

## Christopher J. Zirkle

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### EDUCATION

- 1995                      Ph.D. in Comprehensive Vocational Education, Ohio State University, Columbus, Ohio. Specialization: Educational Leadership. Additional Areas of Study: Research/Statistics, Teacher Education/Professional Development
- 1990                      Ed.S. in Educational Leadership, Wright State University, Dayton, Ohio. Areas of Specialization: Curriculum and Instruction and Training/Development
- 1987                      M.S. in Personnel Counseling and Management, Wright State University, Dayton, Ohio.
- 1984                      M.A.E. in Technology Education, Ball State University, Muncie, Indiana.
- 1983                      B.S. in Education, Central State University, Wilberforce, Ohio. Areas of Study: Industrial Technology, Science.

### Teaching and Administrative Licenses (Ohio) – current through June, 2011

#### Teaching

Vocational, Trade & Industrial (Graphic Arts)  
K-12 Technology Education  
General Science

#### Coaching

Pupil Activity Validation

#### Administrative

Superintendent  
Assistant Superintendent  
Elementary Principal  
Secondary Principal  
Instructional Supervisor  
Vocational Supervisor

## EXPERIENCE SUMMARY

- Present Position      Associate Professor, College of Education and Human Ecology, Ohio State University, Columbus, OH. Teaching courses in Workforce Development and Education, Career and Technical Education, and Human Resource Development. Conducting research in career-technical education and distance education
- 2001-2007              Assistant Professor, College of Education, Ohio State University, Columbus, OH. Taught courses in Workforce Development and Education, Career and Technical Education, and Human Resource Development. Conducted research in career-technical education and distance education
- 1998-2000              Assistant Professor, School of Technology, Indiana State University, Terre Haute, IN. Taught courses in Career and Technical Education, Technology Education and Human Resource Development. Taught courses via distance education. Advised graduate/undergraduate students. Conducted research in career-technical education and distance education.
- 1997-98                Assistant Professor, University of Kentucky, College of Education, Dept. of Administration and Supervision, Lexington, KY. Taught graduate courses in Personnel Administration, Computer Applications for School Administration, Organizational Behavior and School Program Collaboration. Supervised Principal Interns. Conducted research in Educational Administration.
- 1994-97                Assistant Director, Fairfield Career Center, Carroll, OH. Responsible for management/supervision of instructional staff in trade/industrial education and applied academics. Administrator of program planning, curriculum and budgets. Coordinator for building safety/health/OSHA regulations. Responsible for building-wide discipline and attendance programs.
- 1991-1994              Vocational Graphic Arts Instructor (Trade and Industrial Education), Ohio Hi-Point Joint Vocational School, Bellefontaine, OH. Taught Junior and Senior vocational programs in Graphic Arts. Responsible for program planning, curriculum, budgeting and lab management/maintenance.
- 1992-94                Adjunct Industrial Trainer, Honda of America, Marysville, OH. Conducted technical training in Technical Math/Measurement and Blueprint Reading through a contractual agreement with Ohio Hi-Point JVS.
- 1990-91                Manager, Center for Human Resource Development, Clark State Community College, Springfield, OH. Acted as liaison between small businesses and government technical assistance networks. Designed customized training and development programs for business/industry.
- 1984-1990              Technology Education Teacher, Springfield City Schools, Springfield, OH. Taught Technology Education courses at middle/high school.

## PUBLICATIONS

### Monographs or Bulletins

#### Peer Reviewed:

Zirkle, C., Martin, L., & McCaslin, N.L. (2007). *Study of state certification/licensure requirements for secondary career and technical education teachers*. St. Paul: MN, University of Minnesota: National Research Center for Career and Technical Education.

Alfeld, C., Stone, J. R., Aragon, S. R., Hansen, D.M., Zirkle, C., Connors, J., Spindler, M., Romine, R. S., & Woo, H.J. (2007). *Looking inside the black box: The value added by Career and Technical Student Organizations to students' high school experience*. St. Paul: MN, University of Minnesota: National Research Center for Career and Technical Education.

Zirkle, C. (2003). *Distance education: The state of the art in career and technical education*. Columbus, OH: National Council for Workforce Education.

#### Contracted:

Logan, J., & Zirkle, C. (1998). *Kentucky tech prep: Serving all students through school, community and business partnerships*. Lexington, KY: Kentucky Department of Education.

