



**Programs of Study as a State Policy Mandate:**  
 A LONGITUDINAL STUDY OF THE SOUTH CAROLINA  
 PERSONAL PATHWAYS TO SUCCESS INITIATIVE

UNABRIDGED FINAL TECHNICAL REPORT (YEARS 1-5)  
 SEPTEMBER 2014  
 Executive Summary and Implications of Findings




**NATIONAL  
 DROPOUT  
 PREVENTION  
 CENTER / NETWORK**  
 SUPPORTING LEARNERS AND TRANSFORMING LIVES



**NRC CTE**  
 National Research  
 Center for Career and  
 Technical Education

**Programs of Study as a State Policy Mandate:  
A Longitudinal Study of the  
South Carolina Personal Pathways to Success Initiative**

**Final Technical Report (Years 1-5)**

Cathy Hammond, Cairen Withington, Julia Sharp, Catherine Mobley, Sam F. Drew, Samuel C. Stringfield, Natalie Stipanovic, Caroline Swiger, Lindsay Daugherty, and Cathy Griffith

**Executive Summary**

This executive summary outlines key findings from the final technical report of a five-year study conducted by the National Dropout Prevention Center (NDPC) at Clemson University, in conjunction with colleagues from the National Research Center for Career and Technical Education (NRCCTE) at the University of Louisville. This project was one of three NRCCTE studies intended to increase knowledge about Perkins IV-defined Programs of Study (POS) and their development; how best to organize a POS to meet the needs of students, parents, schools, and the community; and the impact of POS on student outcomes. This study examined a statewide K-16 school reform act, the *Personal Pathways to Success Initiative*, which was designed to focus on college and career readiness through a combination of high academic standards with career-focused education. The study's goals were to measure specific impact related to the state policy and the development of POS. This study examined the policy in its early implementation years and in the context of high school.

**Policy Framework**

South Carolina's *Personal Pathways to Success Initiative*, authorized under the state's Education and Economic Development Act (EEDA) in 2005, is a state-mandated school reform model designed to improve student achievement and better prepare students for postsecondary education and high-skill, high-wage, high-demand jobs. EEDA was designed to achieve these results through a focus on career awareness and exploration at all school levels and through the creation of locally relevant career pathways and programs of study for all students.

The Carl D. Perkins Act of 2006 (Perkins IV) is the fourth iteration of earlier federal Perkins laws focused on improving the quality of technical education within the United States. Perkins IV includes, among other elements, new requirements for POS that link academic and technical content across secondary and postsecondary education.

EEDA preceded Perkins IV but it required South Carolina schools to implement reforms that incorporate nearly all of the core and supporting components considered necessary for the successful development of Perkins IV-funded POS, as well as additional elements that could support and sustain the implementation of POS. For example, EEDA components include the organization of high school curricula around career clusters, an enhanced role for school counselors, and extra assistance for high-risk students. Further, the law mandates evidence-

based high school reform, regional education centers charged with facilitating business-education partnerships, and greater articulation between secondary and postsecondary education.

## **Study Design**

This five-year study investigated the extent to which a statewide reform mandate like the EEDA facilitates the creation of career pathways and POS (as defined in Perkins IV) in various high school contexts and whether these POS lead to improved student high school and postgraduation preparation and planning. This study also explored the influence of the availability of school and community resources and future employment opportunities—whether substantial or limited—on the development of POS and the outcomes of students enrolled in them.

The study employed a quasi-experimental design with a mixed-methods, triangulated approach (Tashakkori & Teddlie, 2002), following two student cohorts from a sample of eight high schools from economically and culturally diverse regions of South Carolina.

The school sample was carefully drawn through a four-stage sampling process and selected to vary on critical study factors: (1) employment opportunities and industrial mix, (2) local school and community economic conditions, and (3) initial levels of EEDA implementation. Data were collected from two cohorts of students selected because of their varying levels of exposure to the reforms mandated by EEDA: those who graduated in 2009 (who had little to no exposure to EEDA) and those who graduated in 2011 (with exposure to EEDA from the 8<sup>th</sup> to 12<sup>th</sup> grades).

