

**West Virginia's Career and Technical Education Teachers'
Perceptions of the No Child Left Behind Act**

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Abstract

The purpose of this study was to determine how career and technical education teachers (CTE) in West Virginia perceived the impact of the No Child Left Behind (NCLB) Act. A purposive sample was used to select thirty-seven (N= 37) career and technical education teachers from five Southern West Virginia vocational schools. The data collection instrument was a four- part questionnaire. The target population consisted of career and technical education teachers employed by West Virginia Department of Education during the 2004 – 2005 academic school year. The data suggest that professional development programs provided less than adequate provisions of NCLB to CTE teachers. It appears that selected CTE teachers were less than cognizant that the NCLB Act does not reduce local control of schools. In this study, the following demographic variables may serve as good predictors of CTE teachers' perceptions toward the impact of the NCLB Act: program area, age, years of teaching experience, level of education, and years of related work experience prior to teaching. Overall, career and technical education teachers' perceptions toward teacher quality and parental choices appeared to be mixed. On the other hand, CTE teachers were more likely to support local control and assessment provisions of the NCLB Act. Teacher educators and State Department of Education personnel should spend more time to address weaknesses of the NCLB Act as perceived by CTE teachers in this study.

Introduction and Conceptual Framework

The nature of work has changed dramatically in the last two decades. Space age technology depicted in the comics of the 1960s is not only a reality in today's society, but in many cases a necessity. Skills demanded of employees in a highly competitive global economy, driven by technology and knowledge, are radically different from past agrarian and industrial societies. The workforce has defined sectors with a full range of high-skill high-wage, low-skill low-wage employment (Harvey, 2004). Gordon (2000) suggested that technology and competitive globalization have created a new high-performance workplace and demand for workers with considerable more knowledge and technological skills than in past generations. These factors call for a more educated, skilled knowledge worker in the labor force. The reality of the new economy's workforce presets significant issues for those lacking education and basic skills (Carnevale & Desrochers, 2002). This fact is supported by wage trends for skilled labor. The National Assessment of Vocational Education (NAVE, 2002) stated that students joining the labor force out of high school need to have a strong foundation of academic skills (p. 14-15).

Career and technical education (CTE) is not immune from the provisions of NCLB, and should not view as applying to only elementary and secondary education. Phelps (2002) reported that past versions of the Elementary and Secondary Education Act (ESEA) are weak in the area of secondary education. While NCLB is still heavily focused on K-8, there are provisions that do not affect secondary education.

The need for higher literacy, numeracy, communication, and interpersonal skills in the workplace has grown over the past decade and will continual to grow (Brand, 2003).

Economic and labor market trends that will influence the federal government's role in career and technical education (CTE) include:

- The changing nature of work requires higher literacy, numeracy, and technical skill levels. Nearly half (46%) of all employers reported difficulty in hiring qualified workers during 2001, and close to a third (29%) believe they will experience difficulty in hiring in future years (Dixon, Duke, & Van Horn, 2002).
- More jobs now require some postsecondary education but not necessarily a 4-year degree (Brand, 2003).
- The labor market rewards those who take four or more occupational courses in high school (Bishop & Mane, 2003).
- While approximately 33 percent (National Center on Educational Statistics, 2001) of adults receive a bachelor's degree, the remainder needs other avenues and choices to gain the technical and occupational skills and further education to be successful in the workforce.

In addition to considering economic and labor market needs, the context for federal investment in CTE, particularly with regard to secondary education programs, is also influenced by the poor performance of many high schools. Problems at the secondary level have been chronicled by a number of reports, such as *Breaking Ranks: Changing an American Institution* of the National Association of Secondary School Principals; *High Schools of the Millennium* of the American Youth Policy Forum; *From the Margins to the Mainstream: Effective Learning Environments for Urban Youth* of Jobs for the Future; and *Raising over Sights: No High School Senior Left Behind* of the National Commission on the High School Senior Year.

In January 2002, President George W. Bush signed into law the No Child Left Behind Act (NCLB) of 2001, the reauthorization of the Elementary and Secondary Education Act (ESEA) of 1965. Many believe that NCLB represents the most sweeping national education reform legislation in decade. The U.S. Department of Education noted that NCLB based on the principles of increased flexibility and local control, stronger accountability for results, expanded options for parents, and an emphasis on effective teaching methods, scientifically proven to increase students' academic achievements.