### Chapters in edited books

#### Peer reviewed:

Zirkle, C., Fletcher, E., Sander, K., & Briggs, J. (2010). Certification and licensure requirements for career and technical educators. In V. Wang (Ed.), *Definitive Readings in the history, philosophy, practice and theories of career and technical education* (pp. 147-166). Hershey, PA: Information Science Reference - IGI Global.

Fletcher, E., & Zirkle, C. (2010). Career and technical education's role in alternative teacher licensure, In V. Wang (Ed.), *Definitive Readings in the history, philosophy, practice and theories of career and technical education* (pp. 103-124). Hershey, PA: Information Science Reference - IGI Global.

Fletcher, E., & Zirkle, C. (2010). Examining the impact of tracking on long-term student outcomes. In V. Wang (Ed.), *Definitive Readings in the history, philosophy, practice and theories of career and technical education* (pp. 191-214). Hershey, PA: Information Science Reference - IGI Global.

Zirkle, C., & Fletcher, E. (2009). Utilization of distance education in career and technical education teacher education. In V. Wang (Ed.), *The handbook of research on e-learning applications for career and technical education: Technologies for vocational training* (pp. 1-13). Hershey, PA: Information Science Reference - IGI Global.

Zirkle, C., & Fletcher, E. (2009). Access barriers experienced by adults in distance education courses and programs. In V. Wang (Ed.), *The handbook of research on e-learning applications for career and technical education: Technologies for vocational training* (pp. 444-454). Hershey, PA: Information Science Reference - IGI Global.

Fletcher, E., & Zirkle, C. (2009). Effects of No Child Left Behind on career and technical education. In V. Wang (Ed.), *The handbook of research on e-learning applications for career and technical education: Technologies for vocational training* (pp. 495-507). Hershey, PA: Information Science Reference - IGI Global.

Zirkle, C., Parker, E., & McCaslin, N. (2005). The changing state of career and technical education leadership development in the United States. In J. Gregson & J. Allen (Eds.), *Leadership in career and technical education: Beginning the 21st century* (pp. 63-94). Columbus, OH: University Council for Workforce and Human Resource Education.

Zirkle, C. (2000). Conducting a university human resource development degree program through multiple technology delivery modes: A case study. In L. Mealy & B. Loller (Eds.), *E-Learning: Expanding the training classroom through technology* (pp.149-155). Austin, TX: International Association for Human Resource Information Management.

Invited:

Zirkle, C. (2009). Distance education: The state of the art in career and technical education. In Rupert Maclean & David N. Wilson (eds.), *International handbook of education for the changing world of work: Bridging academic and vocational learning (UNESCO/UNEVOC)* (pp.2003-2018). Berlin: Springer Science & Business Media.

Zirkle, C. (2004). The school-to-work transition process of students in high school in the United States. In M. Terada (ed.), *The international comparison about career development and the mechanism of employment: Transition from school to work in Japan, Germany, the United States and the People's Republic of China* (pp. 218-238). Kyoto, Japan: Koyo-Shobo Publishing (Book was published in Japanese).

### **Bulletins and technical reports**

Zirkle, C. (2001). *Access barriers to distance education perceived by inservice and preservice career and technical education majors*. ERIC Document Reproduction Service No. ED473 768

Zirkle, C. (2001). *Using the Internet in trade and industrial education*. ERIC Document Reproduction Service No. ED455 390

Zirkle, C. (2000). *Conducting a university career and technical education degree program through multiple technology delivery formats: A working model*. ERIC Document Reproduction Service No. ED450 271

Zirkle, C., & Ourand, D. (1999). *Teaching a course through multiple delivery systems: Some lessons learned*. ERIC Document Reproduction Service No. ED435 800

King, A., & Zirkle, C. (1993). *Applied art in trade and industrial education*. ERIC Document Reproduction Service No. ED366 752

## Peer (Blind) Reviewed Journal Articles

Fletcher, E., & Zirkle, C. (in-press). The relationship of high school curriculum tracks to degree attainment and occupational earning, *Career and Technical Education Research*

Mosholder, R., & Zirkle, C. (2007). Historical trends of articulation in America: A review of the literature. *Community College Journal of Research and Practice*, 31 (9), 731-745.

Zirkle, C., Norris, C., Winegardner, A., & Frustaci, E. (2006). Distance education programming barriers in business education teacher education programs in the United States. *Career and Technical Education Research*, 31 (2), 101-118.

