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Best Practices in transition: A student focused approach and interagency collaboration in rural Montana

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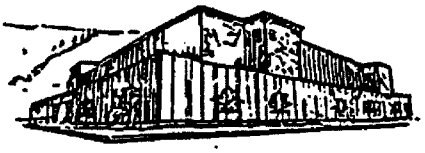

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Best Practices in Transition: A Student Focused Approach and Interagency Collaboration in Rural Montana

By

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Abstract

Best Practices seeks to produce significantly better transition outcomes among students with disabilities. Although there has been widespread acceptance of many of the tenets of Best Practices there would seem to be a lack of empirical support for some aspects of Best Practices. This thesis investigates interagency collaboration and the role a student focused approach to transition services can play in rural schools. In this analysis we found that there is a large disparity in the amount of interagency collaboration in rural versus urban schools. This disparity is statistically significant for all seven variables used to measure interagency collaboration. Yet, in rural schools where a student focused approach was identified it was found that the disparity was not statistically significant for four of the seven variables and the statistical relationship for each of the other three variables was weakened.

Though limited to rural Montana, there is reason to consider that the findings of this study have broader implications for the implementation of Best Practices. It is suggested that a student focused approach is essential to Best Practices as an underlying philosophy and the results of this study shows how important it can be in empirically supporting aspects of Best Practices. These findings suggest that a student focused approach in rural schools mitigates some of the challenges associated with maintaining interagency collaboration in rural transition services and leads to higher levels of interagency collaboration.

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Introduction

The passage of the Individuals with Disabilities Education Act (IDEA) requiring that youths with disabilities receive what has been termed transition services as they move from school to adult life has fundamentally changed the way secondary school-age students are educated. This law requires that transition services planning begins at age 14 and at age 16 provides support as to encourage independence-related outcomes. Out of this a body of theoretical techniques called "Best Practices" has emerged as processes that seeks to produce significantly better transition outcomes among students with disabilities. Although there has been widespread acceptance of many of the tenets of Best Practices there seems to be a lack of empirical support for some aspects of Best Practices. The focus of this research is to examine what factors contribute to increased levels of interagency collaboration within the context of the Montana school system.

Montana is the fourth largest state in land size and ranks 44th of the 51 states in population. Implementing aspects of Best Practices within this type of area present challenges related to a lack of infrastructure usually required to provide services considered necessary for effective transition services. In spite of these obstacles, Best Practices has been implemented in both urban and rural areas of Montana and is the subject of this study.

We believe that a student-focused approach to transition services is associated with increased interagency collaboration between schools and adult services providers that support and make available transition related services. A recent survey of Educational Administrators in Montana focused on transition for youth with disabilities and is available to assist in testing whether or not a student-focused approach to transition services increases interagency collaboration in rural Montana. We expect to show that a student-focused approach contributes to increased interagency collaboration.

Background

Prior to 1970, young adults with severe disabilities could not get into school. The only education available to some students was The Arc, a partial day program. This changed in 1975, with the passage of PL 94-142, the Education of All Handicapped Children Act, which first provided assurance of a free, appropriate public education. In the 1980's, students and families were provided school services, but soon it was realized that in order for more functional, real-life community experiences, such as work placements, to be possible for these students the schools would have to develop methods for incorporating these experiences into the school curriculum (Cashman 2000, Wehman 1992).

Prior to the 1980's it was difficult to find any mention of transition in federal legislation. Finding specific sources of money in federal budgets or a distinct professional body of literature on transition would have been difficult.

However, in the 1980's there were post-school, age 21, follow-up studies conducted that provided in-depth documentation of shortcomings in the public school and vocational rehabilitation delivery systems. A body of literature began to document the drop-out rates and other problems among students with disabilities. Changes in the law, such as the 1983 amendment to the original 1975 Education of All Handicapped Children Act (PL 98-199), included incentives for transition and other such programs into the existing delivery system (Wehman 1992).

In a study of 8,000 special education youth ages 13 to 21 conducted in the 1985-86 school year by the National Longitudinal Transition Study of Special Education Students (Marder and D'Amico 1992), it was found that compared to regular education students:

- more exiters with disabilities left secondary school by dropping out,
- fewer dropouts with disabilities completed GED's,
- fewer graduates with disabilities attended postsecondary schools,
- fewer youth with disabilities had paid jobs during and after secondary school,
- more employed youth with disabilities worked part-time and in low-status jobs,
- fewer out of school youth with disabilities achieved residential independence,
- more youth with disabilities were arrested.

Research such as this led to the Rehabilitation Act Amendments of 1986 (PL 99-506) for the first time focused extensively on improving independent living opportunities, client rights, and supported employment opportunities. These amendments offered a major avenue of transition opportunity for young

adults by updating the original Rehabilitation Act of 1973 (PL 93-112) and included some language related to transition and the importance of transition services. Specifically, Title I of these Amendments referred to supported employment in determining eligibility for rehabilitation services and allowed states to fund supported employment from the basic state grant program (Wehman 1992). The Rehabilitation Act Amendments of 1992 further updated the Rehabilitation Act by giving more choice and consumer control over vocational outcomes to those served (Wehman 1996).

