority of the time. This teacher would have taught for fourteen years with twelve of those years in the present school system. His salary was \$24,354--this was his primary income--and his spouse earned \$14,490. He taught in a community with a median population of 8,000.

The profile of the teacher who engaged in three or more supplementary income activities would be a married male who is thirty-eight years old and would support one child under eighteen but no additional dependents. This teacher would hold a Bachelor's Degree with additional college credits. He would be a certified secondary classroom teacher spending most of his teaching time in a secondary classroom. He would have taught fourteen years with twelve of those years in the present school system. His salary was \$24,772, with this salary his primary income, and his spouse earned \$12,529. He taught in a community with a median population of 8,500.

Significant differences included sex, age, number of dependent children under eighteen, total years taught, salary, salary as primary income, and spouse's income.

Research question 3. What is the proportion of teachers in the sample that engage in supplementary income activities? The data are reported in table 31.

TABLE 31

NUMBER AND PERCENT OF TEACHERS IN MINNESOTA WHO
ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Teacher	Number	Percent
Do not engage	234	33.8
Do engage	458	66.2
Professional education income	339	74.0
Second job (weekends and/or evenings)	122	26.6
Summer job	172	37.5
Self-employment	132	28.8

N = 692

Two-thirds of the respondents did engage in supplementary income activities while one-third did not. The data in table 31 also showed the types of supplementary income activities respondents were involved in and the number and percent of each. Teachers responded to more than one category so the number is greater than 458 and the percentage is greater than one hundred. More teachers who engaged in supplementary income activities were involved in professional education income activities than weekend and/or evening jobs, summer jobs, or self-employment.

Research question 4. What is the mean amount of time spent engaging in supplementary income activities among teachers in the sample who do engage in such activities? The data in table 32 show that the total mean was 17.5.

TABLE 32

MEAN AMOUNT OF TIME (HOURS/WEEK) TEACHERS ENGAGE
IN SUPPLEMENTARY INCOME ACTIVITIES

Type of Supplementary Income Activity	Mean Hours/Week	Total Mean
Weekend and/or Evening Job	10.5	
Summer Job	27.7	
Self-employment	14.3	17.5

To determine if a relationship existed between the amount of time spent engaging in supplementary income activities and the number of years teachers planned to continue in teaching, the following null hypothesis was developed.

Null hypothesis 3. There is no significant relationship between the number of years teachers plan to continue in teaching and the amount of time spent engaging in supplementary income activities.

To determine if a relationship existed between the number of years teachers planned to continue in teaching and the amount of time spent engaged in supplementary income activities, a Pearson product-moment correlation was performed. The results of the statistical treatment are presented in table 33.

TABLE 33

PEARSON CORRELATION COEFFICIENTS, NUMBER OF CASES, AND SIGNIFICANCE BETWEEN
THE YEARS TEACHERS PLAN TO CONTINUE IN TEACHING AND THE AMOUNT OF TIME
SPENT ENGAGING IN SUPPLEMENTARY INCOME ACTIVITIES

Years to Remain in Teaching	Hours/Week Spent on Job Weekends and Evenings	Hours/Week Spent during Summer Job	Hours/Week Spent with Self-employment or Family Business
1 Year	.0488 85 p=.329	-.0431 128 p=.314	.0609 295 p=.283
5 Years	-.0835 89 p=.218	-.0471 135 p=.294	-.0870 99 p=.196
Until Retirement	-.1496 103 p=.066	.0413 156 p=.304	-.1449 108 p=.067

An examination of the data in table 33 showed that there was no statistically significant relationship at the .05 level between the years teachers planned to continue teaching and the amount of time spent engaged in supplementary income activities. There is the possibility that the teachers indicating that they would remain in education until retirement would actually be in teaching less than five years. This is not considered to be a significant factor in the interpretation of the data since the sample was statistically proportionate by age.

Research question 5. What are the sources of other professional education income in excess of salary and the mean dollar amount from these income sources among teachers in the sample engaged in supplementary income activities?

The sources of professional education income, the number, percent, and mean dollar amount are presented in table 34.

The respondents checking the source "Other" generally had duties related to staff (department chairperson, AV coordinator, unit leader); students (lunch duty, driver's education, school patrol supervisor); or sports (sports announcer, scorekeeper, officiating). Many duties were associated with community and adult education. Most teachers were involved in other (29.0 percent) and coaching athletics (26.0 percent).

Research question 6. What are the sources of other income (rent, royalties, dividends, etc.) and the mean dollar amount from these income sources among teachers in the sample engaged in supplementary income activities? The data are presented in table 35.

TABLE 34

SOURCES OF OTHER PROFESSIONAL EDUCATION INCOME, NUMBER,
PERCENT OF TEACHERS ENGAGED IN THE ACTIVITY AND
MEAN DOLLAR AMOUNT FROM THESE SOURCES

Sources of Other Professional Education Income	Number	Percent
Music	23	5.0
Dramatics, debate, literary organizations	18	3.9
Social, moral, leadership, or guidance organizations	16	3.5
Special interest clubs	21	4.6
Summer school administration	4	.9
School bus driving	3	.7
Coaching athletics	119	26.0
School government, school service, and honor societies	14	3.1
Departmental clubs	19	4.1
Summer school teaching	68	14.8
District curriculum development	56	12.2
Other (e.g., community education, officiating, AV director)	133	29.0

\bar{X} Dollar Amount = \$1,734

TABLE 35

SOURCES OF OTHER INCOME, NUMBER, PERCENT, AND
MEAN DOLLAR AMOUNT FROM THESE SOURCES

Sources of Other Income	Number	Percent
Child Support	12	1.7
Royalties	8	1.2
Dividends and Interest	193	27.9
Oil or Gas Leases	15	2.2
Retirement or Pension	19	2.7
Insurance Benefits	8	1.2
Rental Property	59	8.5
Other	30	4.3

\bar{X} Dollar Amount = \$4,369

Of the teachers who received income from other sources (not including supplementary income activities), most received it from dividends and interest (27.9 percent).

Research question 7. What are the mean dollar amounts from the sources of supplementary income activities? The data are presented in table 36.

Most (74.0 percent) were involved in professional education income activities. However, the mean dollar amount received from these activities was the lowest. Self-employment presented the largest dollar amount of \$6,677.

TABLE 36

SOURCES OF SUPPLEMENTARY INCOME, NUMBER, PERCENT,
AND MEAN DOLLAR AMOUNT FROM THESE SOURCES

Sources of Supplementary Income	Number	Percent	Mean Dollar Amount
Professional Education Income	339	74.00	\$1,734
Evenings and/or Weekends	122	26.63	\$2,110
Summer Job(s)	172	37.55	\$1,941
Self-employment	132	28.82	\$6,677

Research question 8. What are the differences in professional development activities between teachers in the sample engaged in supplementary income activities and teachers in the sample not engaged in supplementary income activities? These differences are presented in table 37.

Of the teachers not engaged in supplementary income activities, 95.7 percent had taken advanced courses since their first teaching assignment as compared with 93.9 percent of those who engaged in supplementary income activities. There was one missing case. Of the respondents not engaged in supplementary income activities, 84.5 percent had attended summer school since their first teaching assignment as compared to 81.9 percent of the teachers who engaged in supplementary income activities. There was one missing case. Almost 33 percent of the teachers who did not engage in supplementary income activities did participate in professional organizations (other than MEA, NEA, MFT, AFT), whereas 36.2 percent of the teachers

TABLE 37

COMPARISON OF PROFESSIONAL DEVELOPMENT ACTIVITIES OF TEACHERS
ENGAGED AND NOT ENGAGED IN SUPPLEMENTARY INCOME ACTIVITIES

Professional Development Activity	Type of Teacher	
	Does Not Engage	Does Engage
Advanced Courses		
Number		
Yes	223	430
No	10	28
Percent		
Yes	95.7	93.9
No	4.3	6.1
Chi Square = 0.666 with df = 1, p > .05		
Summer School		
Number		
Yes	197	375
No	36	83
Percent		
Yes	84.5	81.9
No	15.5	18.1
Chi Square = 0.597 with df = 1, p > .05		
Other Professional Organizations		
Number		
Yes	76	165
No	157	291
Percent		
Yes	32.6	36.2
No	67.4	63.8
Chi Square = 0.712 with df = 1, p > .05		
Magazines		
Number		
Yes	95	199
No	137	254
Percent		
Yes	40.9	43.9
No	59.1	56.1
Chi Square = 0.441 with df = 1, p > .05		
Books		
Number		
Yes	157	288
No	76	168
Percent		
Yes	67.4	63.2
No	32.6	36.8
Chi Square = 1.025 with df = 1, p > .05 (Three missing cases)		

who engaged in supplementary income activities participated in professional organizations. There were three missing cases. Of teachers who were not engaged in supplementary income activities, 40.9 percent read professional magazines as compared with 43.5 percent of teachers who engaged in supplementary income activities. There were seven missing cases. The professional development activity of purchasing professional books in the past year was 67.4 percent for teachers not engaged in supplementary income activities and 63.2 percent for those who engaged in supplementary income activities. There were three missing cases.

To examine if a relationship existed between professional development activities and teachers engaged and not engaged in supplementary income activities, the following null hypothesis was developed.

Null hypothesis 4. There are no significant differences in professional development activities between teachers not engaged in supplementary income activities and teachers engaged in supplementary income activities.

To determine if a relationship existed between professional development activities and being engaged in supplementary income activities, a Chi Square test was performed. An examination of the data in table 37 showed that there was no statistically significant relationship at the .05 level between being engaged in supplementary income activities and involvement in professional development activities.

Research question 9. What are the differences in professional development activities between teachers in the sample engaged in one

supplementary income activity, teachers in the sample engaged in two supplementary income activities, and teachers in the sample engaged in three supplementary income activities? The data are presented in table 38.