Teacher Quality

The federal No Child Left Behind Act of 2001 requires that all teachers of core academic subjects be “highly qualified by the end of 2005-2006 school year”. To be considered highly qualified, a teacher must be fully certified in the subject(s) taught, have a bachelor's degree, and demonstrate subject area competence in a manner to be determined by the state. (Harris & Ray, 2004).

Under NCLB, states are required to ensure that all schools and districts meet the highly qualified teacher requirements. State intervention is required if sufficient progress is not made towards achieving 100 percent compliance by the 2006 deadline. In addition, districts are not required to hire only highly qualified teachers for programs that receive federal Title 1 funds, or they risk loss of that funding.

Choices for Parents

Parents of children in low-performing schools are given new options under No Child Left Behind. Parents with children in schools that do not meet state standards for at least two consecutive years may transfer their children to a better-performing public school, including a public charter school, within their district. If they do so, the district must

provide transportation, using Title 1 funds if necessary. Students from low-income families in schools that fail to meet state standards for at least three years are eligible to receive supplemental educational services, including tutoring, after school services, and summer school.

No Child Left Behind provides increased support to parents, educators, and communities to create new charter schools. Students who attend a persistently dangerous school or are the victim of the violent crime while in their school have the option to attend a safe school within their district.

Flexibility

Education Department officials who met with teachers and state local officials after NCLB went into effect found that most states had not been taking full advantage of the flexibility built into the law. For example, the alternative method for experienced teachers to demonstrate subject matter competency, known as HOUSE (High, Objective, Uniform State Standard of Evaluation), allows for current teachers to demonstrate subject-matter competency that recognizes the experience, expertise and professional training they have acquired during their years in the teaching profession (Reese, 2004).

Accountability

Holding states and communities accountable for their performance with regard to CTE programs is essential. The No Child Left Behind Act also provided the states with an important tool to create accountability structure at the secondary level (Brand, 2003). Career and technical education has attempted to respond to the call for higher academic standards in a number of ways over the past 20 years. Tech Prep emphasized academics in such areas as applied communications and contextual mathematics and physics. High

Schools That Work focused on eliminating the “general” track and the need to document students’ academic success in these programs. School-to-work and school-to-career attempted to create a better understanding of the growing sophistication of the American workplace and the need to connect education and work.

While the workplace has brought increasingly rigorous academic and technology-related skill requirements as criteria for career success, No Child Left Behind will bring enormous pressures from within the test driven education system to raise the proficiency standards of all students (Daggett, 2003). The NCLB legislation totals more than 1,400 pages. The salient points, however, are fairly straightforward. They are:

- By 2004-2005 all students must reach a specified proficiency level in reading, writing, and mathematics and soon thereafter in science.
- Beginning in 2002-03, schools were responsible to identify by selected subgroups (students with disabilities, limited English Proficient, by gender, ethnic minorities, low socioeconomic status, etc.) and demonstrate adequate yearly progress (AYP) for each subgroup for each of the next 12 years.
- Beginning in 2002-03, schools were responsible to identify selected subgroups (students with disabilities, limited English Proficient, by gender, ethnic minorities, low socioeconomic status, etc.) based on their achievement status and then demonstrate adequate yearly progress (AYP) for each subgroup for each of the next 12 years until they all achieve 100 percent proficiency. This proficiency will be measured in large part by satisfactory performance – including demonstrable improvement – on state tests in reading, writing, mathematics, and science.

- Any school that does not achieve AYP for all students two years in a row will face serious consequences from state and federal authorities.

Therefore, it is more essential than ever for career and technical education to be able to prove that it contributes not just to the applied workplace competency demands of business, but also to the academic proficiencies of served student population's state academic tests – if CTE is to remain a viable program in our secondary schools.

The No Child Left Behind Act of 2001 requires that all teachers receive state certification by the end of the 2005-06 school year. Waivers will no longer be allowed (Lazarus, 2003). Many states have recently implemented teacher licensure standards that use competency-based or performance-based models. The state standards are often aligned with standards set by national organizations for the preparation and licensure of teachers. Licensure standards can be used to measure whether teachers trained in either traditional programs or through alternative certification programs have needed skills and knowledge, but the unique needs of rural schools are seldom addressed in these policies (Ludlow, 1998). Forty-two states had state-approved standards in place for teacher licensure in 2000, with the remaining states in the process of developing standards (Council of Chief State School Officers, 2000).

West Virginia is one of the first states in the nation to receive full approval for its plan to reach the goals set forth by the NCLB Act. This accountability plan sets into place the methods by which the state will measure Adequate Yearly Progress (AYP), a cornerstone of NCLB (West Virginia Department of Education, 2004).