Kim, H., & Zirkle, C. (2006). The status of career and technical education and workplace opportunity for the disabled in South Korea: A literature review. *Workforce Education Forum* 33 (2), 33-48.

Zirkle, C., Brenning, J., & Marr, J. (2006). An Ohio model for articulated teacher education. *Community College Journal of Research and Practice*, (30), 501-512.

Zirkle, C., & Winegardner, A. (2005). A retention study of career-based intervention teachers in Ohio. *Journal of Career and Technical Education*, 22 (1), 55-68.

Randall, M., & Zirkle, C. (2005). [Information technology student-based certification in formal education settings: Who benefits and what is needed](#). *Journal of Information Technology Education*, (4), 287-306.

Zirkle, C. (2005). Web enhanced alternative teacher licensure. *The Teacher Educator*, 40 (3), 208-219.

Zirkle, C., Marr, J., & Brenning, J. (2005). 2+2 for teacher education: A tale of two large urban educational institutions. *Ohio Association of Two-Year Colleges Journal*, (30), 28-32.

Zirkle, C. (2004). Distance education programming barriers in career and technical teacher education in Ohio. *Journal of Vocational Education Research*, 29 (3), 157-179.

Zirkle, C. (2004). The school-to-work transition process of students in high school in the United States. *Bildung und Erziehung*, 57 (2), 195-213.

This is a journal published in Germany, translated *Education and Culture*, which is peer-reviewed, and focuses on education, social change, and international and intercultural comparisons.

Zirkle, C. (2004). Utilization of distance education in two-year colleges: Implications for technical education. *American Technical Education Association (ATEA) Journal*, 31 (2), 12-14.

Zirkle, C. (2003). Distance education and career and technical education: A review of the research literature. *Journal of Vocational Education Research*, 28 (2), 161-181.

Zirkle, C., & Connors, J. (2003). The contribution of career and technical student organizations (CTSO) to the development and assessment of workplace skills and knowledge: A literature review. *Workforce Education Forum*, 30 (2), 15-26.

Zirkle, C. (2002). Leadership in high schools: An examination of career and technical education. *The AASA Professor*, 25 (4), 22-26.

Zirkle, C. (2002). Utilizing the Internet and web enhancements in the preparation of technical instructors. *American Technical Education Association (ATEA) Journal*, 30 (1), 14-16.

Zirkle, C. (2002). Distance education and the trade and industry educator. *TechDirections*, 62 (4), 32-36.

Zirkle, C. (2002). Identification of distance education barriers for trade and industrial teacher education. *Journal of Industrial Teacher Education*, 40 (1), 20-44.

Zirkle, C. (2001). Access barriers in distance education. *Contemporary Education* 72 (2), 39-42.

Zirkle, C., & Cotton, S. (2001). Where will future leadership come from? On the status of career & technical education administration. *TechDirections*, 61 (5), 15-18.

Zirkle, C. (2000). Preparing technical instructors through multiple delivery systems: A working model. *T.H.E. Journal*, 28 (4), 62-68.

Zirkle, C. (1999). Is school-to-careers making the grade? *Academic Exchange Quarterly*, 3 (4), 115-119.

Zirkle, C., & Shoemaker, H. (1999, November-December). Indiana State's multiple delivery approach: Integrating industrial technology education with educational technology. *The Technology Source*. [Online]. Available: <http://horizon.unc.edu/Ts/cases/1999-11.asp>

Zirkle, C. (1998). Perceptions of vocational educators and human resource/training and development professionals regarding skill dimensions of school-to-work transition programs. *Journal of Vocational and Technical Education*, 15 (1), 50-62.

Zirkle, C. (1998). Vocational administration requirements, certification and preparation. *Journal of Vocational Education Research*, 23 (3), 239-251.

## Editor Reviewed Journal Articles

Zirkle, C. (2004). Integrating occupational and academic skills across the curriculum. *Techniques*, 79 (6), 24-26.

Zirkle, C. (2003). Course web site enhances classroom. *Kappa Delta Pi Record*, 39 (2), 91-93.

Zirkle, C. (2002). Using the Internet to enhance teacher education. *Techniques*, 77 (5), 24-25.

Zirkle, C. (2002). Creating a course web site to enhance on-campus instruction. *School of Physical Activity and Educational Services Instructional Enhancement Initiative*. [Online]. Available: [http://www.coe.ohio-state.edu/dgranello/teaching\\_initiative/spring%20newsletterII.pdf](http://www.coe.ohio-state.edu/dgranello/teaching_initiative/spring%20newsletterII.pdf)

Zirkle, C. (2002). Teacher bashing. *Techniques*, 77 (7), p.60.