Of the teachers engaged in one supplementary income activity, 96.5 percent had taken advanced courses since their first teaching assignment, as compared with 90.5 percent for teachers engaged in two supplementary income activities and 90.8 percent for those engaged in three or more activities. In the professional development area of attending summer school since the first teaching assignment, 85.5 percent of teachers engaged in one activity, 79.3 percent of teachers engaged in two activities, and 75.9 percent of teachers engaged in three or more supplementary income activities had attended summer school. Thirty-six percent of teachers engaged in one supplementary income activity, 33.6 percent of the teachers engaged in two supplementary income activities, and 39.5 percent of the teachers engaged in three or more supplementary income activities participated in professional organizations other than MEA, NEA, AFT, or MFT. There were two missing cases. Of the teachers involved in one activity, 45.8 percent read professional magazines, 35.3 percent of those engaged in two supplementary income activities, and 50.0 percent of those involved in three or more supplementary income activities read professional magazines. There were five missing cases. Of the teachers engaged in one supplementary income activity, 62.8 percent purchased professional books in the past year, 59.5 percent of the teachers engaged in two supplementary income activities, and 69.0 percent of the teachers engaged in three or more supplementary income activities purchased

TABLE 38

COMPARISON OF PROFESSIONAL DEVELOPMENT ACTIVITIES OF TEACHERS
ENGAGED IN ONE, TWO, OR THREE OR MORE SUPPLEMENTARY
INCOME ACTIVITIES

Professional Development Activity	Engaged in One	Type of Teacher	
		Engaged in Two	Engaged in Three or More
Advanced Courses			
Number			
Yes	246	105	79
No	9	11	8
Percent			
Yes	96.5	90.5	90.8
No	3.5	9.5	9.2
Chi Square = 6.70 with df = 2, p < .05			
Summer School			
Number			
Yes	217	92	66
No	38	24	21
Percent			
Yes	85.1	79.3	75.9
No	14.9	20.7	24.1
Chi Square = 4.41 with df = 2, p > .05			
Professional Organizations			
Number			
Yes	92	39	32
No	162	77	52
Percent			
Yes	36.2	33.6	39.5
No	63.8	66.4	60.5
Chi Square = 0.74 with df = 2, p > .05			
Magazines			
Number			
Yes	116	41	42
No	137	75	42
Percent			
Yes	45.8	35.3	50.0
No	54.2	64.7	50.0
Chi Square = 5.10 with df = 2, p > .05			
Books			
Number			
Yes	159	69	60
No	94	47	27
Percent			
Yes	62.8	59.5	69.0
No	37.2	40.5	31.0
Chi Square = 1.94 with df = 2, p > .05			

professional books in the past year.

To examine if a relationship existed between professional development activities and teachers engaged in one, two, or three or more supplementary income activities, the following null hypothesis was developed.

Null hypothesis 5. There are no significant differences in professional development activities between teachers engaged in one supplementary income activity, teachers engaged in two supplementary income activities, and teachers engaged in three or more supplementary income activities.

To determine if a relationship existed between professional development activities and being engaged in one, two, or three or more supplementary income activities, a Chi Square test was performed. The statistical results are shown in table 38.

An examination of the data in table 38 showed that there was a statistically significant relationship in taking advanced courses of teachers engaged in one, two, or three or more supplementary income activities at the .05 level. A significantly greater percentage of teachers engaged in one supplementary income activity took advanced courses since their first teaching assignment than teachers engaged in two or three or more supplementary income activities. In the professional development areas of summer school, professional organizations, magazines, and books, there were no statistical significant differences at the .05 level.

To determine if a relationship existed between the position of the teacher (classroom teacher, teacher/administrator, specialist) and professional development activities, the following null hypothesis was

developed.

Null hypothesis 6. There is no significant relationship between the position of the teacher and the professional development activities in which the teacher engaged.

To determine if a relationship existed between the position of the teacher and the professional development activities in which the teacher engaged, a Chi Square test was performed. The results of the statistical treatment are presented in table 39.

An examination of the data in table 39 showed there was a statistically significant relationship at the .001 level between position of the teacher and membership in professional organizations other than MEA, NEA, MFT, and AFT. Of the respondents that were classroom teachers, 31.3 percent belonged to professional organizations; whereas 63.2 percent of the teacher/administrators and 43.9 percent of the specialists belonged to professional organizations. There was not a statistical relationship with the other professional development activities. There were two missing cases in the area of advanced courses, two missing cases in the area of summer school, four missing cases in the area of professional organizations, eight missing cases in the area of professional magazines, and four missing cases in the area of books purchased.

To determine if a relationship existed between the age of the teacher and professional development activities, the following null hypothesis was developed.

Null hypothesis 7. There is no significant relationship between the age of the teacher and the professional development activities in which the teacher engaged.

TABLE 39

CHI SQUARE TEST FOR SIGNIFICANT DIFFERENCES OF POSITION OF
TEACHER AND PROFESSIONAL DEVELOPMENT ACTIVITIES

Professional Development Activity	Classroom Teacher		Position of Teacher Teacher/Administrator		Specialist	
	Number	Percent	Number	Percent	Number	Percent
Advanced/Extension Courses						
Yes	486	94.2	19	100.0	147	94.8
No	30	5.8	0	0	8	5.2
Chi Square = 1.23 with df = 2, p > .05						
Summer School						
Yes	425	82.4	16	84.2	131	84.5
No	91	17.6	3	15.8	24	15.5
Chi Square = 0.41 with df = 2, p > .05						
Professional Organizations						
Yes	161	31.3	12	63.2	68	43.9
No	353	68.7	7	36.8	87	56.1
Chi Square = 15.03 with df = 2, p < .01						
Professional Magazines						
Yes	218	42.6	12	63.2	64	41.8
No	294	57.4	7	36.8	89	58.2
Chi Square = 3.27 with df = 2, p > .05						
Professional Books						
Yes	323	62.8	15	79.0	107	69.0
No	191	37.2	4	21.0	48	31.0
Chi Square = 3.73 with df = 2, p > .05						

To determine if a relationship existed between the age of the teacher and the professional development activities the teacher engaged in, a t-test was performed. The results of the statistical treatment are presented in table 40.

An examination of the data in table 40 showed that there was a statistically significant relationship at the .001 level between age and advanced professional or extension courses taken since the first teaching assignment. The data indicated that teachers who had taken courses were older than teachers who had not taken courses. An examination of the data also showed that there was a statistically significant relationship at the .0001 level between age and summer school attendance since the first teaching assignment. The data indicated that teachers who had attended summer school since their first teaching assignment were older than teachers who had not attended summer school since their first teaching assignment. There was also a significant relationship at the .01 level between age and belonging to a professional teacher organization other than MEA, NEA, MFT, or AFT. The data indicated that teachers who belonged to professional organizations were older than teachers who did not belong to professional organizations. There was no statistically significant relationship at the .05 level between age and subscribing to professional magazines. There was a statistically significant difference at the .05 level between age and purchasing professional books during the current school year. The data indicated that teachers who bought professional books were younger than teachers who did not purchase professional books.

TABLE 40

t-TEST FOR SIGNIFICANCE BETWEEN AGE AND PROFESSIONAL
DEVELOPMENT ACTIVITIES

Professional Development Activity	N	\bar{X}	SD	<u>t</u>	df	p
Taken Advanced Professional or Extension Courses Since First Teaching Assignment						
Yes	642	41.27	8.97	8.25	678	0.0001
No	38	28.94	8.59			
Attended Summer School Since First Teaching Assignment						
Yes	562	41.89	8.89	8.32	678	0.0001
No	118	34.35	9.18			
Belong to a Professional Teacher Organization Other than MEA, NEA, MFT, or AFT						
Yes	235	41.94	9.351	2.81	676	0.005
No	443	39.83	9.340			
Subscribes to Professional (Teaching) Magazines						
Yes	290	40.37	9.45	-0.46	672	0.647
No	384	40.70	9.28			
Purchase Any Professional Books During Current School Year						
Yes	436	39.99	9.196	-2.10	676	0.037
No	242	41.57	9.65			

Research question 10. What are the perceived reasons for participating in supplementary income activities among teachers in the sample engaged in these activities? The data are presented in table 41.

The directions on the survey asked the respondents to rank the reasons for participating in supplementary income activities. However, numerous respondents checked rather than ranked the reasons. Therefore, the analysis is more accurate in reporting both types of responses. Of the respondents who checked the reasons, the three most frequent responses were to improve living standard (50 responses), to pay monthly bills (38 responses), and personal stimulation (35 responses). Of the respondents who ranked the reasons, the three most frequent responses were to improve living standard (132 responses), to pay monthly bills (113 responses), and personal stimulation (73 responses).

Research question 11. What are the perceived reasons for participating in supplementary income activities among teachers in the sample engaged in one, two, or three or more supplementary income activities? The data are presented in tables 42-44.

An examination of the data in table 42 showed that of the respondents engaged in one supplementary income activity who checked the reasons, the three most frequent responses were to improve living standard (23 responses), other (19 responses), and personal stimulation (18 responses). Of the respondents who ranked the reasons, the three most frequent responses were to improve living standard (50 responses), to pay monthly bills (28 responses), and personal stimulation (26 responses).

The data in table 43 present the data of respondents engaging in two supplementary income activities.

TABLE 41

PERCEIVED REASONS FOR PARTICIPATING IN SUPPLEMENTARY INCOME
ACTIVITIES AMONG TEACHERS ENGAGED IN THESE ACTIVITIES

Perceived Reasons	Checked Reason		Ranking	Ranked Reason	
	Number	Percent		Number	Percent
Pay monthly bills					
Yes	38	8.3	1	73	58.4
No	420	91.7	2	27	21.6
			3	13	10.4
Improve living standard					
Yes	50	10.9	1	55	38.2
No	408	89.1	2	52	36.1
			3	25	17.4
Pursuit of secondary work interest/hobby					
Yes	24	5.2	1	24	32.9
No	434	74.8	2	22	30.1
			3	12	16.4
Personal stimulation					
Yes	35	7.6	1	22	24.2
No	423	92.4	2	31	34.1
			3	20	22.0
Pay long-term debts					
Yes	14	3.1	1	11	17.5
No	444	96.9	2	30	47.6
			3	11	17.5
Other					
Yes	31	6.8	1	10	37.0
No	426	93.2	2	6	22.2
			3	7	25.9
Diversion from teaching					
Yes	19	4.1	1	7	10.8
No	439	98.9	2	16	24.6
			3	23	35.4
Finance future education					
Yes	19	4.1	1	5	11.9
No	439	95.8	2	11	26.2
			3	11	26.2
Preparation to leave teaching					
Yes	15	3.3	1	5	14.7
No	443	96.7	2	4	11.8
			3	9	26.5
A financial emergency					
Yes	5	1.1	1	1	9.1
No	453	98.9	2	2	18.2
			3	4	36.4

TABLE 42

COMPARISON OF THE PERCEIVED REASONS FOR ENGAGING IN INCOME
ACTIVITIES AMONG TEACHERS WHO ENGAGED IN ONE ACTIVITY

Perceived Reasons	<u>Checked Reason</u>		Ranking	<u>Ranked Reason</u>	
	Number	Percent		Number	Percent
Improve living standard					
Yes	23	9.0	1	24	43.6
No	232	91.0	2	21	38.2
			3	5	9.1
Pay monthly bills					
Yes	12	4.7	1	19	45.2
No	243	95.3	2	12	28.6
			3	7	16.7
Personal stimulation					
Yes	18	7.1	1	7	23.3
No	237	92.9	2	11	36.7
			3	8	26.7
Pursuit of secondary work interest/hobby					
Yes	11	4.3	1	7	41.2
No	244	95.7	2	5	29.4
			3	3	17.6
Other					
Yes	19	7.5	1	7	46.7
No	236	92.5	2	2	13.3
			3	4	26.7
Pay long-term debts					
Yes	3	1.2	1	5	29.4
No	252	92.5	2	4	23.5
			3	4	23.5
Diversion from teaching					
Yes	8	3.1	1	3	13.6
No	247	96.9	2	6	27.3
			3	9	40.9
Preparation to leave teaching					
Yes	4	1.6	1	2	25.0
No	251	98.4	2	2	25.0
			3	1	12.5
Finance future education					
Yes	10	3.9	1	1	6.7
No	245	96.1	2	6	40.0
			3	4	26.7
A financial emergency					
Yes	3	1.2	1	0	0.0
No	252	98.8	2	0	0.0
			3	0	0.0