A review of the literature revealed a paucity of information regarding perceptions of career and technical education teachers toward the No Child Left Behind Act. If career and technical educators are to be accountable for implementing school reforms that have evidence for improving academic achievement, then it is imperative for educational researchers to address for this lack of empirical evidence. The focus of this study was to provide initial insight and baseline data on NCLB provisions relevant to CTE, outlining potential opportunities and challenges for West Virginia's policymakers.

Purpose and Objectives

The purpose of this study was to determine how career and technical education teachers (CTE) in West Virginia perceived the impact of the No Child Left Behind (NCLB) Act. The specific objectives of the study were:

1. To determine perceptions of CTE teachers in West Virginia regarding teacher quality of the NCLB Act.
2. To ascertain the perceptions of CTE teachers in West Virginia concerning parental choice and supplemental services of the NCLB Act.
3. To determine the perceptions of CTE teachers in West Virginia toward local control and flexibility concepts of the NCLB Act.
4. To describe the perceptions of CTE teachers in West Virginia regarding assessment and accountability as documented by the NCLB Act.
5. To determine relationships between career and technical education teachers' perceptions and selected demographic characteristics.

Methodology

The target population consisted of career and technical education teachers employed by West Virginia Department of Education during the 2004-2005 academic school year. Purposive sampling was used to select thirty- seven ($N=37$) career and technical education teachers from five Southern West Virginia vocational schools. Vogt (1999) stated that inferences about a population cannot legitimately be made using a purposive sample. On the other hand, purposive and quota sampling are often the only way to try to increase representativeness (p.227).

Based upon the review of literature, an instrument was developed by the researchers to collect data for this study. The first part of the instrument asked teachers to indicate the extent of their perceptions of teacher quality of the NCLB Act. Part II addressed parental choice and supplemental services of the NCLB Act. Part III assessed the views of local control and flexibility, and Part IV focused on the views of teachers toward assessment and accountability as documented by the NCLB Act.

Content validity of the instrument was assessed by a panel of experts in career and technical education. The instrument was field tested to determine clarity. Since responses are reported on an individual item basis, an estimate of the overall reliability of the instrument was not obtained (Borg& Gall,1983).

In order to develop a sampling frame, a current list of career and technical education teachers and their mailing addresses were requested from selected vocational education county directors.

Data Collection

The regional teacher educator of Southern West Virginia, administered the instrument during spring of 2005 at selected Faculty Senate meetings.

Data Analysis

Data were analyzed using the Statistical Package for the Social Sciences (SPSS Version 13.0 for Windows). Descriptive statistics were used to describe the distribution of the data. Correlation coefficients were interpreted utilizing Davis's (1971) descriptors (negligible =.00 to .09; low=.10 to .29; moderate =.30 to .49; substantial =.50 to .69; very strong =.70 to 1.00).

Results

The majority of the respondents, 54.1%, were male. The average age was 42 years with a range from 25 to 62 years.

In terms of educational level attained, respondents ranged from having some college education (37.80%) to a master's degree (20%). Six teachers (16.2%) reported having a bachelor's degree, and seven teachers reported having an associate's degree(18.9%).The number of years of work experience in public education reported by respondents ranged from 1 to 37 with a mean of 10.5 years. The 37 teachers who responded to the study, averaged 14.9 years of related work experience prior to teaching. Almost 50% of the respondents reported teaching students enrolled in both secondary and post secondary programs.

Respondents in this study were currently teaching in the following program areas: trade and industrial education, 48.6%; health education, 24.3%; and business education 10.8%. Six respondents (16.2%) reported teaching in "other" program areas.

Table 1 shows the means and standard deviations for 16 statements regarding CTE teachers' perceptions of the NCLB Act.

Insert Table 1 about here

Teacher Quality

Over 50% of the respondents favored the use of Perkins funds for NCLB teacher programs (train, recruit, and retain quality teachers). A majority (46%) of the teachers agreed that the NCLB Act hinders the job of teaching.

Nearly four-fifths of the respondents disagreed that only CTE teachers who teach core academic courses are required to meet the definition of a highly qualified teachers.

Majority of the CTE teachers (37.8%) disagreed that professional development programs prepare teachers to meet the provisions of NCLB.

Parental Choice and Supplementary Services

Over 60% of the responding CTE teachers disagreed that NCLB Act is perceived as a means of reducing pressure on struggling schools. A majority (57%) the respondents favored that parents of children in low performing schools are given new options under the NCLB Act.