Zirkle, C. (2000). An Internet guide to school-to-careers information. *Academic Exchange Quarterly*, 4 (2), p.125.

Zirkle, C. (2000). Distance education/technical education: Too far apart? *ATEA Journal*, 28 (1), p. 30.

Zirkle, C. (2000). Bringing IT into the classroom. *Techniques*, 75 (7), p.15.

Zirkle, C., & Guan, S. (2000). The journey into distance education. *Techniques*, 75 (5), 18-21.

- Zirkle, C. (2000). Preparing technical instructors through multiple delivery systems: A working model. *EDUTECH Report*, 16 (9), pp. 1, 3 6-7. (Reprinted from *T.H.E. Journal*, 28 (4), 62-68.)
- Zirkle, C. (1999). Successful school-to-careers practices. *Academic Exchange Quarterly*, 3 (2), p. 53.
- Zirkle, C. (1999). Don't just sit there, defend school-to-work. *Techniques*, 75 (1), p. 62.
- Zirkle, C. (1999). A primer on teacher liability. *Tech Directions*, 59 (1), 32-34.
- Walker, T., & Zirkle, C. (1999). Certifying T&I teachers. *Techniques*, 74 (5), p. 44.
- Zirkle, C. (1998). Vocational administrators: An endangered species? *Techniques*, 73 (1), p.74.

## Papers in Proceedings

### Invited:

Zirkle, C. (2003, October). *The school-to-work transition process of students in high school in the United States*. Paper presented at International Workshop for the Comparison on the Process and Mechanism of Career Development and Education, Nagoya, Japan.

### Refereed:

Fletcher, E., & Zirkle C. (2008, December). *Alternative teacher licensure reexamined: Addressing a misconception regarding Its conception*. Proceedings of the Career and Technical Education Research Conference, Charlotte, NC.

Zirkle, C., Norris, C., Winegardner, A., & Frustaci, E. (2006, November). *Distance education programming barriers in business education teacher education programs in the United States*. Proceedings of the Career and Technical Education Research Conference, Atlanta, GA.

Zirkle, C., Martin, L., & McCaslin, N.L. (2006, November). *Study of state certification/licensure requirements for secondary career and technical education teachers*. Proceedings of the Career and Technical Education Research Conference, Atlanta, GA.

Zirkle, C., Parker, E., & McCaslin, N.L. (2006, November). *Career and technical education leadership development*. Proceedings of the Career and Technical Education Research Conference, Atlanta, GA.

Zirkle, C., & Winegardner, A. (2005, December). *A retention study of career-based intervention teachers in Ohio*. Proceedings of the Career and Technical Education Research Conference, New Orleans, LA.

Kim, H., & Zirkle, C. (2005, December). *The relationship of career and technical education and workplace efficacy of the disabled in South Korea: A review of the literature*. Proceedings of the Career and Technical Education Research Conference, New Orleans, LA.

Kong, Y., & Zirkle, C. (2005, December). *The failure of early e-learning*. Proceedings of the 4<sup>th</sup> Asian Conference of the Academy of Human Resource Development, Taipei, Taiwan.

Kim, H., & Zirkle, C. (2005, October). *New pathways in the workplace and career technical education for the disabled in Korea*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus, OH. (abstracts of final papers were published)

Zirkle, C. (2004, October). *Access barriers experienced by adults in distance education courses and programs: A review of the research literature*. Indianapolis, IN: Proceedings of the Midwest Research-to-Practice Conference.

Zirkle, C. (2003, December). *Distance education and career and technical education: A review of the research literature*. Orlando, FL: Proceedings of the American Vocational Education Research Association, Annual Meeting at the Association for Career and Technical Education conference.

Zirkle, C. (2003, October). *Utilization of distance education in career & technical education: Current and future implications*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Columbus, OH. (abstracts of final papers were published)

Zirkle, C. (2001, December). *Access barriers to distance education experienced by preservice career and technical education majors*. Proceedings of the American Vocational Education Research Association Annual Meeting at the Association for Career and Technical Education conference, New Orleans, LA.