TABLE 43

COMPARISON OF THE PERCEIVED REASONS FOR ENGAGING IN SUPPLEMENTARY
INCOME ACTIVITIES AMONG TEACHERS WHO ENGAGED IN TWO ACTIVITIES

Perceived Reasons	Checked Reason		Ranking	Ranked Reason	
	Number	Percent		Number	Percent
Pay monthly bills					
Yes	14	12.1	1	28	66.7
No	102	87.9	2	6	14.3
			3	3	7.1
Improve living standard					
Yes	15	12.9	1	16	31.4
No	101	87.1	2	21	41.2
			3	12	23.5
Pursuit of secondary work interest/hobby					
Yes	7	6.0	1	13	46.4
No	109	94.0	2	10	35.7
			3	2	7.1
Personal stimulation					
Yes	9	7.8	1	8	25.8
No	107	92.2	2	13	41.9
			3	5	16.1
Finance future education					
Yes	4	3.4	1	4	33.3
No	112	96.6	2	2	16.7
			3	1	8.3
Pay long-term debts					
Yes	4	3.4	1	2	8.7
No	112	96.6	2	13	56.5
			3	5	21.7
Diversion from teaching					
Yes	7	6.0	1	2	10.0
No	109	94.0	2	4	20.0
			3	10	50.0
Preparation to leave teaching					
Yes	3	2.6	1	2	20.0
No	113	97.5	2	1	10.0
			3	2	20.0
A financial emergency					
Yes	0	0.0	1	1	33.3
No	116	100.0	2	0	0.0
			3	2	66.7
Other					
Yes	8	6.9	1	0	0.0
No	108	93.1	2	2	40.0
			3	1	20.0

Of the respondents who checked the reasons, the three most frequent responses for engaging in these activities were to improve living standard (15 responses), to pay monthly bills (14 responses), and personal stimulation (9 responses). Of the respondents who ranked the reasons, the three most frequent responses were to improve living standard (49 responses), to pay monthly bills (37 responses), and pursuit of a secondary work interest/hobby (25 responses).

The data in table 44 present the reasons for engaging in supplementary income activities of teachers who engaged in three or more activities.

Of the respondents who checked the reasons, the three most frequent responses were to pay monthly bills (12 responses) and to improve living standard (12 responses), personal stimulation and preparation to leave teaching (8 responses), and to pay long-term debts (7 responses). Of the respondents who ranked the reasons, the three most frequent responses were to pay monthly bills (38 responses), to improve living standard (33 responses), and personal stimulation (21 responses).

Research question 12. What do teachers in the sample perceive to be the effects of engaging in supplementary income activities on the quality of teachers and teaching? The data are presented in table 45.

A majority of the teachers who engaged in supplementary income activities indicated that engaging in these activities did not affect inservice seminars/workshops (58.4 percent), teaching preparation (54.4 percent), and teaching performance (53.3 percent). A majority of teachers who engaged in supplementary income activities indicated that reading and private study (58.4 percent), family and social life

TABLE 44

COMPARISON OF PERCEIVED REASONS FOR ENGAGING IN SUPPLEMENTARY INCOME ACTIVITIES AMONG TEACHERS WHO ENGAGED IN THREE OR MORE ACTIVITIES

Perceived Reasons	Checked Reason		Ranking	Ranked Reason	
	Number	Percent		Number	Percent
Pay monthly bills					
Yes	12	13.8	1	26	63.4
No	75	86.2	2	9	22.0
			3	3	7.3
Improve living standard					
Yes	12	13.8	1	15	39.5
No	75	86.2	2	10	26.3
			3	8	21.1
Personal stimulation					
Yes	8	9.2	1	7	23.3
No	79	90.0	2	7	23.3
			3	7	23.3
Pursuit of secondary work interest/hobby					
Yes	6	6.9	1	4	14.3
No	81	93.1	2	7	25.0
			3	7	25.0
Pay long-term debts					
Yes	7	8.0	1	4	17.4
No	80	91.9	2	13	56.5
			3	2	8.7
Other					
Yes	4	4.6	1	3	42.9
No	83	95.4	2	2	28.6
			3	2	28.6
Diversion from teaching					
Yes	4	4.6	1	2	8.7
No	85	95.4	2	6	26.1
			3	4	17.4
Preparation to leave teaching					
Yes	8	9.2	1	1	6.3
No	79	90.8	2	1	6.3
			3	6	37.5
Finance future education					
Yes	5	5.7	1	0	0.0
No	82	94.2	2	3	20.0
			3	6	40.0
A financial emergency					
Yes	2	2.3	1	0	0.0
No	85	97.7	2	2	33.3
			3	2	33.3

TABLE 45

NUMBER AND PERCENT OF PERCEIVED EFFECTS OF ENGAGING IN SUPPLEMENTARY
INCOME ACTIVITIES ON THE QUALITY OF TEACHERS AND TEACHING

Category	Does Not Affect		Helps		Hinders	
	Number	Percent	Number	Percent	Number	Percent
Teaching performance	194	53.3	98	26.9	72	19.8
Teaching preparation	197	54.4	42	11.6	123	34.0
Reading and private study	114	32.5	32	9.1	205	58.4
Graduate study	157	45.9	14	4.1	171	50.0
Inservice seminars/workshops	202	58.4	30	8.7	114	32.9
Family and social life	100	27.5	58	15.9	206	56.6
Physical well-being	123	33.9	126	34.7	114	31.4

(56.6 percent), and graduate study (50.0 percent) were hindered by engaging in these activities. The area of physical well-being was almost evenly distributed between does not affect, helps, and hinders.

To determine if a relationship existed between the perceived effects of engaging in supplementary income activities on the perceived quality of teachers and teaching and the number of hours invested in the activity, the following null hypothesis was developed.

Null hypothesis 8. There is no significant relationship between the perceived effects of engaging in supplementary income activities on the perceived quality of teachers and teaching and the number of hours invested in the activity.

To determine if a relationship existed between the effects of engaging in supplementary income activities on the perceived quality of teachers and teaching and the number of hours invested in the activity, an analysis of variance and multiple classification analysis were performed. The results of the statistical treatment are presented in table 46.

An examination of the data in table 46 showed that there was a statistical relationship at the .001 level between teaching preparation and the mean number of hours/week invested in the evening and/or weekend job(s). There was also a statistical relationship at the .05 level between teaching preparation and the mean number of hours/week invested in the summer job(s); reading and private study and the mean number of hours/week invested in the evening and/or weekend job(s); also, inservice seminars/workshops and the mean number of hours/week invested in summer job(s); family and social life and the mean number of hours/week invested in the evening and/or weekend job(s); physical

TABLE 46

ANALYSIS OF VARIANCE AND MULTIPLE CLASSIFICATION ANALYSIS OF THE PERCEIVED EFFECTS OF ENGAGING
IN SUPPLEMENTARY INCOME ACTIVITIES ON THE QUALITY OF TEACHERS AND TEACHING
AND THE MEAN NUMBER OF HOURS INVESTED IN THE ACTIVITY

Perceived Effects	Mean Hours/Week Evenings and/or Weekends (122 Respondents)	Mean Hours/Week Summer Job(s) (172 Respondents)	Mean Hours/Week Self-Employment or Family Businesses (132 Respondents)
	(Does Not/Helps/Hinders) Affect	(Does Not/Helps/Hinders) Affect	(Does Not/Helps/Hinders) Affect
Teaching Performance N = 364	2.60/3.04/4.22 R=.095 p=.192	10.91/11.62/12.85 R=.043 p=.721	4.59/3.86/3.88 R=.04 p=.748
Teaching Preparation N = 362	1.93/3.33/4.85 R=.203 p=.001	9.11/12.69/14.90 R=.154 p=.013	4.57/2.48/4.41 R=.072 p=.390
Reading and Private Study N = 351	1.94/4.78/3.71 R=.141 p=.030	10.76/10.16/12.79 R=.061 p=.519	4.57/3.59/4.11 R=.032 p=.834
Graduate Study N = 342	2.74/6.14/3.49 R=.106 p=.149	9.78/9.50/14.15 R=.125 p=.070	3.96/0.71/4.31 R=.007 p=.305
Inservice Seminars/Workshops N = 346	2.72/4.57/3.68 R=.092 p=.236	9.81/13.97/15.54 R=.152 p=.018	4.51/1.67/4.09 R=.089 p=.252
Family and Social Life N = 364	1.82/2.05/3.98 R=.157 p=.011	8.13/12.10/13.25 R=.127 p=.054	2.86/5.62/4.41 R=.101 p=.154
Physical Well-being N = 363	2.01/3.38/4.17 R=.134 p=.039	10.26/14.89/9.95 R=.131 p=.045	2.59/5.62/4.53 R=.028 p=.140

well-being and the mean number of hours/week invested in the evening and/or weekend job(s) and the mean number of hours/week invested in the summer job(s). Further examination of the data showed that there was a statistical relationship between the mean number of hours/week invested in evening and/or weekend job(s) and teaching preparation ($p < .001$), reading and private study, family and social life, and physical well-being ($p < .05$). There also was a statistical relationship between the mean number of hours/week invested in summer job(s) and teaching preparation, inservice seminars/workshops, and physical well-being ($p < .05$). Therefore, in certain areas teachers who did engage in supplementary income activities felt that there was a perceived effect on the quality of teachers and teaching in the preceding areas.

Research question 13. What are the attitudes toward supplementary income activities among teachers in the sample engaging in these activities? The data are presented in table 47.

The majority (51.1 percent) found teaching and the supplementary income activities equally enjoyable. There were 104 missing cases.

To determine if a relationship existed between the attitudes toward supplementary income activities and teachers who engaged in one, two, or three or more supplementary income activities, the following null hypothesis was developed.

Null hypothesis 9. There is no significant relationship between the attitude toward supplementary income activities and the type of supplementary income activities in which the teacher engaged.

To determine if a relationship existed between the attitude toward supplementary income activities and the type of activities in

TABLE 47

ATTITUDES TOWARD SUPPLEMENTARY INCOME ACTIVITIES AMONG
TEACHERS ENGAGED IN THESE ACTIVITIES

Attitude	Number	Percent
Supplementary income activities more enjoyable than teaching	43	12.1
Teaching more enjoyable than supplementary income activities	130	36.7
Teaching and supplementary income activities equally enjoyable	181	51.1

N = 354

which the teachers engaged, a Chi Square test was performed. The results of the statistical treatment are presented in table 48.

An examination of the data in table 48 showed that there was no statistically significant relationship at the .05 level between the attitude toward supplementary income activities and the type of job in which the teachers engaged. There were 257 missing cases.

Additional Information

There were several questions on the questionnaire which did not lend themselves to a statistical treatment or were not directly used in the resolution of the research questions or null hypotheses. Many of these questions were ones in which teachers were requested to respond to open-ended questions. The responses to these questions were hand tallied and reported as follows.

Teachers were asked on the questionnaire to indicate the type or types of certification they held. One of the choices was "Other."