Prior to the passage of the 1990 IDEA laws (in the 1980's) other types of studies were conducted to establish what was being done in special education concerning transition. One such study was conducted by Bruno J D'Alonzo and Steven D Owen (1985) who presented results from a national survey of 49 transition grant awardees. Information from these types of surveys were synthesized into sets of transition service components. This research reflected current trends, but there was not a universally accepted complement of programs and practices that collectively defined the concept of "transition services." However, certain components common to most of these early efforts in this area were identified as an emerging set of "best practice indicators" in the area of transition. In 1990, a listing of the most frequently identified practices was completed by P.D. Foss. This listing is identified below (Vogelsberg, Maloney, Ipsen, and McGregor 1995):

- interagency cooperation and collaboration

- vocational assessment
- vocational skills training
- social skills training
- career education curricula
- paid work experience during high school
- written transition plans
- parent/family involvement in the transition process

With the passage of PL 101-476 in 1990 (Individuals with Disabilities Education Act) transition planning for secondary-aged students with disabilities shifted from a suggested to a mandated service. This was an attempt to ensure that an effort was made to develop a plan regarding post-school life for students with disabilities (Vogelsberg, Maloney, Ipsen, and McGregor 1995). The latest definition for transition is set forth in the 1997 IDEA amendments.

The term transition is defined by the Individuals with Disabilities Education Act as:

> ...a coordinated set of activities for a student with a disability that:
> (A) is designed within an outcome-oriented process, which promotes movement from school to post-school activities, including postsecondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living, or community participation;
>
> (B) is based upon the individual student's needs taking into account the student's preferences and interests; and
>
> (C) includes instruction, related services, community experiences, the development of employment and other post-school adult living objectives, and when appropriate, acquisition of daily living skills and functional vocational evaluation (PL 105-17, Section 602(30)).

Best Practice Indicators serve as the theoretical component of transition services and many were tested, but not all of the indicators tested were empirically supported. A study conducted by Paula D. Kohler (1993) on these

"best practice indicators" analyzed which indicators had been identified or supported in the literature as having a positive impact on student outcomes. Kohler presented a review and analysis of literature concerning these best practices. In this study 49 documents were reviewed from the time period of 1985 to 1991. From these 49 documents there were three primary types that emerged; (1) follow-up studies of students with disabilities, (2) pseudo- and quasi-experimental studies, and (3) theory-based or opinion articles. The articles were coded into two different groups, as substantiated by study results where there was a supporting link between results or outcomes and a practice, or as implied by authors where the authors offered suggestions or implications pertaining to a practice, but lacked specific links between the data and practice.

In the 49 articles reviewed, six practices were examined. Of these six practices, four were substantiated and two implied. The four substantiated practices were vocational education, paid work experience, parent involvement, and social skills instruction. The two practices that were not substantiated in any studies but were implied in over one-third of the documents were interagency collaboration and individualized plans or planning.

John Johnson and Frank Rusch (1993) also conducted research into best practices related to transition services. They organized the existing research which addressed transition into four categories. They focused on follow-up and outcome studies, identification and analysis of best practices in transition, policy research, and analyses of applications of federally funded model demonstration

projects. It was observed in this research that there was little empirical evidence that existed to support relationships between identified best practices and post-school outcomes.

Gary Greene and Leonard Albright (1995), editors of Career Development for Exceptional Individuals, commented on the above article by John Johnson and Frank Rusch, noting in the report that few of the recommended Best Practices in transition services are actually supported by empirical data. These editors also cited Paula Kohler's finding that only 4 of 11 Best Practices identified in transition services were supported by empirical evidence and stated that Best Practices were likely to be given up in time due to lack of empirical support.

Research on these lists of originally identified Best Practices is still being conducted. Pat Sample (1998) conducted a longitudinal study which focused on six best practices: vocational intervention, paid work experience, social skills curriculum, interagency collaboration, parent involvement, and individualized plans/planning. It discusses how they are linked with post-school outcomes of employment and community adjustment for students with significant emotional disturbance. This study showed that high school employment and parental involvement increased successful transition.

The aforementioned research conducted by a variety of researchers focuses only on the original set of Best Practices, but other theoretical underpinnings of Best Practices that weren't listed previously have come under

consideration by other researchers. In 1998, Frank R. Rusch and Janis G. Chadsey published "Beyond High School: Transition from School to Work," presenting a large and complex body of research and emerging theories concerning solutions to complex problems facing educators.