Zirkle, C. (2001, November). *Instructional quality in web-based learning: Some suggestions for success*. Paper presented at 3<sup>rd</sup> annual Technology Enhanced Learning and Research (TELR) conference. The Ohio State University, Columbus, OH.

## **Unpublished Scholarly Presentations**

### National

Zirkle, C., & Fletcher, E. (2007). *From alternative licensure to the Ph.D.: A strategy for developing quality CTE teachers*. Paper presented at the annual Association for Career and Technical Education conference, Las Vegas, NV.

Connors, J., Zirkle, C., Alfeld, C., Stone, J. R., Hansen, D.M., & Aragon, S. R. (2006). *Civic engagement and leadership development of career and technical student organization members*. Paper presented at the annual American Educational Research Association (AERA) conference, San Francisco, CA.

Alfeld, C., Stone, J. R., Hansen, D.M., Aragon, S. R., Zirkle, C., Connors, J., Spindler, M., & Woo, H.J. (2006). *The value added by career and technical student organizations to students' high school experience*. Paper presented at the annual American Educational Research Association (AERA) conference, San Francisco, CA.

Zirkle, C., & Brenning, J. (2005, December). *A community and technical college partnership for teacher preparation: The Ohio State model*. Paper presented at the annual Association for Career and Technical Education conference, New Orleans, LA.

Senger, B., & Zirkle, C. (2005, December). *Improving the academic success of urban appalachian CTE students*. Paper presented at the annual Association for Career and Technical Education conference, New Orleans, LA.

Randall, M., & Zirkle, C. (2004, December). *Deciding between vendor-specific and vendor-neutral information technology curriculum: Guidelines for administrators and teachers*. Paper presented at the annual Association for Career and Technical Education conference, Las Vegas, NV

Randall, M., & Zirkle, C. (2004, October). *Digital storytelling: A strategy for building community involvement and improving student participation and achievement through the use of multimedia*. Paper presented at the National School Boards Association Technology Teaching and Learning Conference.

Hall, H., Cotton, S., & Zirkle, C. (2004, October). *Alternative strategies for delivering teacher preparation*. Paper presented for the National Dissemination Center for Career and Technical Education, The Ohio State University, Columbus, OH

Benson, A., Johnson, S., & Zirkle, C. (2003, December). *Distance education's presence in career and technical education*. Paper presented at the annual Association for Career and Technical Education conference, Orlando, FL

Randall, M., & Zirkle, C. (2003, December). *Pre-packaged web-based curriculum and potential issues that merit concern*. Paper presented at the annual Association for Career and Technical Education conference, Orlando, FL.

Zirkle, C. (2003, March). *Using the Internet to improve technical teacher preparation & professional development*. Paper presented at the annual American Technical Education Association conference, Orlando, FL.

Zirkle, C. (2003, February). *Ohio career and technical teacher education and distance education*. Paper presented at the annual National Career and Technical Teacher Education Institute, Scottsdale, AZ.

Zirkle, C. (2002, December). *Connecting academics and technology in career and technical education*. Paper presented at the annual Association for Career and Technical Education conference, Las Vegas, NV.

Zirkle, C. (2002, December). *Safety and liability issues in trade and industrial education*. Paper presented at the annual Association for Career and Technical Education conference, Las Vegas, NV.

Zirkle, C., & Connors, J. (2002, December). *contributions of career and technical student organizations to the development and assessment of workplace skills and knowledge: A literature review*. Paper presented at the annual Association for Career and Technical Education conference, Las Vegas, NV.

Zirkle, C. (2002, June). *Distance education and career and technical education: A good match?* Paper presented for the National Dissemination Center for Career and Technical Education, The Ohio State University, Columbus, OH

Zirkle, C. (2001, December). *Utilizing the Internet in trade and industrial education*. Paper presented at the annual Association for Career and Technical Education conference, New Orleans, LA.

Zirkle, C. (2000). *Conducting a university trade and industrial education degree program through multiple technology delivery formats: A working model*. Paper presented at the annual Association for Career and Technical Education conference, San Diego, CA.

Zirkle, C. (1999). *Indiana's partnership for trade and industrial education*. Paper presented at the annual Association for Career and Technical Education conference, Orlando, FL.

## State

Briggs, J., & Zirkle C. (2009, July). *Perceptions of alternatively-licensed career and technical education teachers about teacher mentoring and teacher retention*. Paper presented at the annual Ohio Career and Technical Education conference, Columbus, OH.