## **Research Questions**

The study was structured around the following four research questions:

1. To what extent does South Carolina’s Education and Economic Development Act facilitate the development of Programs of Study (POS)?
2. What impact does the level of local economic resources have on the implementation of EEDA and the development and implementation of POS?
3. What impact does the implementation of EEDA have on:
  - a. student high school outcomes, and
  - b. student postgraduation preparation and plans?
4. What impact do POS as defined in Perkins IV have on:
  - a. student high school outcomes, and
  - b. student postgraduation preparation and plans?

## **Data Collection**

To create a broader understanding of EEDA’s influence on schools, teachers, students, and the creation of POS, a variety of quantitative and qualitative data were collected and analyzed.

Quantitative data included student outcome and survey data from the classes of 2009 and 2011 and survey data from guidance personnel. From the South Carolina Department of Education (SDE) statewide longitudinal data system (SLDS), we collected student and school-level longitudinal demographic, attendance and discipline data; 8<sup>th</sup> grade standardized test scores; course histories; and Individual Graduation Plan (IGP) data (including declaration of majors, intentions to complete majors, and postsecondary plans). From the SDE Office of Career and Technical Education (SDE CATE), we collected school-level data on state-recognized CTE programs and enrollment in these programs over the study period.

The student survey was developed in collaboration with researchers from NRCCTE's two other longitudinal POS studies. This *Student Engagement/POS Experiences Survey* covered a range of topics, including questions regarding career clusters, career planning and development, the development of IGPs, majors, coursework, school engagement, and demographic characteristics. The Class of 2009 was surveyed once, just prior to high school graduation and the Class of 2011 was surveyed twice, once following their 10<sup>th</sup> grade year and again just prior to graduation.

Guidance personnel were surveyed about their involvement in career-focused education and the development of student IGPs and about changes in their assigned duties since the implementation of the main elements of EEDA related to high school guidance responsibilities. The duties included those related to curriculum development and counseling and classroom guidance for students in the areas of career, academic, and social development; consulting with other school staff or parents; coordination activities related to special events and professional development; and "inappropriate" duties (based on EEDA guidelines), such as administering standardized tests and developing the master class schedule. Surveys were administered to guidance personnel in the fall of 2009 and the spring of 2012.

Qualitative data included perspectives gleaned from interviews and focus groups conducted with school principals, counselors, teachers, and students, as well as community college administrators. Content from course catalogs and other career-related materials was also analyzed. Three site visits to each school were conducted during the study period. The first was an initial visit to potential sample schools, in spring 2009, focused on the primary goal of understanding the level of ongoing EEDA activities at the school, and included interviews with school principals and guidance directors and focus groups with assistant principals, guidance personnel, and diverse groups of ninth and tenth grade teachers. The second on-site visits, in fall 2009, were geared toward collecting data on the development and implementation of POS and associations between POS and the state policy. During these visits, individual and focus group interviews were conducted with guidance personnel, curriculum coordinators, CTE coordinators and faculty, partner career center staff (where relevant), and partner college administrators and faculty. In-depth, follow-up phone interviews were conducted with school counselors in the spring of 2010, to further explore policy and POS implementation and the impact of these on their duties. A third site visit was conducted at each school in spring 2011 to conduct focus group interviews with the Class of 2011 as seniors. Additional phone interviews were conducted with school counselors in spring 2012.

In order to analyze these varied data sources and address our research questions, we constructed a number of contextual and analysis variables. We developed a scheme to score the level of policy implementation at each school that included the collection and analysis of relevant quantitative and qualitative data on the six most salient facets of EEDA related to high schools. A community poverty four-factor index for school-level analysis was developed to be able to score each school on level of community resources. Varied measures of programs of study were also constructed, based on quantitative (POS1, POS2, and POS3) data or a mixture of quantitative and qualitative data (POS4, POS5, and POS6).

In the process of developing the POS variables, we encountered a major challenge. At the time of our site visit interviews, many schools and districts were in the early stages of development of clusters and career majors, producing little consistency in majors and programs of study that would allow us to make comparisons across schools. As a result, data from various sources could not be linked on common program names and definitions. Also, the state policy we were studying encompasses more than just CTE courses and programs and requires the development of programs of study across the curriculum in all subject areas. We therefore needed to devise a method to select only those majors/programs that were strictly CTE since that was a study focus. In addition, once we identified majors/programs to review, we found that the elements of Perkins IV POS, as outlined in the Perkins law and supporting implementation materials provided by OVAE, were not sufficiently defined to allow for easy translation into direct measures for each element. This required the operationalization of the four core elements of Perkins IV-funded POS by the study team for our analysis.