Student-focused transition planning is one of the topics addressed in many of the chapters of this book that was not in the originally identified lists of Best Practices. These authors address a problem they describe as the "lack of transition planning becoming fully institutionalized." The authors note a tendency to add programs to the core of the education system instead of changing the core to a more student-focused approach. For many local educators the tendency to meet the letter of the law rather than the intent has resulted in expanded IEP forms that include lists of outcomes, services, and agencies that purportedly represent a coordinated set of activities developed through an outcome-oriented process. In reality the practice of completing this expanded IEP and meeting the mandates of IDEA often becomes a process that primarily meets the needs of the school to follow the letter of the law instead of meeting the needs of the student (Rusch and Chadsey 1998).

Meg Grigal and others (1997) conducted research that supports the observations of Rusch and Chadsey. In this study, an evaluation of individualized education programs (IEPs) for 94 high school students with disabilities found that while there was compliance with mandates of IDEA, essential elements of Best Practices were lacking. The results of this study

suggested that the guiding philosophy of transition planning in some schools is one of minimal compliance, rather than adherence to quality programming and planning. Major problems noted were that although the documents reviewed contained the essential elements of the mandates of IDEA, the contents of these elements were less than exemplary. The contents contained goals that were written in general terms, time lines that were imprecise, follow-up that was scarce, and there was minimal collaboration with adult services, even though the documents examined complied with IDEA.

In a more recent study that supports student-focused Best Practices, Nicole Deschnes and Hewitt B. Clark conducted a survey (1998) of 254 transition programs across North America and visited nine of them to examine their values, supports, and services. This study identified seven common crucial features that were identified in all effective programs. These features were highlighted by examining nine of the most effective programs. All of these programs were consumer-centered and emphasized structuring transition services so that they promoted student interest, involvement, and self-determination.

The suggestion by Gary Greene and Leonard Albright (1995) that Best Practices would lack empirical support and be given up in time has not been substantiated. Instead, other possible theories, such as the lack of a student-focused approach, have been developed to explain some of the difficulties in empirically supporting best practices.

Hypothesis

The central hypothesis of this research is that rural schools with a student focused approach will be more likely than non-student focused rural schools to invite adult service agencies, which constitute crucial measures of interagency collaboration.

Methods

Sample

This study, completed in 2000, was conducted by the Rural Institute on Disabilities at the University of Montana. The primary focus was to replicate a 1994 study, to identify state-wide changes, and to expand the existing knowledge about issues in transition from school to adult life in Montana through research to be conducted and presented in written reports disseminated state-wide. Many of the questions asked were geared towards assessing different aspects of transition services within the state. Of the questions regarding the different aspects of transition services, many relate directly to identified Best Practices.

Educational Administrators (principals, special education directors, and cooperative directors) were the sample used in these surveys. They were identified by using a state-wide list of all educational administrators from the

Montana Office of Public Instruction. Principals who were considered responsible for transition-age students ages 14 to 21, as well as the special education and cooperative directors throughout the state were selected and mailed questionnaires.

Survey return rates were excellent. As a result of intensive follow-up efforts we received a total of 161 of the 229 questionnaires mailed for a return rate of 70.3 percent. Of the 161, there were 23 respondents who did not complete all the questions used in this analysis and were excluded using list-wise case deletion. This resulted in a total of 138 respondents, 60.3 percent, to be included in this analysis. This total is considered to be more than adequate for generalizing to the educational administrators responsible for transition-age students in Montana.

Previous Research, Variables, and Definitions

Many of the questions concerning Best Practices in this survey focused on interagency collaboration. Some of these questions will be used to measure interagency collaboration, which is the dependent variable, for examination using the two independent variables, which are (1) rural/urban and (2) a student focused approach.

Interagency Collaboration is defined as a group of individuals representing multiple and diverse agencies and organizations who come together to establish a working relationship across traditional agency and organizational boundaries to better serve individuals with disabilities, and has

long been established as an indicator of Best Practices. The respondents were asked, "Which Adult Service Agency(ies) does your district or cooperative typically invite to Transition planning meetings?" The reported invitations of various agencies will be used to represent the level of interagency collaborations for this analysis. See the distributions of data in Table 1 below.

Table 1. Interagency Collaboration Distribution

Adult Service Invites to Transition Meetings	Interagency Collaboration(n=138) Percentages
None	14.5%
Vocational Rehabilitation Counselors	70.3%
Developmental Disabilities Case Managers	46.4%
Mental Health Counselor	42.8%
Residential Provider	21.0%
Day Treatment Provider	13.8%
Supported Employment Provider	18.8%

The rural/urban variable will be used because rural areas are more isolated and may lack the infrastructure required to provide services considered necessary for effective transition services. The difficulty of establishing interagency collaboration in this context is examined by identifying rural schools as those schools identified as B or C schools, which means they have 1 to 369 students, as opposed to urban schools identified as AA or A schools, which have 370 or more students. Respondents were asked, "Which size of school are you from? Rural (B or C School) or Urban (A or AA School)." See the distribution of response data in Table 3 below.

Table 2. Rural/Urban Distributions

Rural/Urban Distributions	Rural/Urban	
	Frequencies	Percentages
Rural	103	74.6%
Urban	35	25.4%
Totals	138	100%

Previous analysis of this data at the Rural Institute on Disabilities looked at the level of interagency collaboration that exists in rural versus urban schools. Table 3 below shows a wide disparity between the likelihood of Adult Service Invites by rural as opposed to that of urban schools.