Local Control and Flexibility

Over three- fifths of the respondents had favorable perceptions concerning the decision making authority of local school districts. On the other hand, CTE teachers reported a contradictory finding for statement 12 ($M= 3.67$).

Assessment and Accountability

Almost four-fifths of the respondents favored mandatory high school assessments. A majority (56.8%) of CTE teachers reported that incoming career and technical education students had less than average ($M=2.08$) preparation in the basic skills.

The Pearson product moment coefficient of correlation was conducted to draw relationships between interval variables. A significant and moderate ($r = .32$) relationship was observed between career and technical education teachers' perceptions of parental choice and program area.

Spearman rank correlations were calculated on the 16 statements of the instrument, and the demographic variables of age, years of teaching experience, highest level of education, and years of related work experience. The correlations are presented in Table 2.

Insert table 2 about here

A significant ($r = .35$) and moderate correlation was observed between respondents' perceptions of CTE students' preparations in the basic skills and age. Significant and moderate relationships were observed between years of teaching experience and reducing pressure on struggling schools, as well as Adequate Yearly Progress (AYP).

Local Control and Flexibility

Over three-fifths of the respondents favored/ agreed with local control and flexibility of the NCLB Act.

Assessment and Accountability

Almost four-fifths of the respondents favored mandatory high school assessments. A majority (56.8%) of CTE teachers reported that incoming career and technical education students are less prepared in the basic skills. CTE teachers perceptions regarding “hinders

the job of teaching” and level of education was significant and moderate ($r = .42$). A significant and substantial relationship was observed between teachers perceptions of “tough measures” and years of related work experience. The magnitude of the relationship was negative ($r = -.59$). Years of related work experience was also significant with CTE students’ level of preparedness ($r = .36$).

Discussion and Conclusions

It appears that what makes a teacher “highly qualified” under NCLB has led to much confusion for CTE teachers in this study. Reese (2004) reported that the term “ core academic subjects’ is defined in ESEA as English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, arts, history and geography.” It is a myth that the act requires all teachers to earn a bachelor’s degree as well as certification in every subject they teach. What it does require is for teachers of core academic subjects to have a bachelor’s degree and full state certification and to demonstrate content knowledge in every academic subject they teach (Reese, 2004). The data suggest that professional development programs provided less than adequate provisions of NCLB to CTE teachers in the five counties. Phelps (2002) reported that the teacher quality provisions of NCLB require that professional development for teachers and paraprofessional to be coordinated with other education programs (Section 11119 of title 1).

CTE teachers were less likely to support the provisions of the NCLB Act pertaining to the concepts “ reducing pressure on school, providing some relief until improvements can be made.” It appears that selected CTE teachers were less than cognizant that the NCLB Act does not reduce local control of schools. Career and technical education students’

level of preparedness was perceived as less than adequate by CTE teachers.

In this study, the following demographic variables may serve as good predictors of CTE teachers' perceptions toward the NCLB Act: program area, age, years of teaching experience, level of education, and years of related work experience prior to teaching.

Overall, career and technical education teachers' perceptions toward teacher quality and Parental choices, appeared to be mixed. On the other hand, CTE teachers were more likely to support local control and assessment provisions of the NCLB Act.

Recommendations

Based on the results of this investigation, the following recommendations are offered:

1. A replication of this study should be conducted with a larger sample size.
2. In- service and technical update sessions should be planned to assist teachers with selected provisions of the NCLB Act.
3. Greater emphasis needs to be placed on career and technical education administrations in disseminating NCLB information to CTE teachers.
4. Teacher educators and State Department of Education personnel should spend more time to address weaknesses of the NCLB Act as perceived by CTE teachers in this study.
5. A comparative study should be conducted to determine CTE administrators and teachers' perceptions regarding provisions of the NCLB Act.