## **Observations Across Sample Schools**

Overall, we found that EEDA was having some positive impact on schools, school administrators, guidance personnel, teachers, and students. Career-focused activities had increased at all schools and guidance personnel were playing major roles in policy implementation. But the evidence on associations between the policy and program of study development was mixed and/or contradictory. However, there was evidence that the policy was helping to facilitate some of the foundational elements for POS development.

One surprising finding was that at schools with more challenging economic situations, POS were more likely to be embraced and to be more fully developed than at other schools in more prosperous communities. This appeared to be related to a perception at these schools, that given the poor economic circumstances in their communities, their students could really benefit from clearer avenues toward careers and employment.

Similar mixed and/or contradictory results were found on associations between policy implementation and POS development and student outcomes. Students were found to be benefitting from these policies and POS but the types of benefits and the degree of benefit varied across schools and subgroups of students.

From our observations over the five-year period and analyses of these varied data sources, a number of overarching themes emerged that summarize the major trends found across

schools during the study period. These themes are briefly described below and at length in the full technical report.

## **Emergent Themes**

**Career-focused activities at all sample schools increased over the period of EEDA policy implementation.** Observations and data collected from schools indicate that the policy increased the amount and variety of career-focused activities and guidance at sample high schools, with school counselors playing key roles in providing these activities. The nature of the events and the types of career experiences they provided for students varied across schools.

**Initial increased funding and the addition of staff for the enhanced guidance model at schools helped launch implementation of the EEDA reform policy. Subsequent cuts in funding were reported to have slowed the program's progress and caused schools to make difficult choices relative to setting priorities for allocating scarce resources.** Initial site visits to schools provided data on myriad new activities being implemented and information being disseminated relative to the EEDA policy and its potential to benefit students, industry, the community, and beyond. But the recession brought challenges to schools in keeping up with implementation of policy initiatives. In spite of these challenges, however, some sample schools remained committed enough to career-focused education to sustain policy implementation at their schools.

**A broad range of resources is required for successful implementation of such a comprehensive reform policy.** Full implementation of such an ambitious and high-cost reform as the EEDA model requires a commitment to the provision of sufficient financial support for schools and consideration of economic realities. Not surprisingly, schools that had access to a wide variety of resources, such as having staff with prior knowledge of and experience with various policy areas or being located in a community with diverse local businesses willing to provide resources and educational opportunities for students, facilitated policy implementation. Most schools, however, were struggling to meet all the new mandates.

**Exposure to the EEDA policy benefitted students across our sample schools, even at schools with lower levels of policy implementation.** Students in all schools were benefitting in a variety of ways from implementation of the EEDA policy, particularly through the IGP process. The IGP process helped students get started with career planning, think about and develop future career goals, and then connect their coursework to these goals. For a majority of the students surveyed and interviewed across sample schools, this type of planning helped them to feel more engaged in school, less likely to want to drop out, and more motivated to make better grades.

**The EEDA policy increased awareness and knowledge of CTE at sample schools.** In large part due to the IGP process, the state policy increased school personnel and student awareness and knowledge of CTE courses and programs and their importance to programs of study. This increase in CTE awareness and the IGP process were also facilitating more

appropriate placement of students in courses based on interest and ability levels and reducing stigma attached to taking CTE courses at a number of sample schools.

**Components of the EEDA policy were helping to build some of the foundational elements and framework for the development and successful implementation of Perkins IV-defined programs of study.** Although we did not find many POS at sample schools that met all of the study-defined criteria for the Perkins IV core elements, our qualitative data revealed that components of EEDA were helping to build some of the foundational elements and framework considered necessary for the development and successful implementation of Perkins IV type programs of study. Various foundational elements were being put into place across our sample schools leading to the potential for the development of more programs of study in schools over time.

**The expanded Perkins IV model of programs of study is relevant across the curriculum, not just for CTE programs.** CTE program elements and the expanded Perkins IV model can direct career-focused education for all students, regardless of subject area. Linking secondary and postsecondary programs, providing contextual learning, building business and community partnerships to build programs of study and provide students work-based learning experiences, and emphasizing integration of rigorous academic and technical content are critical to all subject areas. In addition, CTE and non-CTE students and students at all performance levels need the benefits of career guidance and goal setting and being able to connect what happens in school to what comes after high school graduation.