Table 3. Interagency Collaboration: Overall and Rural/Urban Percentages

Adult Service Invites to Transition Meetings	Percentage of Invitations		
	Overall(n=138)	Rural(n=103)	Urban(n=35)
None	14.5%	19.4%	0.0%
Vocational Rehabilitation Counselors	70.3%	63.1%	91.4%
Developmental Disabilities Case Managers	46.4%	33.0%	85.7%
Mental Health Counselor	42.8%	37.9%	57.1%
Residential Provider	21.0%	15.5%	37.1%
Day Treatment Provider	13.8%	7.8%	31.4%
Supported Employment Provider	18.8%	11.7%	40.0%

Further Research using a Student Focused variable

The differences between the rural and urban percentages of invites are large enough to warrant further investigation into other variables that might mitigate this large disparity. In this investigation the approach of Rusch and Chadsey's book, previously cited, is especially useful. Their emphasis on the lack of a student-focused approach in transition services is key to coding a

qualitative open-ended survey question into a variable to be used in this analysis.

This student focused variable is considered because a student focused approach may be a qualitative difference in schools related to increased interagency collaboration. This variable comes from the question, "What factors contribute to determining what adult services agencies are invited to attend meetings?" Those who reported considering student goals, needs, and/or desires when inviting adult services to transition meetings were identified as being student focused using this open-ended question. Those who reported any other factors that did not include the student's goals, needs, and/or desires were identified as non-student focused. Other criteria also used to identify a student focused approach was the number or proportion of students with employment goals in their IEP and whether or not there was reported transition services for students with multiple, autistic, and other health disability categorization. All of these other criteria variables were significantly associated with the student focused variable. See the distribution of data in Table 4 below.

Table 4. Student Focused Variable Distribution

Identified Groups	Student Focused Approach (n=138)	
	Frequency	Percentages
Non-student Focused	71	51.4%
Student Focused	67	48.6%
Totals	138	100%

Controlling for bias

In conducting this research, several topics concerning possible biases within the data came up and were addressed.

One of the possible biases was the amount of causality attributable to the county demographic of per capita income. To examine this the study used the 1998 census data on average per capita income for counties and created a county income variable that categorized the counties into those above and below the average per capita income for the state. Using this variable a partial correlation analysis was conducted. The results of this analysis (see Table 5) showed there are still significant associations between the variable of rural/urban and all but one of the adult service invitation variables when the effects of the county income variable are controlled.

The average income variable was then analyzed in conjunction with the rural/urban variable to produce the following categories, e.g. rural-low income, rural-high income, urban-low income, and urban-high income. The new variable was then used in a cross-tabulation with the dependent interagency variables to look at the significant associations and PRE values that exist between the rural/urban and the adult service invitation variables while taking into account for the influence of average county income. See Table 5.

Table 5. Significant Associations between Interagency Collaboration and Rural/Urban Controlling for Average County Income

Adult Service Invites to Transition Meetings	Rural/Urban(n=138),ordered by PRE ranking		
	Partial	Phi-square(PRE)	Chi-square Prob.
DD Case Managers	.000	.213	.000
Day Treatment Provider	.001	.156	.000
Supported Employment Provider	.000	.101	.002
VR Counselors	.001	.077	.014
Residential Provider	.006	.067	.027
Mental Health Counselor	.076	.062	.035
None	.004	.061	.037

Generally, partial contingency tables also show that there are relationships between the rural/urban variable and the adult service items. The rural/urban and average income variables do overlap to some degree, with fewer of those in the urban category being in a county with per capita income below the state average. However, even with the much smaller number of urban cases with low income in the partial contingency tables there were still significant associations in 9 of the 14 (64.3%) tables and in all cases the predicted direction held (see appendix A).

Another area of possible bias was investigated by looking at the membership within the rural category to make sure that the analysis was not confounded because a significant portion of the rural group, while reporting being rural, did not meet the criteria of being remote from adult services. To look at this internal validity issue the study ensured that those reporting being rural were not in the same city as a Vocational Rehabilitation (VR) office. Using the survey tracking paperwork kept in conducting this survey in conjunction with

the Montana Office of Public Instruction directory, the study established that only 4 (3.9%) of the 103 rural educational administrators were listed as being located in a city that had a VR office. These four respondents included three special education directors and one cooperative director. These directors are often centrally located and serve rural areas from that location.

In conducting this analysis the investigator found that many of the respondents did not answer all of the questions asked in the questionnaire that were used in this analysis. For this reason 23 of the cases were excluded using a list-wise case deletion method. In deleting these cases the question that must be answered is how does this bias the study. Further investigation of this by comparing those excluded (n=23) and those included (n=138) in the study showed that there were differences in the amount of interagency collaboration for these two groups.