Zirkle, C., & Davis, S. (2007, July). *CTE teacher licensure: Policies, procedures & pointers*. Paper presented at the annual Ohio Career and Technical Education conference, Cincinnati, OH.

Pinchak, G.J., & Zirkle, C. (2006, August). *Helping first year teachers: Needs, challenges and opportunities*. Paper presented at the annual Ohio Career and Technical Education conference, Cincinnati, OH.

Zirkle, C., & Hill, R. (2005, August). *Avoiding issues of liability: Developing a CTE classroom/lab handbook*. Paper presented at the annual Ohio Career and Technical Education conference, Cincinnati, OH.

Zirkle, C., & Brenning, J. (2005, August). *2+2 for teacher education: A tale of two large urban educational institutions*. Paper presented at the annual Ohio Career and Technical Education conference, Cincinnati, OH.

Zirkle, C. (2004, November). *Does DE + CTE = D<sup>2</sup>?* Paper presented as keynote speaker at the Tennessee Board of Regents, E-Learning Academy, Dickson, TN

Zirkle, C. (2004, May). *Distance education programming barriers in career and technical education teacher education in Ohio*. Paper presented at the Ohio Career and Technical Education Teacher Education Network Meeting, Columbus, OH.

Zirkle, C., & Moore, M. (2003). *Professional development through higher education*. Paper presented at the annual Ohio Adult Workforce Development (AWD) Instructors Conference, Columbus, OH.

Zirkle, C. (2002). *Using technology effectively in career and technical education programs*. Paper presented at the annual Ohio Career and Technical Education conference, Toledo, OH.

Zirkle, C. (2001, August). *The status of career and technical education administration: Where will future leadership come from?* Paper presented at the annual Ohio Career and Technical Education conference, Toledo, OH.

Zirkle, C. (2001, August). *Utilizing the Internet in trade and industrial education*. Paper presented at the annual Ohio Career and Technical Education conference, Toledo, OH.

Zirkle, C. (2000). *Career and technical education administrators: An endangered species?* Paper presented at the annual Indiana Association for Career and Technical Education Administrators Conference, Indianapolis, IN.

Zirkle, C. (1999). *The status of vocational education in Indiana*. Paper presented at the annual Indiana Vocational Association Annual Conference, Indianapolis, IN.

Zirkle, C. (1998). *The status of vocational administration in the United States*. Paper presented at the annual Kentucky Vocational Teacher Conference, Bardstown, KY.

## Funded Research

### Principal investigator

- i. *State Requirements for the Certification/Licensure of Secondary CTE Teachers (2006-07).*

The purpose of this study is to develop a nationwide database of certification/licensure requirements for career and technical education teachers. This is a U.S. Department of Education grant awarded via a subcontract through the University of Minnesota.

*Total grant award: \$55,070*

- ii. *The Value Added by Career and Technical Student Organizations (CTSO's) to Students' High School Experience (2004).*

The purpose of this study was to examine the immediate or long-term benefits of participation in Career and Technical Student Organizations (CTSO's) with respect to the development and assessment of employability skills or toward other indicators of student success. This was a U.S. DOE grant collaboration of Ohio State, The University of Illinois and the University of Minnesota. Co-PI was Dr. James Connors in the OSU College of Food, Agriculture and Environmental Sciences.

*Total grant award: \$23,797*

### Co-investigator

- i. *Profile and Evaluation of Career and Technical Education Programs in New Jersey High Schools (2004-05).*

The purpose of this study was to conduct an assessment of Career and Technical Education for the State of New Jersey, working in conjunction with the Rutgers University's Center on Workforce Development. Co-PI was Dr. Josh Hawley in the School of Physical Activity and Educational Services.

*Total grant award: \$108,484*

- ii. *Tech Prep Project (1998).*

This project was funded through the Kentucky Department of Education. The purpose of the research was to determine the academic achievement of participants in secondary Tech Prep programs relative to performance on SAT and ACT standardized tests. The project culminated in a monograph entitled *Kentucky tech prep: Serving all students through school, community and business partnerships*. Co-PI was Dr. Joyce Logan in the College of Education at the University of Kentucky.

*Total grant award: \$14,580*

## **Funded training grants**

### *Principal investigator*

- i. Ohio Career and Technical Education Teacher Education Capacity Building Grant (2009-2010)

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education in the School of Physical Activity and Educational Services.

*Total grant award: \$130,700*

- ii. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2008-2009)*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the College of Education and Human Ecology and the College of Food and Agriculture and Environmental Sciences.