TABLE 48

CHI SQUARE TEST FOR SIGNIFICANT DIFFERENCES OF ATTITUDE TOWARD SUPPLEMENTARY INCOME
ACTIVITIES AND THE TYPE OF ACTIVITIES IN WHICH THE TEACHERS ENGAGED

Attitude	<u>Types of Supplementary Income Activities</u>							
	Professional Education Income		Evening and/or Weekend Job(s)		Summer Job(s)		Self-Employment or Family Businesses	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
I find it more enjoyable than teaching.	27	65.9	1	2.4	3	7.3	10	24.4
I find teaching more enjoyable than my supplementary job(s).	90	73.7	3	2.5	16	13.1	13	10.7
I find teaching and my supplementary job(s) equally enjoyable.	129	74.1	27	1.7	15	8.6	3	15.5
Not applicable.	74	75.5	13	13.2	6	6.1	5	5.1

Chi Square = 10.58 with df = 4, $p > .05$; N = 552

The most frequent response was special services with a total of 118 responses. Other types of certification included vocational (24 responses), K-12 (23 responses), kindergarten and preschool (18 responses), and music (12 responses). Low-frequency responses included reading, nurse, and driver's education.

In the area of professional education income (other than basic teaching salary), teachers were to respond to twelve categories in which they received additional income (Question 18). Of the respondents, 339 or 74 percent engaged in professional education income activities. One category was "Other," with a space for the teacher to explain the activity. The responses could be categorized into three main areas. Most responses (48 responses) were student related. These jobs included driver's education teacher, lunchroom supervisor, school patrol supervisor, and prom chairperson. Many responses (40 responses) were staff related. These jobs included department chairperson, AV coordinator, and unit leader. Some of the responses (14 responses) were sports related. These jobs included sports announcer, scorekeeper, and official. Also, there were many varied low-frequency jobs such as custodian and vocational supervisor.

Teachers were also asked to indicate what types of job(s) they held if they engaged in supplementary income activities on evenings and/or weekends in addition to their regular role as an educator (Question 21). Of the respondents, 122 or 26.6 percent worked at a second job or jobs on evenings and/or weekends. The job(s) held on evenings and/or weekends were as follows. Some jobs were related to sports (20 responses) such as official or open gym supervisor. Other jobs were related to sales (19 responses) including cashier, clerk, and

sales consultant. Some jobs related to music (18 responses) included organist, private piano teacher, and musician. Also, some jobs related to teaching (17 responses) included tutor, college teacher, and ceramics teacher. Six respondents listed as participating in the armed services. There were many low-frequency responses such as station attendant, janitor, waitress, store window decorator, bartender, painter, carpenter, babysitter, interpreter, tax preparer, nurse, optician, group-home activity director, and mayor.

Teachers were also asked to indicate the type of job(s) held if they received supplementary income from being engaged in a summer job or jobs (Question 25). Of the respondents, 172 or 37.5 percent held a summer job or jobs. Jobs held in the summer included jobs related to teaching (50 responses) with summer school as the most frequent type of teaching job with 33 responses. Many low-frequency types of summer school teaching included camp director, counselor, and swimming teacher. Jobs held in the summer that were sports related (14 responses) included coach, recreation director, and official. Some jobs were music related (10 responses). These jobs included organist, marching band director, and musician. A large number of respondents were engaged in low-frequency jobs such as design draftsman, semi-truck driver, clerk in city hall, caterer, computer operator, artist/sculptor, realtor, bookkeeper, secretary, waitress, janitor, sanitation worker, house painter, wood cutter, farmer, and state park guide.

Teachers that received supplementary income from being involved in self-employment or family businesses were asked to describe the nature of the business. Of the respondents, 132 or 28.8 percent were engaged in self-employment or family businesses. Most of the jobs were

farm related (46 responses) and retail related (28 responses). Many jobs involved the personal skills of the respondents such as piano teacher, instrumental repair, mason, and auto body repair. Many low-frequency jobs included a car wash owner, apartment house owner, and seasonal trailer court owner.

Teachers were asked to indicate sources of income other than from teaching and their supplementary income activities (Question 32). In the category of "Other," many low-frequency responses included stocks, inheritance, Social Security, legal settlement, foster parents, and veterans' compensation.

To determine the perceived reasons for being engaged in supplementary income activities, teachers were asked to rank a list of ten choices (all that applied) or indicate any other reason not on the list (Question 34). Many of the other reasons (22 responses) were personal--being engaged in supplementary income activities for a car, travel, or a new home. Fifteen of the responses were to finance their children's education. Twelve indicated the reason was to supplement the spouse, and nine indicated the reason was for retirement.

The professional development activities of teachers engaged and not engaged have been reported and compared; and the professional development activities of the teachers engaged in one, two, or three or more supplementary income activities have been reported and compared. So, the writer thought it might be interesting to look at the professional development activities of the group of respondents as a whole (Questions 35-41). When respondents were asked if they had taken any advanced professional or extension courses since their first teaching assignment, 653 or 94.4 percent indicated yes, 38 or 5.5 percent

indicated no, and there was one missing case. When the respondents were asked to indicate the year in which they last had taken advanced professional or extension courses, the median year was 1984 and teachers were most likely (mode) to take classes in 1984.

Respondents were asked to indicate if they had attended summer school since their first teaching assignment. Of the respondents, 572 or 82.7 percent indicated yes, 119 or 17.2 percent indicated no, and there was one missing case. Of the respondents who had attended summer school, the median year was 1981 and teachers were most likely (mode) to take classes in 1984.

Of the respondents, 241 or 38.8 percent belonged to professional teachers' organizations other than the unions, and 448 or 64.7 percent did not belong. There were three missing cases.

When teachers were asked if they subscribed to professional teaching magazines, 294 or 42.5 percent indicated yes, 391 or 56.5 percent indicated no. There were seven missing cases. They were also asked to specify the professional teaching magazines to which they subscribed. Their responses were varied and reflected the personal areas of teaching such as American Artist, Fine Woodworking, Family Computing, Instrumentalist, Journal of Home Ec, Journal of Curriculum Development, and the list went on and on. Some of the more popular responses included Instructor (27 responses), Learning (17 responses), School Days (13 responses), Music Education Journal (12 responses), and English Journal (12 responses).

Teachers were also asked if they had purchased any professional books during the current (1984-1985) school year. Of the respondents, 445 or 64.3 percent indicated yes, 244 or 35.3 percent indicated no,

and there were three missing cases. When asked how many books were purchased, the mean number of books was five and the median was three.

Teachers were asked the following question (Question 42): "What personal, professional, or cultural advantages have you substantially denied yourself or postponed because you felt that you could not or should not afford them?" (Check all that apply.) The following are the results of the question:

<u>Type of Advantage</u>	<u>Number</u>	<u>Percent</u>
None	111	16.0
Summer School	116	16.8
Extension Courses	77	11.1
Graduate Work	179	25.9
Professional Publications	99	14.3
Hobbies	214	30.9
Clothes	303	43.8
Travel	472	68.2
Vacation	313	45.2
College Education for Children	69	10.0
Entertain Guests	118	17.1
Marriage	11	1.6
Family	55	7.9
Theatre, Concerts, etc.	203	29.3
Books, Magazines, etc.	94	13.6
Automobile	260	37.6
Satisfactory Living Conditions	80	11.6
Other	41	5.9

Of the teachers who responded to the category of "Other," the most frequent responses were buying a house (17 responses), home improvements (6 responses), recreation activities and equipment (6 responses), and small luxuries (5 responses). Low-frequency responses included adoption, household help, giving to missions, and pilot's license.

Teachers were also asked to respond to a set of questions related to salary and being engaged in supplementary income activities (Questions 43-44a). They were asked, "What amount do you believe would

be an adequate teaching salary for a teacher with your qualifications?" The mean dollar amount was \$33,870 and the median was \$35,000. The teachers were then asked, "If the salary was raised to this amount, would you discontinue engaging in additional income activities?" Of the respondents, 36.3 percent indicated yes, 25.4 percent indicated no, and 38.3 percent indicated that the question was not applicable.

The respondents were then asked to explain their answers. Many of the responses were positive in nature:

"I enjoy coaching."

"I like to keep busy in the summer."

"I enjoy my outside work."

"A change is enjoyable."

"I like the chance to do something different."

"I enjoy the physical work."

However, many of the responses reflected a perceived financial need. The responses included:

"I am not doing other jobs for the fun of it, but rather for the economic need."

"I have small children at home and need to work part-time."

"I am spreading myself too thin by working two jobs."

The survey concluded with an open-ended question which allowed the teachers to add any comments. The comments were varied and numerous and reflected the feeling of enjoyment, the feeling of personal stimulation, the feeling of being financially frustrated, and the feeling that education would improve if teachers did not have to engage in supplementary income activities.

CHAPTER V

SUMMARY, CONCLUSIONS, DISCUSSION, AND RECOMMENDATIONS

Summary

Since colonial times, public school teachers have engaged in activities--commonly known as moonlighting--that supplement their income. This phenomenon has been primarily attributed to two factors--the perceived part-time nature of teaching and the perceived low salaries paid teachers.

It was the writer's belief that information gained regarding teachers' involvement in supplementary income activities and its effects would be helpful in gaining a perspective on recent criticism of the educational system. Such insights should assist educational leaders in future staff development and programming. This is important because it is from our educational system that tomorrow's leaders are developed.

There were five main purposes of the study. The purposes were:

1. To develop a personal and professional characteristics profile of the teacher in Minnesota who does not engage in supplementary income activities, the teacher who does engage in supplementary income activities, and to compare the differences.

2. To develop personal and professional characteristics profiles of the teachers in Minnesota who engage in one, two, or three or more supplementary income activities and to compare the differences.

3. To investigate the perceived need among teachers in Minnesota to engage in supplementary income activities.

4. To identify what Minnesota teachers perceive to be the reasons for engaging in supplementary income activities.

5. To examine what Minnesota teachers perceive to be the impact of engaging in supplementary income activities on teachers and teaching.