Of the 23 excluded there were 12 that answered the interagency collaboration questions. Of these 12 respondents, 58.3 percent reported inviting none of the adult services to transition IEP meeting and only 41.7 and 16.7 percent respectively reported inviting VR Counselor and DD Case Managers. Most of those excluded were from rural schools and the differences in percentages were a striking contrast even when compared to the rural respondents included in the study. Only 19.4 percent of these rural respondents reported inviting none of the adult services and 61.3 and 33.0 percent respectively reported inviting VR Counselors and DD Case Managers.

These comparisons suggest that the analysis presented in the findings section of this thesis are conservative. That is, there would be a larger disparity between the percentages of interagency collaboration for the rural and urban respondents if the excluded respondents had completed the questionnaire and that this larger disparity could have further highlighted the influence that a student focused approach has on interagency collaboration.

Another area of concern was that the two independent variables, the student focused and rural/urban variables, may not be mutually exclusive variables. The concern was that the results of the analysis would be confounded because of a strong relationship between the independent variables. Table 6 below displays the distributions of the sample when cross-tabulating the two independent variables. There is a difference in the percentages, but not a strong statistically significant one. As is often the case with independent variables, these two are slightly correlated (r=.167). This correlation accounts for approximately three percent of the variance between the two variables which leaves 97percent of the variance unexplained. This analysis supports the use of these two variables as independents.

Table 6. Intervening Student Focused Approach Variable and Rural/Urban Percentages

Identified Groups	Rural/Urban Percentages(n=138) Rural	Urban	Total
Non-Student Focused	67.2% (45)	18.3% (13)	100%
Student Focused	81.7% (58)	32.8% (22)	100%
Total Frequency	(103)	(35)	

Procedures and Goals

It is hypothesized that a student-focused approach among rural schools will tend to mitigate some of the challenges associated with maintaining interagency collaboration in rural transition services. Thus, the rural schools with a student-focused approach will tend to have higher interagency collaboration than those rural schools without such a focus. The main hypothesis will be analyzed by dichotomizing the rural schools into those that are identified as student focused and those rural schools identified as non-student focused. The levels of interagency collaboration, significant associations, and amount of explained variance for these two groups will then be compared.

Findings

In Table 3 we saw that there are wide disparities between the likelihood of adult service invites by rural as opposed to that of Urban schools. In Table 7 the disparities noted in Table 3 are reflected in the PRE values (proportion reduction in error or explained variance) and significant associations between the interagency and rural/urban variables.

Table 7. Significant Associations: Interagency Collaboration and Rural/Urban

Adult Service Invites to Transition Meetings	Rural/Urban(n=138),ordered by PRE ranking	
	Phi-square(PRE)	Chi-square Prob.
Developmental Disabilities Case Managers	.211	.000
Supported Employment Provider	.099	.000
Day Treatment Provider	.089	.000
Vocational Rehabilitation Counselors	.073	.002
None	.058	.005
Residential Provider	.053	.007
Mental Health Counselor	.029	.046

In Table 8 the percentages for rural non-student focused and rural student focused dichotomies are made and the percentages for each are presented between those for rural and urban groupings. Comparing them with the rural and urban percentages, we can see that there are substantial differences in the interagency variable percentages for rural non-student focused and the rural student focused.

Table 8. Interagency Collaboration, Rural/Urban, and Student Focused Percentages

Adult Service Invites to Transition Meetings	Rural/Urban* (n=138) and Rural Student-Focused** (n=103)			
	Rural*(n=103)	Rural Non-S.F.**(n=58)	Rural S.F.**(n=45)	Urban*(n=35)
None	19.4%	24.1%	13.3%	0.0%
V.R Counselors	63.1%	56.9%	71.1%	91.4%
D.D. Case Managers	33.0%	31.0%	35.6%	85.7%
M.H. Counselor	37.9%	34.5%	42.2%	57.1%
Res. Provider	15.5%	13.8%	17.8%	37.1%
Day Tx Provider	7.8%	5.2%	11.1%	31.4%
Sup. Empl. Provider	11.7%	8.6%	15.6%	40.0%

The difference in percentages noted in Table 8 between rural non-student focused and rural student focused groups are reflected in the significant associations for each of these groups in Table 9. The analysis for these two groups show that there is a significant association between the rural/urban and all of the Interagency variables for the non-student focused group, but for the student focused group there is no longer a significant association between the rural/urban variable and four of the seven dependent variables. Significant associations remain for the Developmental Disabilities Case Manager, Supported Employment Provider, and Day Treatment Provider variables, but we can see that each of these statistical relationships is weakened by looking at the lower PRE values for those identified as Student Focused.