*Total grant award: \$172,800*

- iii. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2007-2008)*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the Colleges of Education and Human Ecology and Food and Agriculture and Environmental Sciences.

*Total grant award: \$192,000*

- iv. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2006-2007)*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the Colleges of Education and Human Ecology and Food and Agriculture and Environmental Sciences.

*Total grant award: \$178,000*

v. *Associate Degree for Career and Technical Education teachers (2006).*

This project, funded through the Ohio Department of Education, was awarded to fund the development of an associate of arts degree at the OSU regional campuses, with a specialization in career and technical education. Meetings were held with the regional campuses and an AA degree was developed to meet new teacher licensure requirements for industry-based teachers in career and technical education programs.

*Total grant award: \$8,000*

vi. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2005-2006).*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the Colleges of Education, Human Ecology and Food, Agriculture and Environmental Sciences.

For 2005-06 a special focus centered on development of articulation agreements for licensure between Ohio's two-year colleges and OSU.

*Total grant award: \$178,000*

vii. *Articulation Partnership for Career Technical Teacher Licensure (2005-06).*

This project, funded through the Ohio Department of Education, is a continuation of a project begun in 2004, awarded to facilitate the development of transfer/articulation guides between the technical education programs at Columbus State Community College and the COE Bachelor of Science program in Technical Education. This grant focused on the development of articulation/transfer guides to allow students to complete an Associate of Science degree at Central Ohio Technical College, North Central State College and Rhodes State College in a technical field and transfer to OSU to complete a bachelor's degree.

Total grant award: \$20,205

viii. *Ohio Learning Network (2005).*

This project, funded through the Ohio Learning Network, was a planning grant designed to allow for planning and exploration of distance education opportunities for course and program delivery. Funding supported curriculum development, exploration of articulation, and collaboration between the Ohio State College of Education Workforce Development section and OSU branch campuses in Lima, Mansfield and Newark.

*Total grant award: \$10,000*

ix. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2004-2005).*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the Colleges of Education, Human Ecology and Food, Agriculture and Environmental Sciences.

For 2004-05 a special focus centered on the development of new licensure pathways for career and technical education teachers.

*Total grant award: \$160,000*

x. *Articulation Partnership for Career Technical Teacher Licensure (2004-05).*

This project, funded through the Ohio Department of Education, is awarded to facilitate the development of transfer/articulation guides between the technical education programs at Columbus State Community College and the COE Bachelor of Science degree program in Technical Education. The articulation/transfer guides will allow students to complete an Associate of Science degree at Columbus State in a technical field of study and transfer to OSU to complete requirements for a bachelor's degree.

*Total grant award: \$22,280*

xi. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2003-2004).*

This project, funded through the Ohio Department of Education, was awarded to facilitate the maintenance and growth of teacher education programs in career and technical education across the university.

A special focus of the grant for 2003-04 was on the development of strategies to assist teachers with the passage of the PRAXIS II Principles of Learning and Teaching. A one-credit independent study course for this effort was developed as a result.

*Total grant award: \$148,000*

Co-investigator

- i. Ohio Department of Education Career Pathways Implementation Project (2005-07).

The purpose of this project is to explain and amplify career-field pathways through the production of curriculum models that address the scope and sequence of courses/programs based on a) career field core and pathway/specialization competencies and b) embedded Ohio mathematics and English language arts content standards. The project also seeks to promote programmatic and instructional improvement in the rigor of career pathways through the development and dissemination of instructional resources/lessons that support integrated instruction of academic and technical content standards.

*Total grant award: \$1,200,000*

- ii. *Ohio Learning Network, Emerging Needs Grant (2003-05)*

This grant was awarded to address the critical shortage of school nurses, and to facilitate offering licensure courses on the Internet for potential and practicing school nurses. Funding will enable faculty in PAES to place school nurse licensure courses on the Internet.

*Total grant award: \$155,631*

- iii. *Ohio Career and Technical Education Teacher Education Capacity Building Grant (2002-2003).*

This project, funded through the Ohio Department of Education, is awarded to facilitate the maintenance and growth of teacher education programs in career and technical education.

A special focus of the grant for 2002-03 was on the development of partnership activities between the Colleges of Education, Human Ecology and Food, Agriculture and Environmental Sciences to enhance course offerings, resources and collaboration.

*Total grant award: \$185,000*