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Table 1
Means and Standard Deviations for Statements Regarding Perceptions about the NCLB Act
(N=37)

Perception Statement	<u>M</u> ^{a,b,c}	<u>SD</u>
Teacher Quality:		
1. Only career and technical education teachers who teach core academic course are required to meet the definition of a highly qualified teacher . (a)	1.83	1.14
2. “ No child left Behind” shields teachers and officials, including school board members from frivolous lawsuits. (a)	2.05	1.10
3. The “ No Child Left Behind Act” hinders the job of teaching . (a)	3.13	1.29
4. Professional development programs of the counties prepare teachers to meet the provisions of NCLB . (a)	2.91	1.08
5. National teacher testing and certification should be required by the State. (b)	3.08	1.42
6. Perkins funds for the NCLB teacher program (train, recruit, and retain quality teachers) should be used. (b)	3.24	1.51
Parental Choice and Supplementary Services:		
7. Parents of children in low- performing schools are given new options under the “ No Child Left Behind Act” (b)	3.40	1.03
8. Under “ No Child left Behind “, tough measures “ kick in” after four years for schools that do not improve after a period of intensive assistance and extra help. (b)	3.40	1.23
9. In general, the “ No Child left Behind Act “ is perceived as a means of reducing pressure on struggling schools, providing some relief until improvements can be made.(a)	2.35	1.03
10. Overall, parental choice and supplemental services are “ consequences” for underachieving schools. (a)	2.83	1.19
Local Control and Flexibility:		
11. Increase local control of schools by providing new freedom and decision making authority to local school districts. (b)	3.59	0.95
12. The “ No Child left Behind Act “ reduces local control of schools. (a)	3.67	1.15
Assessment and Accountability:		
13. The State should require mandatory high school assessments (b)	4.00	0.91
14. Test data should be reported by race, income, and other criteria. (b)	3.05	1.52
15. A hallmark of the “ No Child left Behind Act” is an accountability mechanism called Adequate Yearly Progress (AYP). All students, including Career and Technical Education students, will be impacted by AYP. To what extent is your vocational school currently using AYP or accountability provisions in Perkins?. (c)	3.05	1.45
16. Are incoming career and technical students better prepared in the basic skills?. (c)	2.08	0.72

Note . Response scales:

^a1= strongly disagree; 2 = somewhat disagree; 3 = neither agree nor disagree; 4 = somewhat agree; 5= strongly agree.

^b1= strongly oppose; 2 = mildly oppose; 3 = neither oppose nor favor; 4 = mildly favor; 5 = strongly favor.

^c1= not sure; 2 = limited extent; 3 = some extent; 4 = much extent; 5 = considerable extent.

Table 2
Spearman Rank Correlations Between Demographic Variables and Responses to Statements Regarding the NCLB Act (N=37)

Perception Statement	Demographic Variables			
	Age	Years Taught	Highest Level of Edu.	Years of Related Work Exp.
1. Only career and technical education teachers who teach core academic courses are required to meet the definition of a highly qualified teacher.	.027	.052	.076	-.054
2. “ No child left Behind” shields teachers and officials, including school board members from frivolous lawsuits.	.036	.102	.109	-.030
3. The “ No Child Left Behind Act” hinders the job of teaching.	.217	-.057	.421**	-.114
4. Professional development programs of the counties prepare teachers to meet the provisions of NCLB.	-.196	.020	-.187	.184
5. National teacher testing and certification should be required by the State.	-.203	-.185	.118	-.018
6. Perkins funds for the NCLB teacher program (train, recruit, and retain quality teachers) should be used.	.146	-.012	.105	.002
7. Parents of children in low- performing schools are given new options under the “ No Child Left Behind Act”.	-.063	-.058	-.122	-.292
8. Under “ No Child left Behind “, tough measures “ kick in” after four years for schools that do not improve after a period of intensive assistance and extra help.	-.281	-.134	-.110	-.598**
9. In general, the “ No Child left Behind Act “ is perceived as a means of reducing pressure on struggling schools, providing some relief until improvements can be made.	.149	.389*	.074	.252
10. Overall, parental choice and supplemental services are “ consequences” for underachieving schools.	.302	.200	-.168	.083
11. Increase local control of schools by providing new freedom and decision making authority to local school districts.	-.021	.036	.002	.196
12. The“ No Child left Behind Act “ reduces local control of schools.	.068	-.043	-.058	.091
13. The State should require mandatory high school assessments.	-.128	.074	-.004	-.034
14. Test data should be reported by race, income, and other criteria.	.319	.078	.180	.161
15. A hallmark of the“ No Child left Behind Act“ is an accountability mechanism called Adequate Yearly Progress (AYP). All students, including Career and Technical Education students, will be impacted by AYP. To what extent is your vocational school currently using AYP or accountability provisions in Perkins?.	.065	.359 *	.162	.028
16. Are incoming CTE students better prepared in the basic skills?.	.356*	.309	-.291	.361*

Note.

* Correlation is significant at the 0.05 level (2 tailed)

** Correlation is significant at the 0.01 level (2 tailed)