Table 9. Significant Associations: Interagency Collaboration and Rural/Urban grouped by Student Focused Variable

Adult Service Invites to Transition Meetings by grouping	Rural/Urban(n=138),ordered by PRE ranking	
	Phi-square(PRE)	Chi-square Prob.
Non-student Focused group		
Developmental Disabilities Case Managers	.230	.000
Supported Employment Provider	.110	.005
Day Treatment Provider	.110	.005
Vocational Rehabilitation Counselors	.081	.017
Mental Health Counselor	.075	.021
Residential Provider	.061	.038
None	.055	.048
Student Focused group		
Developmental Disabilities Case Managers	.189	.000
Supported Employment Provider	.078	.022
Day Treatment Provider	.064	.038
Vocational Rehabilitation Counselors	ns	ns
Mental Health Counselor	ns	ns
Residential Provider	ns	ns
None	ns	ns

Discussion

This thesis investigates interagency collaboration and the role a student focused approach to transition services can play in rural schools. In this analysis we found that there is a large disparity in the amount of adult service invitations, or interagency collaboration, in rural versus urban schools. This disparity is statistically significant for all seven variables used to measure interagency collaboration. Yet, in rural schools where a student focused approach was identified it was found that the disparity was not statistically significant for four of the seven variables and that each of the statistical relationships for the other three variables was weakened.

There are important contributions that this analysis can make to the Best Practices theoretical perspective in further exploration of interagency collaboration, addressing the disparity of adult services involvement in rural and urban locations within Montana, and promoting further research into increasing levels of interagency collaboration in transition planning.

Contributing to Best Practices Theory and Interagency Collaboration Research

One of the primary goals of this research is to incorporate the student-focused approach as a factor contributing to empirically supporting Best Practices, more specifically interagency collaboration. Though limited to rural Montana, there is reason to consider that the findings of this study suggest broader implications for the implementation of Best Practices. The reason for this is that the theoretical formulation of Best Practices was founded upon the philosophy of a student focused approach. The use of Best Practices requires focusing on the needs of the student and tailoring the services that the school provides to meet their unique needs. In some respects this study reflects the need to make explicit what has been an implicit part of this approach because of the lack of empirical support for Best Practices. The importance of testing for the effect of a student focused approach is that previous research between interagency collaboration and transition outcomes, which did not support interagency collaboration, may have been confounded.

In previous studies, the lack of empirical support for interagency collaboration in transition outcomes may have had more to do with research

designs that did not take into account such factors as a student focused approach than the relationship between the variables tested. Considering the findings of this study, future studies that attempt to empirically support interagency collaboration in transition services should control for the influence of a student focused approach, especially in rural settings. This will take into account what many consider to be the most essential part of what makes Best Practices work, the underlying philosophy, which otherwise would not be considered.

This may be particularly difficult in many of the studies conducted that rely on the use of Individualized Education Plan (IEP) documentation. IEP documents often have references made to including adult service involvement without listing the specific services to students that will be provided. A likely reason for this is the difference between the mandated system of the school and the availability-oriented adult service delivery system. If the school includes the specific details of what the adult services will provide in the IEP and then there is no availability within the adult services system, the school will have to provide the services listed in the IEP. Therefore, what is often written about adult services involvement or interagency collaboration in IEP documents are general statements of involvement that lack empirical substance. Reviewing these general statements makes getting at the issue of interagency collaboration in IEP evaluations very difficult.

This limitation in some research that use IEP evaluations serves to highlight some of the strengths of the research in this thesis. The use of a survey on Educational Administrators addresses the topic of adult service involvement in a way that is not biased by IEP documentation that often serves the purpose of meeting IDEA law requirements and therefore confuses what actually takes place in transition services. Also, a strength of this survey is that it incorporates the individual perspective of those surveyed, and whether or not they are student focused, while including school and adult service collaboration as measured by invitations.

The main weakness of this research is the focus on educational administrators. There is the question of whether or not invitations made by schools actually resulted in increased attendance by adult service case managers and counselors. We cannot tell this from just the survey of educational administrators alone.

In order to address this weakness a survey of Montana Vocational Rehabilitation, Developmental Disabilities, and Mental Health Counselors and Case Managers examined the relationships between two variables, receiving invitations to transition IEP meetings and reported attendance of transition IEP meetings. Analysis of this survey found a correlation ($r=0.595$) between these two variables. Of those surveyed, 98 of overall 126 reported whether or not they had received invitations and their attendance to transition IEP meetings. Of the 98, 33 reported receiving no invitations to transition IEP meetings and attending

none of the IEP meetings, however, 65 (66.3%) had received invitations and all had attended at least one IEP meeting. This correlation and the percentages support the validity of using educational administrators survey data on adult service invites to transition meetings as a useful and valid measure of interagency collaboration.

It is also worth noting that this analysis on how a student focused approach can mitigate the differences in interagency collaboration among rural schools is conservative. The relationships found are likely to be stronger than this analysis suggests because some respondents with lower levels of interagency collaboration were excluded from the study because they did not complete many of the other questions used in this analysis.

Adult Services involvement in rural locations and further research

Montana is a state that is both fourth largest in land size and 44th of the 51 states in population. In Montana the state adult services offices are centralized in the larger cities which makes accessing them difficult for many of the state's residents with disabilities. The large land area combined with a small population makes supporting Best Practices in this type of area challenging because of the lack of infrastructure you would find in more populated areas.