**Building on existing programs and whole-school reform efforts helped to facilitate development and implementation of programs of study.** Having the ability to build on existing programs seemed to be particularly important to successful early policy implementation in sample schools and in the development of programs of study. This included building on existing CTE programs or other initiatives that shared complementary goals and/or established the structure and culture for success, such as the High Schools That Work and Smaller Learning Communities school reform models.

**Structured guidance for career planning and academic advisement was a critical underlying element for policy implementation and student participation in career planning and programs of study.** The strong emphasis on combining both career-focused guidance and academic advisement in EEDA and the requirements of the IGP process was fundamental to policy implementation. This career-focused guidance approach increased the depth and breadth of information that students received about their educational and career opportunities in career and technical fields and was an essential channel for dissemination of information to students on available programs of study. It also helped to promote CTE programs to students and engage parents in the course and career planning of their children.

**The Individual Graduation Plan and development process emerged as an essential component of policy implementation and the promotion of programs of study.** The development and maintenance of students' four-year IGPs emerged as an essential component of EEDA policy implementation and the promotion of programs of study in general. Guidance personnel, teachers, and students all pointed to IGP development as a valuable tool for career

counseling and planning and that it had facilitated increased counselor interactions with students on career and course-related issues, taught students ways of thinking about career planning, and helped to make it more likely that courses were related to students' interests and courses of study.

**School administration and staff buy-in was a key factor related to successful policy and programs of study implementation.** There was substantial variance in reports of initial school response to the EEDA career pathways model. Some schools immediately embraced the career pathways model while others seemed overwhelmed by the policy demands. While not the single most important factor, having buy-in by administrators and staff helped to facilitate policy implementation as well as POS development. At the two schools found to have POS meeting study-defined criteria for the Perkins IV core elements there was strong buy-in to the state policy from school administrators and staff.

**Quality, long-term partnerships and collaboration were keys to policy and programs of study implementation.** Partnerships appeared to be necessary to the development of POS but the key was the nature and strength of the partnership. The level of policy implementation at sample schools that were located in communities with diverse local businesses that were willing to partner with the school and provide a variety of resources, such as guest speakers, internships, and other work-based learning experiences for students, was often higher than at schools without access to these partners. Strong relationships between high school career centers and local community colleges were also critical to program of study development and instrumental in creating strong course alignment and smooth pathways into postsecondary training and education.

## **Implications of Findings**

Study findings suggest a number of implications for further research, for practitioners as well as for policymakers.

### **A. For Further Research**

- Conduct similar research in other states with similar comprehensive pathways reform policies, such as in Georgia, to compare results and trends.
- Follow students for two to four years after graduation or after dropping out, to assess the long-term influence of programs of study on postgraduation outcomes.
- Examine student data via a high risk assessment mechanism to measure the influence of programs of study on keeping students in school.
- Examine student data with more precise CTE program participant, concentrator, and completer status identified, to make connections between specific CTE programs, student levels of completion, and student outcomes.

- Explore the extent to which certain groups of students benefit more than others from these types of policies. We saw our high poverty schools focus on specific types of programs of study to help their students succeed as soon as possible after graduation. Did that result in better outcomes for those students? As compared to students from other schools? In addition, do students in certain types of programs of study have better outcomes?
- For any future research efforts, collect both quantitative and qualitative data to give a more comprehensive picture of implementation and influence of programs of study, as was done in this study.
- Research how work-based learning activities influence program completion, satisfaction, achievement, etc.
- Conduct further research on necessary professional development needed for counselors, teachers and administrators to be able to implement such a complex policy. Consider the High Schools That Work-type model that combines continuous professional development, data collection and review, and yearly advisement.
- Examine how effectively schools can implement programs of study with varying levels of financial support.
- Explore what specific institutional arrangements facilitate strong partnerships and what dimensions of those partnerships are associated with seamless secondary-postsecondary course alignment.
- Examine the extent to which a focus on programs of study can maintain NCLB's goals of providing students with increasing rigorous curricula and preparation for postsecondary education.