Research questions 1 and 2 and Null hypotheses 1 and 2 (stated in chapter 1) directly related to purposes one and two. The data in table 49 report the comparisons and significant differences in the profiles. As illustrated by table 49, the profiles of the teachers engaged and not engaged in supplementary income activities are almost "stereotypical." The respondents not engaged tended to be female elementary classroom teachers in which the spouses' incomes were greater than the teachers' salaries. The respondents engaged in supplementary income activities tended to be male secondary classroom teachers in which the teachers' salaries were greater than the spouses' incomes. It is reasonable that male secondary teachers would be more likely to engage in supplementary income activities, for it is at the secondary level that the majority of opportunities within the school are available. As the data revealed, there was not a significant relationship between the teacher's salaries and being engaged in supplementary income activities, but there was a significant relationship between spouse's income and being engaged in supplementary income activities. The combined mean income (teachers' salaries and spouses'

TABLE 49
COMPARISON OF PROFILES

	Not Engaged in Supplementary Income Activities	Engaged in Supplementary Income Activities	Engaged in One Supplementary Income Activities	Engaged in Two Supplementary Income Activities	Engaged in Three Supplementary Income Activities
Sex* **	Female	Male	Female	Male	Male
Age* **	$\bar{X} = 44$	$\bar{X} = 40$	$\bar{X} = 41$	$\bar{X} = 38$	$\bar{X} = 38$
Marital Status	Married	Married	Married	Married	Married
Number of Dependents under Eighteen to Support* **	$\bar{X} = .93$	$\bar{X} = 1.19$	$\bar{X} = 1.08$	$\bar{X} = 1.22$	$\bar{X} = 1.49$
Other Dependents to Support	$\bar{X} = .33$	$\bar{X} = .35$	$\bar{X} = .36$	$\bar{X} = .31$	$\bar{X} = .41$
Highest Completed Degree	Bach. Degree +	Bach. Degree +	Bach. Degree +	Bach. Degree +	Bach. Degree +
Certification*	Elementary	Secondary	Secondary	Secondary	Secondary
Position*	Classroom Teacher	Classroom Teacher	Classroom Teacher	Classroom Teacher	Classroom Teacher
Level Taught Majority of Time*	Elementary	Elem. 35.4% Sec. 32.5%	Elem. 36.9% Sec. 34.5%	Secondary	Secondary
Total Years Teaching Experience**	$\bar{X} = 16.6$	$\bar{X} = 15.3$	$\bar{X} = 16.5$	$\bar{X} = 13.5$	$\bar{X} = 14.4$
Years Taught in Present System	$\bar{X} = 13.4$	$\bar{X} = 12.6$	$\bar{X} = 13.3$	$\bar{X} = 11.6$	$\bar{X} = 12.0$
Salary**	$\bar{X} = \$24,641$	$\bar{X} = \$25,248$	$\bar{X} = \$25,839$	$\bar{X} = \$24,354$	$\bar{X} = \$24,723$
Primary Income* **	Yes	Yes	Yes	Yes	Yes
Spouse's Salary* **	$\bar{X} = \$25,313$	$\bar{X} = \$17,883$	$\bar{X} = \$21,473$	$\bar{X} = \$14,491$	$\bar{X} = \$12,529$
Population	Mdn. = 10,000	Mdn. = 12,000	Mdn. = 13,000	Mdn. = 8,000	Mdn. = 8,500

*Significant relationship between being engaged and not engaged in supplementary income activities.

**Significant relationship between being engaged in one, two, or three or more supplementary income activities.

incomes) of the teachers not engaged in supplementary income activities was \$49,954, whereas the combined mean income of teachers engaged in supplementary income activities was \$43,131.

Research questions 3, 4, 5, 6, and 7, as well as Null hypotheses 6 and 7 (presented in chapter 1), were also related to these two purposes. The data contributed information to the profile of the teachers who engaged in supplementary income activities as well as the total sample of respondents. The results showed that two-thirds of the total sample of teachers engaged in supplementary income activities and worked a mean of 17.5 hours/week. They generally engaged in professional education activities from which they received a mean dollar amount of \$1,735. These same teachers tended to receive additional income from dividends and interest.

Research questions 3 and 10 (presented in chapter 1) were related to the third purpose. It was the belief of the writer that the number of respondents who participated in supplementary income activities may indicate that there was a perceived need to participate in supplementary income activities. The results of the survey indicated that two-thirds of the respondents engaged in supplementary income activities.

Research question 10 was directly related to both the third and fourth purposes. The reasons for being engaged in supplementary income activities were identified as to pay monthly bills, to pay long-term debts, and to handle a financial emergency. These reasons indicated a financial need to engage in supplementary income activities. The following response categories also seemed to indicate a financial need: to improve living standard, to prepare to leave teaching, and to

finance future education. The next response categories appeared to indicate a personal need to engage in supplementary income activities: to finance future education, personal stimulation, pursuit of secondary work interest/hobby, diversion from teaching, and preparation to leave teaching. Of the respondents engaged in supplementary income activities, the three reasons with the most frequent responses were to improve living standard, to pay monthly bills, and personal stimulation. These responses may indicate that some teachers were engaged in supplementary income activities to meet a financial need, and others were engaged in these activities to meet a personal need.

Research questions 10 and 11 (presented in chapter 1) were related to the fourth purpose. The respondents were directed to respond to the applicable reasons for being engaged in supplementary income activities among the ten listed. The reasons that received the most frequent responses of all teachers engaged in supplementary income activities as well as teachers engaged in one, two, or three or more activities were to improve living standard, to pay monthly bills, personal stimulation, and other.

Research questions 8, 9, 12, and 13 and Null hypotheses 4, 5, 8, and 9 (presented in chapter 1) were related to the fifth purpose. One hypothesis was that there may have been a correlation between the number of years teachers planned to remain in teaching and the number of hours/week invested in the activity, for there was the possibility that the teaching commitment and being engaged in supplementary income activities could cause a burnout situation, or teachers were engaged in these activities as a result of burnout. Another hypothesis was that the teachers would be investing time and energy in the supplementary

income activities as a preparation for leaving teaching. However, the data analysis showed that there was no correlation between the number of years teachers planned to remain in teaching and the number of hours/week invested in the activity. An examination of the data pertinent to Research questions 10 and 11 showed that the reason preparation to leave teaching received very few responses. Thus, the impact of being engaged in supplementary income activities appeared to be minimal in this area.

Another way to think about the perceived impact of being engaged in supplementary income activities on teachers and teaching was to compare the professional development activities of the teachers engaged and not engaged as well as the teachers engaged in one, two, or three or more supplementary income activities. An analysis of the data showed that the professional development activities of the teachers engaged and not engaged in supplementary income activities were quite similar. Therefore, when being engaged or not engaged in supplementary income activities were compared, participating in professional development activities was not significantly impacted.

The differences in professional development activities of the three groups of teachers occurred only in the area of taking advanced or extension courses. More teachers engaged in one supplementary income activity took advanced or extension courses than teachers engaged in two or three or more supplementary income activities. In the other professional development areas of attending summer school, belonging to professional organizations, subscribing to professional magazines, and purchasing professional books, there were not significant differences. Therefore, being engaged in supplementary income

activities impacted only one area--taking advanced or extension courses--but did not impact the other professional development areas.

The perceived effects of being engaged in supplementary income activities provided another way to look at the impact of being engaged in these activities on teachers and teaching. A majority of the teachers who engaged in supplementary income activities indicated that being engaged in these activities did not affect inservice seminars/workshops, teaching preparation, and teaching performance. A majority of teachers who engaged in supplementary income activities indicated that reading and private study, family and social life, and graduate study were hindered by being engaged in supplementary income activities with physical well-being almost evenly distributed between does not affect, helps, and hinders.

When testing the relationship between the perceived effects and hours/week invested in the activity, the data showed that there was a significant relationship between teaching preparation and hours/week of the evening and/or weekend job(s) and summer job(s), reading and private study and hours/week of evening and/or weekend job(s), inservice seminars/workshops and hours/week of summer job(s), and family and social life and hours/week of evening and/or weekend job(s), and physical well-being and hours/week of evening and/or weekend job(s) and hours/week of summer job(s). The more hours invested in evening and/or summer job(s), the more likely teaching preparation, family and social life, and physical well-being were hindered and reading and private study was helped. The more hours invested in summer job(s), the more likely teaching preparation and inservice seminars/workshops were hindered and physical well-being was helped. Thus, there were several

effects of engaging in supplementary income activities on the quality of teaching and teachers.

Conclusions

The following conclusions are based on the statistical analysis of the data accumulated for this study. The conclusions follow the same order in which the research questions and null hypotheses were stated in chapter 1.

Research Question 1 and Null Hypothesis 1

1. Significantly more males than females engaged in supplementary income activities. One possible reason for this is that supplementary income activities related to education generally included athletic-related activities--coaching, line judge, etc. Of the teachers who engaged in supplementary income activities, 74 percent engaged in professional education income activities (table 31). Over 25 percent of the teachers engaged in professional education activities were involved in coaching athletics. Also, many of the activities included in the "Other" category were athletic related such as officiating and line judge. Coaching has traditionally been a male-dominated area. It is also reasonable to expect more males to engage in supplementary income activities because the female is still generally expected to be the "housekeeper"--to clean the house, cook the meals, care for the children. This value has been one that has been changing as more women have entered the labor force, but it still seems likely that women have more responsibilities in the home after school and weekends than men.

2. Teachers who did not engage in supplementary income activities were significantly older than teachers who did engage in

them. This difference may be accounted for by the fact that younger teachers generally make less money than older teachers. Also, older teachers are generally more established in such ways as having purchased a home, furnishings, etc. Another possible reason to explain the age difference is that younger teachers are more likely to have younger children to support, which may demand more family income or they may need to provide the total family income if the spouse is at home full-time or part-time caring for the children.

3. Teachers who did engage in supplementary income activities had more children under eighteen to support than teachers who did not engage in supplementary income activities. The younger age of the teachers would support the inferences offered in conclusion two.

4. The highest proportion of teachers engaged in supplementary income activities had secondary certification, and the lowest proportion of teachers engaged in activities had elementary certification. In recent times, elementary education has typically been an area dominated by females. This is consistent with the finding that women engaged in supplementary income activities less often than men. Also, opportunities for supplementary income activities in the school setting are often greater for junior high/middle school and secondary teachers as there are more extracurricular opportunities at these levels.

5. Significantly more teachers--classroom teachers, teacher/administrators, and specialists--engaged in supplementary income activities than did not engage. This finding would suggest that the position of the teacher was not a significant factor in determining if teachers did or did not engage in supplementary income activities.

Slightly fewer teachers who engaged in supplementary income activities were specialists. In a school setting, specialists often have large caseloads with nontypical students. The demands of their teaching assignment plus the nonteaching responsibilities such as testing, scoring, and staffings may demand more time and energy than required of classroom teachers.

6. Teachers most likely to engage in supplementary income activities were assigned the junior high/middle school, senior high, or multilevel levels the majority of the time. This is reasonable since generally there are more opportunities for additional activities at the junior high/middle school and secondary levels.

7. More teachers who indicated that the teaching salary was the primary income engaged in supplementary income activities than did not engage in supplementary income activities. Teachers who did not view the teaching income as the primary income may have another source of income such as rents, royalties, oil leases, etc. Also, teachers who did not view their salary as their primary income may have spouses who contribute substantially to the family income.

8. Spouses of teachers not engaged in supplementary income activities earned significantly more than spouses of teachers engaged in supplementary income activities. Since the spouses of teachers not engaged in supplementary income activities contributed more to the family income, it is reasonable that the combined income is great enough so that the teacher did not have to engage in supplementary income activities. Using the same rationale, it is reasonable that since the teachers who did engage in supplementary income activities were younger, had more children under eighteen to support, and their

spouses earned less money, those teachers did have to engage in supplementary income activities.

9. There was not a significant relationship between the marital status of the respondents and being engaged in supplementary income activities. Teachers who were engaged and teachers who were not engaged in supplementary income activities were likely to be married. This finding would suggest that married as well as single teachers perceive a similar need to be engaged in supplementary income activities. Married teachers may perceive a need to engage due to additional family responsibilities. Single teachers may perceive a need to engage in additional activities for financial or other reasons.