Of the 902,000 Montanans, 36 percent live in cities that have at least one of the three adult service offices (Billings, Missoula, Great Falls, Helena, Butte, Bozeman, Miles City, Havre, Kalispell, Glasgow). Only three of these cities have offices for all three of the adult service organizations. These three cities

(Billings, Missoula, and Great Falls) are the largest population centers and consist of 23 percent of Montana's population. This leaves at least 64 percent of all Montanans at some distance from these adult service offices.

In spite of the lack of infrastructure, Best Practices have been implemented in both urban and rural areas of Montana. As seen in Table 3, there is a large disparity in the amount of Adult Service invitations that are made by rural versus urban educational administrators. In rural areas there are significantly lower percentages of invitations when compared to that of urban areas. These findings make sense when the distances involved and weather conditions that frequently prohibit travel are taken into account. However, the rural/urban differences become insignificant for four of the seven dependent collaboration measures and weaker for the remaining three variables where student focused practices are used. In other words, a student focused approach in rural schools mitigates some of the challenges associated with maintaining interagency collaboration in rural transition services and leads to higher levels of interagency collaboration in rural schools with a student focused approach.

The implications of finding that a student focused approach can increase the level of interagency collaboration despite geographical barriers suggests that it would be beneficial to study what encourages or fosters a student focused approach. This will be especially useful in rural areas where accessing adult service involvement is the most difficult.

Bibliography

Cashman, Joanne. 2000. "IDEA '97 reinforces the commitment to transition services and focuses on outcomes for students with disabilities." *Point of Departure* Vol. 5, No.1.

D'Alonzo, Bruno J and Steven D Owen. 1985. "Transition Services for the Disabled: A National Survey." *Arizona: Annual Convention of the Council for Exceptional Children.*

Deschnes, Nicole and Hewitt B Clark. 1998. "Seven Best Practices in Transition Programs for Youth." *Reaching Today's Youth: The Community Circle of Caring Journal* 2: 44-48.

Foss, P.D. 1990. "Transition from school to community: What works for students with disabilities?" Masters thesis, University of Central Florida.

Greene, Gary and Leonard Albright. 1995. " 'Best Practices' in Transition Services: Do They Exist?" *Career Development for Exceptional Individuals* 18: 1-2.

Grigal, Meg and others. 1997. "An Evaluation of Transition Components of Individualized Education Programs." *Exceptional Children* 63: 357-72.

Johnson, John R and Frank R Rusch. 1993. "Secondary Special Education and Transition Services: Identification and Recommendations for Future Research and Demonstration." *Career Development for Exceptional Individuals* 16: 1-18.

Kohler, Paula D. 1993. "Best Practices in Transition: Substantiated or Implied?" *Career Development for Exceptional Individuals* 16: 107-21.

Montana High School Association. 1987. *"Athletic Classification and Districting."* Montana High School Association: Board of Control, Article 10, Section 1.

Marder, Camille, and Ronald D'Amico. 1992. *"How well are youth with disabilities really doing? A Comparison of youth with disabilities and youth in general."* National Longitudinal Transition Study of Special Education Students.

Rusch, Frank R. and Janis G. Chadsey. 1998. *Beyond High School: Transition from School to Work: The Wadsworth Special Educator Series.* California: Wadsworth Publishing Company.

Sample, Pat. 1998. "Postschool Outcomes for Students with Significant Emotional Disturbance Following Best-Practice Transition Services." *Behavioral Disorders*, 23: 231-42.

Vogelsberg, R. Timm, Ted Maloney, Catherine Ipsen, and Gail McGregor. 1995. *"Transition From School To Supported Employment and Adult Life: A Survey of Service Personnel in Montana."* The University of Montana: University Afillitiated Program, Rural Institute on Disabilities.

Wehman, Paul. 1992. *Life Beyond the Classroom: Transition Strategies for Young People with Disabilities* Maryland: Paul H. Brookes Publishing Company.

_____. 1996. *Life Beyond the Classroom: Transition Strategies for Young People with Disabilities: Second Edition* Maryland: Paul H. Brookes Publishing Company.

Appendix A

Average per Capita Income and Rural/Urban School Crosstabulation

			School Type		
			rural	urban	Total
Income	Below Average	Count	48	12	60
		% within SCH_TYPE	46.6%	34.3%	43.5%
	Above Average	Count	55	23	78
		% within SCH_TYPE	53.4%	65.7%	56.5%
Total		Count	103	35	138
		% within SCH_TYPE	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.612[b]	1	.204
Likelihood Ratio	1.638	1	.201
N of Valid Cases	138		

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.22.

Inviting None of the Adult Services and School Type grouped by Income

				School Type		
Income				rural	urban	Total
Below Average	Inviting None of the Adult Services	not checked	Count	40	12	52
			% within School Type	83.3%	100.0%	86.7%
		checked	Count	8		8
			% within School Type	16.7%		13.3%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting None of the Adult Services	not checked	Count	43	23	66
			% within School Type	78.2%	100.0%	84.6%
		checked	Count	12		12
			% within School Type	21.8%		15.4%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	2.308[b]	1	.129
	Likelihood Ratio	3.867	1	.049
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	5.931[c]	1	.015
	Likelihood Ratio	9.269	1	.002
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.60.

c. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.54.

Inviting VR Counselor and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting VR Counselor	not checked	Count	16	1	17
			% within School Type	33.3%	8.3%	28.3%
		checked	Count	32	11	43
			% within School Type	66.7%	91.7%	71.7%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting VR Counselor	not checked	Count	22	2	24
			% within School Type	40.0%	8.7%	30.8%
		checked	Count	33	21	54
			% within School Type	60.0%	91.3%	69.2%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	2.955[b]	1	.086
	Likelihood Ratio	3.539	1	.060
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	7.461[c]	1	.006
	Likelihood Ratio	8.668	1	.003
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.40.

c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 7.08.

Inviting DD Case Manager and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting DD Case Manager	not checked	Count	31	2	33
			% within School Type	64.6%	16.7%	55.0%
		checked	Count	17	10	27
			% within School Type	35.4%	83.3%	45.0%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting DD Case Manager	not checked	Count	38	3	41
			% within School Type	69.1%	13.0%	52.6%
		checked	Count	17	20	37
			% within School Type	30.9%	87.0%	47.4%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	8.906[b]	1	.003
	Likelihood Ratio	9.364	1	.002
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	20.432[c]	1	.000
	Likelihood Ratio	22.093	1	.000
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 0 cells (.0%) have expected count less than 5. The minimum expected count is 5.40.

c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.91.

Inviting Residential Provider and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting Residential Provider	not checked	Count	41	6	47
			% within School Type	85.4%	50.0%	78.3%
		checked	Count	7	6	13
			% within School Type	14.6%	50.0%	21.7%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting Residential Provider	not checked	Count	46	16	62
			% within School Type	83.6%	69.6%	79.5%
		checked	Count	9	7	16
			% within School Type	16.4%	30.4%	20.5%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	7.095[b]	1	.008
	Likelihood Ratio	6.204	1	.013
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	1.969[c]	1	.161
	Likelihood Ratio	1.870	1	.171
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.60.

c. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.72.

Inviting Day Treatment Provider and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting Day Treatment Provider	not checked	Count	46	11	57
			% within School Type	95.8%	91.7%	95.0%
		checked	Count	2	1	3
			% within School Type	4.2%	8.3%	5.0%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting Day Treatment Provider	not checked	Count	49	13	62
			% within School Type	89.1%	56.5%	79.5%
		checked	Count	6	10	16
			% within School Type	10.9%	43.5%	20.5%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	.351[b]	1	.554
	Likelihood Ratio	.310	1	.578
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	10.551[c]	1	.001
	Likelihood Ratio	9.760	1	.002
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 2 cells (50.0%) have expected count less than 5. The minimum expected count is .60.

c. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.72.

Inviting Supported Employment Provider and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting Supported Employment Provider	not checked	Count	42	6	48
			% within School Type	87.5%	50.0%	80.0%
		checked	Count	6	6	12
			% within School Type	12.5%	50.0%	20.0%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting Supported Employment Provider	not checked	Count	49	15	64
			% within School Type	89.1%	65.2%	82.1%
		checked	Count	6	8	14
			% within School Type	10.9%	34.8%	17.9%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	8.438[b]	1	.004
	Likelihood Ratio	7.243	1	.007
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	6.276[c]	1	.012
	Likelihood Ratio	5.789	1	.016
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 2.40.

c. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.13.

Inviting Mental Health Counselor and School Type grouped by Income

Income				School Type: rural	School Type: urban	Total
Below Average	Inviting Mental Health Counselor	not checked	Count	35	6	41
			% within School Type	72.9%	50.0%	68.3%
		checked	Count	13	6	19
			% within School Type	27.1%	50.0%	31.7%
	Total		Count	48	12	60
			% within School Type	100.0%	100.0%	100.0%
Above Average	Inviting Mental Health Counselor	not checked	Count	29	9	38
			% within School Type	52.7%	39.1%	48.7%
		checked	Count	26	14	40
			% within School Type	47.3%	60.9%	51.3%
	Total		Count	55	23	78
			% within School Type	100.0%	100.0%	100.0%

Chi-Square Tests

Income		Value	df	Asymp. Sig. (2-sided)
Below Average	Pearson Chi-Square	2.330[b]	1	.127
	Likelihood Ratio	2.212	1	.137
	N of Valid Cases	60		
Above Average	Pearson Chi-Square	1.200[c]	1	.273
	Likelihood Ratio	1.208	1	.272
	N of Valid Cases	78		

a. Computed only for a 2x2 table

b. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.80.

c. 0 cells (.0%) have expected count less than 5. The minimum expected count is 11.21.