10. A significant relationship was not found between the number of other dependents supported by the teacher and being engaged in supplementary income activities. In our society, very few families are extended families--a circumstance which would explain this finding.

11. The majority of respondents had a Bachelor's Degree plus additional college credits. The absence of a significant relationship between the highest completed degree and being engaged in supplementary income activities would suggest that the involvement in extra activities and the amount of time involved in these extra activities are not sole factors in the decision not to obtain a higher degree, since teachers not engaged and teachers engaged in supplementary income activities had completed the same degree--the Bachelor's Degree plus additional college credits.

12. There was not a significant relationship between the number of total years taught and being engaged in supplementary income activities. There also was not a significant relationship between the

number of years taught in the present system and being engaged in supplementary income activities. The relationship between salary and being engaged in supplementary income activities was also not significant. These findings may indicate that since the number of total years taught and the number of years taught in the present school system are not significant, it is reasonable that there would not be a significant relationship between salary and being engaged in supplementary income activities, for salary is dependent on the number of years of teaching experience.

13. There was not a significant relationship between the size of the community and being engaged in supplementary income activities. This finding would suggest that the perceived need to engage in supplementary income activities is not dependent on the population of the school district.

Research Question 2 and
Null Hypothesis 2

14. More females engaged in one activity than engaged in two or three or more activities. Also, significantly more males engaged in two or three or more activities. Females were more likely to engage in one activity than males, but males were more likely to engage in two or three or more activities than females. Due to the family commitments and responsibilities of most women as compared with most men, it is reasonable that more men would engage in more of the supplementary income activities.

15. Teachers who engaged in one supplementary income activity were significantly older than teachers who engaged in two or three or more activities. Possible reasons why teachers who engaged in one

activity were older were that the family was more financially established, the spouse may earn more, and the family may have other sources that contribute to the family income. Therefore, older teachers would not have a need to engage in more than one activity.

16. Teachers who engaged in three or more activities had significantly more children under eighteen to support than teachers who engaged in one supplementary income activity. Teachers who engaged in three or more activities were significantly younger, which would support the finding that they would have more children under eighteen to support.

17. Teachers engaged in one activity taught significantly more years than teachers engaged in two or three or more activities. Since teachers who engaged in one supplementary income activity were significantly older than teachers who engaged in two or three or more activities, it is reasonable that they had taught more years.

18. Teachers engaged in one supplementary income activity had a significantly greater salary than teachers engaged in two or three or more activities. Teachers who engaged in one supplementary income activity were older and had taught more years, which would give them a higher teaching salary; thus, they would likely not need the income from more than one additional job.

19. The teaching salary was considered the primary income for most teachers engaged in one, two, or three or more supplementary income activities. The respondents who indicated that the teaching salary was not the primary income were more likely to engage in one activity than the respondents who indicated that the teaching salary was the primary income. The respondents who indicated that the teaching

salary was the primary income were more likely to engage in two or three or more activities than respondents who indicated that the teaching salary was not the primary income.

These results may suggest that teachers who indicated that the teaching salary was not the primary income may have other sources of other income such as rent or dividends and interest, may have larger teaching salaries or larger spouses' salaries. The teachers who indicated that the teaching salary was the primary income may not have sources of other income such as dividends and interest, may have smaller teaching salaries, or smaller spouses' salaries and need to rely on the income from the two or three additional activities.

20. Teachers who engaged in one activity had significantly greater spouses' income than teachers who engaged in two or three or more supplementary income activities. Teachers who engaged in one supplementary income activity were older and it is likely that the spouse was also older. Therefore, the spouse would have had more time to be established in a job and would have worked up the career ladder therefore also earning a higher salary.

21. There was not a significant relationship between marital status and being engaged in one, two, or three or more supplementary income activities. This finding would suggest that married and single teachers are similarly engaged in one, two, or three or more supplementary income activities. Married teachers may choose to engage in one or more activities for financial reasons due to the responsibilities of a wife and children. Single teachers may also perceive the need to engage for financial reasons since the single teacher would not have a spouse's income and may have extended family

obligations.

22. The number of other dependents supported by teachers was not significant when compared with being engaged in one, two, or three or more supplementary income activities. This would suggest that there was a correspondence between family size and the number of supplementary income activities.

23. A significant relationship was not found between the population of the community in which teachers taught and being engaged in one, two, or three or more supplementary income activities. This finding would suggest that the population of the community was not a significant factor in being engaged in one, two, or three or more supplementary income activities.

24. An examination of the data showed no significant relationship between the highest completed degree and being engaged in one, two, or three or more supplementary income activities. This finding would suggest that the time and energy required to engage in these activities were not the sole variables in influencing the decision to not obtain a higher degree.

25. There was no significant relationship between the variables of type of teaching certification, teaching position, and the level assigned to teach the majority of the time and being engaged in supplementary income activities. The findings may suggest that these variables may not be factors in the decision to engage in supplementary income activities.

26. A significant relationship was not found between the number of years the teachers taught in the present school system and being engaged in supplementary income activities. These findings would

suggest that teachers new to a school system and long-term teachers in a school system may both have financial needs that require supplementary income. Thus, tenure is apparently not a factor in reducing or promoting supplementary income activities.

Research Question 3

27. The big picture provided by the respondents in this study showed that 66.2 percent did engage in supplementary income activities and 33.8 percent did not engage in supplementary income activities. This finding would suggest that two-thirds of the teachers in this study perceived a need to engage in supplementary income activities for financial or personal reasons. This is a very high percentage of personnel from a professional field. It points to the fact that teachers' salaries are relatively low.

Research Question 4

28. An examination of the data revealed that the mean number of hours/week engaged in supplementary income activities was 17.5 hours. This would suggest that teachers are working almost sixty hours a week. This figure does not include the out-of-school hours needed to correct papers, calculate grades, and prepare lessons.

Null Hypothesis 3

29. An analysis of the data revealed no significant relationship between the number of years teachers planned to continue teaching and the amount of time spent engaged in supplementary income activities. Although teacher burnout has been an issue of concern in recent years, the extra hours teachers worked to supplement their incomes did not appear to have influenced longevity in the profession.

Research Question 5

30. When the sources of other professional education income were examined, the data revealed that more teachers participated in the area of "Other." An examination of the responses to the category of "Other" revealed three major areas--student related (lunchroom supervisor, driver's education instructor); staff related (AV director, unit leader, department chairperson); and sports related (official, line judge, etc.). The area that received the next greatest number of participants was coaching athletics. These findings suggest that teachers are involved in many activities, with coaching being one of the major areas of involvement.

Research Question 6

31. An examination of the data of other sources from which teachers received income revealed that most received extra income from dividends and interest. The small percentages of teachers receiving income from other sources suggest that teachers do not have many outside sources of income.

Research Question 7

32. The data revealed that of the four main sources of supplementary income--professional education income, evening and/or weekend job(s), summer job(s), and self-employment--the area of self-employment yielded the highest income (mean dollar amount) and professional education income yielded the least. This would suggest that although most teachers (74 percent) engaged in professional education income activities, this was the poorest way to earn extra money if just dollars earned is considered.

Research Question 8 and
Null Hypothesis 4

33. When professional development activities between teachers engaged and not engaged in supplementary income activities were compared, no significant relationship was found. This finding may indicate that the extra hours teachers invested in supplementary income activities did not detract from their motivation and energy to continue professional growth and development.

Research Question 9 and
Null Hypothesis 5

34. When professional development activities between teachers engaged in one, two, or three or more supplementary income activities were compared, there was a significant relationship in one area. Significantly more teachers engaged in one supplementary income activity took advanced or extension courses since their first teaching assignment than teachers engaged in two or three or more activities. There was not a significant relationship in the other professional development areas. This would suggest that being engaged in professional development activities may have a minimal effect on professional growth.

Null Hypothesis 6

35. There was a significant relationship between the position of teachers and professional development activities. The relationship existed between membership in professional development activities and classroom teachers and specialists. Significantly more classroom teachers did not belong to a professional organization other than MEA, NEA, MFT, and AFT than did belong; and significantly more of the specialists did belong to professional organizations than did not

belong. These data would suggest that the needs of classroom teachers may be perceived to be met through the teacher unions or through other ways. Or it may suggest that teachers do not perceive a need to belong to a professional organization or do not perceive it as a viable means for professional growth. The data also may suggest that specialists may perceive a need to belong to professional organizations. The union may not meet the needs of the specialists as well as the classroom teachers, or the professional organizations may have many professional activities specifically tailored to meet the needs of the specialists.

Null Hypothesis 7

36. When age was examined as a factor that contributed to teachers being engaged in professional development activities, statistical treatment of the data produced a significant difference. Teachers who had taken advanced professional or extension courses since their first teaching assignment were older than teachers who had not taken advanced professional or extension courses. Results were similar in the areas of attending summer school since the first teaching assignment and belonging to a professional organization other than MEA, NEA, MFT, or AFT. In these areas, teachers who engaged in these activities were older than teachers who did not engage in these activities. Teachers who were older may have had more time to participate in these professional development activities, so the results are reasonable.

The data also showed that teachers who bought professional books were younger than teachers who did not buy professional books. This

may indicate that younger teachers may have perceived a need for more educational expertise due to less experience.

Research Question 10

37. Of the respondents engaged in supplementary income activities, the three most frequent responses for perceived reasons for engaging in supplementary income activities were to improve living standard, to pay monthly bills, and personal stimulation. These results may suggest that the teachers perceived the teaching salary insufficient to provide an adequate standard of living and/or insufficient to pay monthly bills.

Research Question 11

38. Of the respondents engaged in one supplementary income activity, the reasons that received the most responses included to improve living standard, other, to pay monthly bills, and personal stimulation. Of the respondents engaged in two supplementary income activities, the reasons that received the most responses included to improve living standard, to pay monthly bills, pursuit of a secondary work interest/hobby, and personal stimulation. Of the respondents engaged in three or more supplementary income activities, the reasons that received the most responses included to pay monthly bills and to improve living standard. These results may suggest that the teachers engaged in three or more supplementary income activities may be engaged for financial reasons more than teachers engaged in one or two activities because the reason that received the most responses for teachers engaged in one or two activities was to improve living standard: the reason that received the most responses for teachers

engaged in three or more activities was to pay monthly bills.

Research Question 12

39. When teachers who engaged in supplementary income activities responded to the question of perceived effects of engaging in supplementary income activities on the quality of teachers and teaching, a majority of teachers indicated that teaching performance, teaching preparation, and inservice seminars/workshops were not affected. However, a majority indicated that reading and private study, graduate study, and family and social life were hindered by engaging in these activities. These views may indicate that the teachers who feel that their quality is hindered by engaging in supplementary income activities may have to judge if the problem is sufficient to discontinue engaging in the activities.

Null Hypothesis 8

40. When the relationship between the perceived effects and the number of hours invested in the activity was analyzed, a statistically significant relationship existed in several areas. A statistically significant relationship at the .001 level existed between teaching preparation and hours/week of evening and/or weekend job(s). Teachers who indicated that teaching preparation was not affected invested a mean of 1.93 hours/week in the activity, whereas teachers who indicated that teaching preparation was hindered invested 4.85 hours/week. Therefore, the more hours/week invested in an evening and/or weekend job(s), the more likely teaching preparation would be hindered. This result is reasonable since many teachers need evenings and weekends to prepare for their classes as the fifty-minute

preparation time during the school day may not be adequate.

A significant relationship at the .05 level existed between teaching preparation and hours/week invested in summer job(s). Teachers who indicated that teaching performance was not affected invested a mean of 9.11 hours/week, teachers who indicated that teaching preparation was helped invested a mean of 12.69 hours/week, and teachers who indicated that teaching preparation was hindered worked a mean of 14.90 hours/week. Thus, the more hours/week invested in the activity, the greater the perception that teaching preparation was hindered. It is possible that this investment of time could have interfered with preparation time for the coming school year.

A significant relationship at the .05 level existed between reading and private study and hours/week invested in evening and/or weekend job(s). Teachers who indicated that reading and private study was helped worked more hours (4.78) per week than teachers who indicated that reading and private study was hindered (3.71). Teachers who indicated that reading and private study was not affected worked the least number of hours (1.94). This is an interesting result. One possible explanation was that teachers who invested more time in evening and/or weekend job(s) were better time managers and thus set aside time for reading and private study.

A statistically significant relationship was found between inservice seminars/workshops and the hours/week invested in the summer job(s). Teachers who found their participation hindered worked a mean of 15.5 hours/week, whereas teachers who felt their participation was not affected worked a mean of 9.81 hours/week. Teachers who felt their participation was helped worked a mean of 13.97 hours/week. This

finding is reasonable since many teachers attend inservice seminars and workshops during the summer. The fact that teachers felt their participation was helped worked a mean of 13.97 hours/week may again suggest that those teachers find time to work and participate in seminars and workshops. It is also possible that these teachers may have felt better able to afford the seminars and workshops from the extra pay acquired from the summer job(s). These teachers also may have combined summer vacations and attendance at workshops. These educational activities may also have been used as a tax write-off.

A statistically significant relationship was found between family and social life and the mean hours/week invested in evening and/or weekend job(s). Teachers who indicated that family and social life was hindered worked significantly more hours/week (3.98) than teachers who indicated that family and social life was not affected (1.82 hours/week) or helped (2.05 hours/week). This finding is reasonable since in many families both spouses work and evenings and weekends are the only times for family time and socializing.

A statistically significant relationship was found between physical well-being and hours/week invested in evening and/or weekend job(s). Teachers who indicated that physical well-being was hindered worked significantly more hours (4.17 hours/week) than teachers who indicated that physical well-being was not affected (2.01 hours/week) or helped (3.38 hours/week). This result is reasonable since teaching all day is a physically and mentally demanding job and to work additional hours at another job would compound this fatigue. Along with the fatigue is the added stress from the time constraints and family problems that being engaged in evening and/or weekend job(s)

may cause.

A statistically significant relationship was also found between physical well-being and hours/week worked at a summer job(s). Teachers who worked more hours/week (14.89) felt their physical well-being was helped, whereas teachers who worked the least number of hours (9.95) felt their physical well-being was hindered. This finding would suggest that working in the summer enhances the physical well-being of teachers. This finding is reasonable since many of the summer jobs indicated by the teachers involved physical labor and/or a change of pace for the teachers.

Research Question 13

41. The majority of teachers who engaged in supplementary income activities responded that they found their teaching and supplementary income activities equally enjoyable. These results help explain the fact that teachers felt supplementary income activities did not hinder them in several ways but that their extra activities, even though perceived financially necessary to pay monthly bills, were enjoyable.

Null Hypothesis 9

42. When examining the relationship between attitude toward supplementary income activities and the type of activities teachers engaged in, there was not a significant relationship. This could indicate that whether teachers are engaged in professional education activities, evening and/or weekend job(s), summer job(s), or self-employment or family businesses, the majority appeared to find their teaching jobs and supplementary income activities equally enjoyable.

Discussion

Teaching is regarded as one of the four traditional professions. Now, as throughout the history of public education in America, teachers are engaged in supplementary income activities. The jobs in the colonial times were varied in nature, often civic or religious in nature, as well as menial. The results of this study showed that about two-thirds of the respondents were also engaged in a variety of supplementary income activities.

A review of the literature showed that teachers' salaries across the nation have not kept pace in recent years with the cost of living. As Festrizter (1983) indicated, "The real loss in purchasing power of average teacher salaries totaled 12.2 percent over the past ten years" (p. 46). The Carnegie Foundation for the Advancement of Teaching found that teachers' pay had fallen steadily behind the salaries of other white-collar jobs ("Teachers' Pay" 1983, p. 10). "Since 1973, the foundation said on August 23, inflation has reduced teachers' purchasing power in all but eight states" (p. 10). According to the Foundation's findings, the average teacher's salary in Minnesota in 1982-1983 was \$22,296 with a buying power reduction of 7 percent (p. 10).

In this study of a 3 percent (3%) sample of Minnesota teachers, 458 respondents or 66.2 percent did engage in supplementary income activities and 234 or 33.8 percent did not engage in supplementary income activities. Thus, about two-thirds of the respondents did engage in supplementary income activities.

Teachers who engaged in supplementary income activities responded that the two most frequent perceived reasons for engaging in supplementary income activities were to improve the living standard and to

pay monthly bills. In reviewing the reason to improve living standard, one could speculate that the respondents were engaged in supplementary income activities to reach a living standard that was better than adequate, or that the extra money from the activity was needed to obtain an adequate standard of living. In either case, the teaching salary was not perceived as adequate to provide the standard of living the respondent preferred.

The second perceived reason for engaging in supplementary income activities was to pay monthly bills. This response would indicate that the teaching salary was not adequate for the teacher to meet the general day-to-day financial obligations and without the supplementary income activity might be in financial difficulty.

These three factors--the evidence that salaries of teachers have recently not kept pace with the cost of living, the fact that about two-thirds of the sample did engage in supplementary income activities, and that the most frequent perceived reasons for engaging in supplementary income activities were to improve the living standard and to pay monthly bills--may substantiate the contention that the perceived need to engage in supplementary income activities is a real need.

An examination of the data showed that there was not a significant relationship between teachers' salaries and being engaged in supplementary income activities. The mean salary of teachers not engaged in supplementary income activities was \$25,641 and the mean salary of teachers engaged in supplementary income activities was \$25,248. However, there was a significant relationship between teachers' salaries and being engaged in one, two, or three or more supplementary income activities. The mean salary for teachers engaged

in one supplementary income activity was \$25,839; the mean salary for teachers engaged in two supplementary income activities was \$24,354; and the mean salary for teachers engaged in three or more supplementary income activities was \$24,722. As previously indicated, teachers engaged in two supplementary income activities were younger and less experienced than teachers engaged in one or three or more activities. Thus, salary may be a significant factor in the number of supplementary income activities in which teachers engaged.

When reviewing the data to determine how teachers responded to the perceived need for additional family income, an interesting factor was spouses' incomes. That is, the data showed that there was a significant relationship between spouses' salaries and being engaged in supplementary income activities. The mean salary of spouses of teachers not engaged in supplementary income activities was \$25,313; whereas the mean salary of spouses of teachers engaged in supplementary income activities was \$17,883. These data indicated that spouses' salaries may be a major factor in determining whether or not the family income was adequate and whether or not the teacher would need to engage in supplementary income activities.

In addition to spouses' income being significant when comparing teachers who did and did not engage in supplementary income activities, there was also a significant relationship between spouses' income and being engaged in one, two, or three or more supplementary income activities. The mean dollar amount of spouses of teachers engaged in one supplementary income activity was \$21,473; for spouses of teachers engaged in two supplementary income activities the mean dollar amount was \$14,491; and for spouses of teachers engaged in three or more

supplementary income activities the mean dollar amount was \$12,529. These data may again indicate that the spouses' salaries may be a major factor in determining the salary-supplementing activities of the teachers.

When comparing the profiles of teachers engaged and not engaged in supplementary income activities, the number of dependents under eighteen to support was significant. Teachers engaged in supplementary income activities had significantly more dependents under eighteen to support than teachers not engaged in supplementary income activities. When comparing the profiles of teachers engaged in one, two, or three or more activities, teachers engaged in three or more activities had significantly more dependents under eighteen to support. Therefore, when analyzing the profiles, it is reasonable that teachers who had smaller spouses' salaries and larger families to support would need to supplement their incomes more than teachers with greater spouses' salaries and smaller families. It is also reasonable that teachers who engaged in three or more supplementary income activities and had salaries and spouses' incomes that were significantly smaller and families that were larger would have a greater need to be engaged in more supplementary income activities than teachers with greater spouses' incomes and smaller families and perceived the need to engage in only one supplementary income activity.

When teachers were asked to respond to the question, "What amount do you believe would be an adequate teaching salary for a teacher with your qualifications?," the mean dollar amount was \$33,869 and the median was \$35,000. When asked, "If the salary was raised to this amount, would you discontinue engaging in additional income activities?,"

36.3 percent indicated yes, 25.4 percent indicated no, and 38.3 percent indicated that the question was not applicable with eighty-nine missing cases. The respondents were then asked to explain their answers. Many of the explanations echoed the theme of being engaged in supplementary income activities for personal stimulation. Their responses included the following remarks:

"My outside activities help promote my education program here in school."

"I do them for the enjoyment--not the income."

"The additional activities often provide other rewards than financial."

"I love coaching students."

"My extra jobs pay well for the little time put in and I enjoy doing them."

However, there were many responses that gave evidence that for some of the teachers engaged in supplementary income activities the perceived need to be engaged in supplementary income activities was a financial reason.

"If salary was adequate, all outside work during the school year should be disallowed as it interferes with teaching."

"I would no longer need to supplement my income to meet bills."

"I wouldn't need to work extra hours to keep my standard of living at the present level."

Just how much money did engaging in supplementary income activities contribute to the family income? The mean dollar amount acquired from being engaged in supplementary income activities was \$1,734 for professional education income, \$1,941 for summer(s), \$2,110

for evening and/or weekend job(s), and \$6,677 for being self-employed or family businesses. The data also showed that 74 percent of the teachers engaged in professional education activities, while 28.8 percent engaged in self-employment or family businesses. Thus, these findings indicate that the majority of teachers who engaged in supplementary income activities are engaged in activities with the smallest financial return. Thus, it might be wiser for teachers to engage in self-employment or family business activities if the main motivation for being engaged in supplementary income activities is a financial one.

As the data have indicated, teachers who engaged in supplementary income activities do so to improve their standard of living and to pay monthly bills. When asked to respond to the question, "What personal, professional, or cultural advantages have you substantially denied yourself or postponed because you felt that you could not or should not afford them? (Check all that apply)," the major responses included travel, 68.2 percent; vacation, 45.2 percent; clothes, 43.8 percent; automobile, 37.6 percent; hobbies, 30.9 percent; theatre, concerts, etc., 29.3 percent; and graduate work, 25.9 percent. The responses of travel; vacation; hobbies; and theatre, concerts, etc., may appear to be luxury items. It must be remembered that what "substantially denied" means is a relative term. However, for teachers to be alive, vital, interesting people with ideas to share in the classroom, these experiences are necessary to the quality of the profession. Clothes and automobiles are usually perceived as necessities of life, and clothes are particularly important in the profession of teaching. Again, the interpretation of the degree of

deprivation of the items by the teachers must be kept in perspective.

The response that teachers substantially denied or postponed graduate work is most interesting. When examining the relationship between professional development activities and being engaged in supplementary income activities, there was no significant relationship between taking advanced and extension courses and summer school and being engaged in supplementary income activities. However, there was a significant relationship between taking advanced courses and being engaged in one, two, or three or more supplementary income activities. Teachers engaged in one supplementary income activity took advanced courses more than teachers engaged in two or three or more supplementary income activities. The data also indicated that there was no significant relationship between the other professional development activities of teachers and being engaged in supplementary income activities.

When examining the relationship between being engaged in supplementary income activities and the perceived effects on the quality of teachers and teaching, graduate study was also perceived as being hindered by teachers engaged in supplementary income activities. These data indicated that being engaged in some types of supplementary income activities may jeopardize the ability of teachers to continue professional growth in this area. However, in the other professional development areas of attending summer school, belonging to professional organizations, subscribing to professional teaching magazines, and purchasing professional books, there was not a significant relationship between these activities and being engaged in one, two, or three or more supplementary income activities. These data may demonstrate that

teachers who engaged in supplementary income activities perceived the need for professional growth and development activities in spite of the time commitment to their supplementary income activities.

When examining the relationship between the perceived effects and the number of hours invested in the activities, teaching preparation, family and social life, and physical well-being were more likely to be hindered as the hours invested in the evening and/or weekend job(s) increased. Teaching preparation and inservice seminars/workshops were more likely to be hindered as the number of hours invested in the summer job(s) increased. Although only 34 percent (table 34) of all teachers engaged in supplementary income activities found teaching preparation hindered, the significant relationship between teaching preparation being hindered and the number of hours invested in the evening and/or weekend job(s) may be cause for concern. Also, 56.6 percent of all engaged respondents perceived family and social life to be hindered; and 31.4 percent perceived physical well-being to be hindered (table 34). The effects on the quality of education were hard to conclude from this study because of the small number of teachers (122) who engaged in evening and/or weekend job(s). The significance of the effect of the summer job(s) on teaching preparation and inservice seminars/workshops appeared to be minimal as the teachers still had time during the school year for these professional activities. These data, along with the significant relationship that as the number of hours/week invested in evening and/or weekend job(s) increased family and social life and physical well-being were also perceived to be hindered, indicated that there could be a negative impact on education.

When the attitudes toward supplementary income activities by teachers who were engaged in these activities were examined, a majority of teachers (51.1 percent) found their teaching and supplementary income activities equally enjoyable. An examination of the data showed no significant relationship between the attitude toward supplementary income activities and the type of job in which the teachers engaged. The fact that a majority of teachers found their teaching and supplementary income activities equally enjoyable would attest to the fact that many teachers, though possibly engaged due to family financial need, can both teach and engage in supplementary income activities without seriously jeopardizing quality education for our children.

Limitations

The following is a list of limitations pertinent to this study:

1. One flaw in the questionnaire design was the omission of an item asking for the number of hours/week that teachers engaged in professional education activities beyond the regular teaching duties. When an analysis of the data was completed, a comparison of the hours/week teachers engaged in other professional education activities was not available; and this additional information would have been most interesting.

2. When coding the returned surveys, it became apparent that the question on teaching income as primary income was interpreted in two different ways. Some respondents interpreted it as the teaching income being the primary income of the family, whereas a few respondents interpreted the question to mean the teaching income of the individual teacher. The question would have revealed more accurate data if it had

read "Would you consider the above salary to be your family's primary income?" rather than "Would you consider the above salary to be your primary income?"

3. Some confusion in the directions existed in the request to rank the perceived reasons for engaging in supplementary income activities. The directions requested the respondents to rank the reasons. Some respondents did rank the reasons, whereas some respondents checked the reasons. The data would have been easier to interpret had the directions of the question been clearer and the teachers responded in a consistent manner.

Recommendations

The following recommendations are offered based on knowledge gained by the writer during the course of the study:

1. It is recommended that further study be conducted to determine the impact of engaging in supplementary income activities on the quality of teachers and teaching. If possible, an instrument or technique should be designed that would measure the true impact, not the perceived impact. Alternatively, "in-depth" techniques with fewer subjects could be considered. Variables that could be considered might include the number of awards the teachers had received, the number of days sick leave used during the school year, and the evaluations of the teachers conducted by the supervisor or principal.

2. It is recommended that further research be conducted to investigate the impact of salaries on teachers to ensure that quality people continue to enter the profession of teaching and that teaching becomes more competitive with other professions.

3. The notion that the brighter college students are selecting the field of business because of the perceived significantly larger salaries after graduation, thus leaving a pool of less intelligent students to enter the field of education, needs further examination to determine if there truly is a correlation between the entrance, median, or potential salary and the attractiveness of the profession. Such information could impact local, state, and federal priorities.

4. It is recommended that school administrators more closely supervise teachers who engage in supplementary income activities to ensure that quality education for children is not jeopardized by teachers engaged in supplementary income activities.

5. It is recommended that further study be conducted to investigate, in depth, the perceived reasons for being engaged in supplementary income activities which are external to the school. By clearly defining the reasons teachers choose to engage in such activities, additional insights may be gained into the possible implications for public schools. For example, if the reason for being engaged is financial, the school administrators may want to provide opportunities within the school setting, such as curriculum development or other activities that would benefit the school as well as the teachers.

6. It is recommended that further study be conducted to investigate if some types of moonlighting are more detrimental to teachers and teaching than others. This information may be useful to school administrators in developing policies which would restrict or diminish the types of activities in which teachers could engage.

7. It is recommended that further study be conducted to investigate the perceived effects of moonlighting by level of teaching. The classroom activities and responsibilities vary from level to level. For example, the role of the elementary classroom teacher is quite different from that of a secondary classroom teacher. Therefore, the effects may also be different. This information may be helpful to administrators when assigning extra duties within the school system. It may also be helpful in determining a rational basis for salary differentiation.

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May 2, 1985

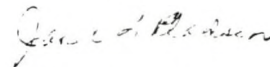
Dear Friend,

Attached please find a copy of the questionnaire I plan to use in surveying approximately 1300 Minnesota public school teachers for my dissertation. I am conducting a dissertation study on the phenomena of supplementary income activities among teachers and the ramifications of the involvement in these activities. As defined for my study, supplementary income activities involve any activities beyond the classroom teaching assignment. The findings of my study should reveal important information about teachers' salaries, the extent to which teachers engage in supplemental income activities, teachers' attitudes toward these activities, and the impact of these activities on quality education.

I would appreciate it if you would take a few minutes from your busy schedule to complete and critique the questionnaire. I am not so interested in your answers as I am the clarity of the questions. Your critique will be most helpful in assuring valid responses from the teachers that are surveyed.

Thanks again!

Sincerely,



Janet L. Pladson

28. Within the period August 15, 1983, to August 14, 1984, have you been involved in a self-owned or family business of any kind? (e.g., farming, construction, restaurant, etc.) Yes No If No, skip to #32.
29. If so, what is the family business? _____
30. How much time per week do you estimate you spend assisting in the family business? _____
31. How much income would you estimate you made from August 15, 1983, to August 14, 1984, in the family business? _____
32. Do you or your spouse receive income from any of the following sources?
 Rental property Retirement or pension
 Royalties Insurance benefits
 Dividends or interest Others (please specify) _____
 Oil or gas leases _____
 N/A If N/A, skip to #34 _____
33. What is the approximate amount of income from the sources you checked in #32 from August 15, 1983, to August 14, 1984? _____
 Comments: _____

Related Information

34. Have you taken any advanced professional or extension courses since your first teaching assignment? Yes No
35. When did you last take advanced professional or extension work? _____ Yr.
36. Have you attended summer school since your first teaching assignment?
 Yes No
37. When did you last attend summer school? _____ Yr.
38. Do you belong to any professional teacher organization?
 Yes No Specify _____
39. Do you subscribe to any professional (teaching) magazines?
 Yes No Specify _____
40. Have you purchased any professional books during the current school year?
 Yes No
41. What was your primary reason for taking a second job(s)?
 Please check one:
 To pay bills To pay debts
 To improve living standard A financial emergency
 Finance future education Diversion from teaching
 Personal stimulation Preparation to leave teaching
 Pursuit of secondary work interest/hobby
 Other (Please specify) _____
 N/A

42. What professional and cultural advantages have you denied yourself because you felt that you could not or should not afford them? (Check all that apply.)

- | | |
|---|---|
| <input type="checkbox"/> None | <input type="checkbox"/> Entertain guests |
| <input type="checkbox"/> Summer school | <input type="checkbox"/> Marriage |
| <input type="checkbox"/> Extension courses | <input type="checkbox"/> Family |
| <input type="checkbox"/> Graduate work | <input type="checkbox"/> Theatre, concerts, etc. |
| <input type="checkbox"/> Professional publications | <input type="checkbox"/> Books, magazines, etc. |
| <input type="checkbox"/> Hobbies | <input type="checkbox"/> Automobile |
| <input type="checkbox"/> Clothes | <input type="checkbox"/> Satisfactory living conditions |
| <input type="checkbox"/> Travel | <input type="checkbox"/> Other: (please specify) |
| <input type="checkbox"/> Vacation | _____ |
| <input type="checkbox"/> College education for children | _____ |

43. What amount do you believe would be an adequate teaching salary for a teacher with your qualifications? _____

44. If the salary was raised to this amount, would you discontinue engaging in additional income activities? Yes No N/A

45. Explain: _____

46. Which best describes your attitude toward your supplementary employment?

- I find it more enjoyable than teaching.
 I find teaching more enjoyable than my supplementary job(s).
 I find teaching and my supplementary jobs equally enjoyable.
 N/A

47. If applicable please rate each of the following regarding how it is affected by your supplementary employment:

	<u>Does Not Effect</u>	<u>Helps</u>	<u>Hinders</u>
Teaching performance	_____	_____	_____
Teaching preparation	_____	_____	_____
Reading & private study	_____	_____	_____
Graduate study	_____	_____	_____
Inservice seminars/workshops	_____	_____	_____
Family & social life	_____	_____	_____
Physical well-being	_____	_____	_____

48. How likely is it that you will be remaining in education for the next:

	<u>Very Likely</u>	<u>Likely</u>	<u>Unlikely</u>	<u>Highly Unlikely</u>
a. year	_____	_____	_____	_____
b. 5 years	_____	_____	_____	_____
c. until retirement	_____	_____	_____	_____

49. Please feel free to add any comments regarding teachers engaged in supplemental income activities that you feel would be helpful:

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