## **B. For Practitioners**

- Conduct standardized professional development on all aspects of the policy for all school personnel involved in overseeing and implementing the policy prior to and throughout policy implementation when implementing a complex reform like EEDA.
- Emphasize the importance of work-based learning activities for students' exposure to varied work environments and careers and making contacts for future jobs. Assign a coordinator to identify these opportunities for students.
- Encourage teachers to use real-world examples and relate subject content to real world jobs and experiences. This probably requires shared planning time among "academic" and "career and technical education" faculty members. The NRCCTE has one model for this, perhaps there are others.

- Implement an Individual Graduation Plan process and use the process to teach students planning skills and how to develop goals for their future.
- Establish a comprehensive guidance component to successfully implement quality career-focused programs of study. For most schools, this will require a re-allocation of resources.
- When developing programs of study across the curriculum, integrate CTE programs with other majors and programs into one shared system, use common names and CIP Code numbers, clearly outline the courses needed for the major/program of study, make sure that courses appear in the registration catalog and are clearly associated with specific POS, so that students, parents and counselors have sufficient information to develop IGPs for a particular POS.
- Encourage cross-curriculum integration through simple practices, such as common planning periods for CTE and academic teachers and allowing teachers to teach in close proximity to one another (i.e., in the section of the building). Co-teaching and joint projects help both CTE and subject teachers with skill development and relevance of course material. Such arrangements would allow for more formal cross-curricular planning to occur, as well as promote synchronicities that would not happen otherwise.
- View the IGP process as a viable way to facilitate discussions among staff related to programs of study and career majors. To increase integration, academic teachers and school counselors guiding students in the development of their course schedules and IGPs need to become more knowledgeable about CTE courses and programs. The IGP process can be a viable way to facilitate these discussions and increase school staff's knowledge of CTE.
- View the IGP process and career majors as a way to help students explore potential careers. Give students the opportunity to explore various careers of interest by allowing them to "try out" different majors. This means giving students the opportunity to switch majors and take courses across majors to identify what careers might be of interest to them or at least help them to eliminate areas not of interest to them.

### **C. For Policymakers**

- Develop clear metrics and definitions for implementation and assessment of outcomes. The Perkins IV policy identified four core elements, and then ten supporting components for programs of study, but did not operationally define them. Although it is important to provide flexibility for policy implementation, policies need to be specific enough and provide common, detailed descriptions of key policy facets so that practitioners have a clear idea of what to implement and how to assess whether implementation has been successful.
- Provide adequate funding to implement and continue the policy as planned. It is important for any state that is considering implementation of such a comprehensive

reform to do a careful analysis of available resources prior to attempting implementation. If adequate resources cannot be directed toward implementation throughout the period of time that the policy will be in place, then such a comprehensive policy should not be attempted. While no one can predict economic downturns with absolute certainty, without adequate funding and support for all aspects of the policy, it is unlikely that a policy such as the EEDA can result in consistent, positive results across schools. If a guidance component that includes an Individual Graduation Plan (IGP) process will be implemented as a part of a Programs of Study model, it is essential that adequate resources be made available to hire additional staff to handle administrative and other duties so that school guidance personnel can concentrate their efforts on career-focused activities and IGP development.

- Require career guidance education for teachers and guidance counselors. EEDA requires that students in teacher education programs at state colleges and universities be trained to some degree in career guidance. This includes the training of school counselors in preparing the full range of students for career opportunities. We did not measure this part of the EEDA policy since it was occurring at the postsecondary level and we focused on policies playing out in high schools. However, we believe that this career guidance training requirement will have a ripple effect in secondary schools over time. The lack of this training by counselors and teachers was evident in our early site visits. Many teachers and counselors too were taking on the responsibilities of training themselves to some degree as they could see the need to possess skills and information in this area. This element would be important for policymakers to consider.
- Implement the policy in stages. Given the findings at our schools, it is important to consider implementation of such a comprehensive policy one step at a time and ensure that all of the following are a part of policy implementation:
  1. Get buy-in of major stakeholders during the development of the policy and prior to implementation;
  2. Focus the first year on planning for implementation and continuing to get buy-in from stakeholders;
  3. Provide adequate guidelines, materials, and curricula necessary to implement the program to school staff and teachers;
  4. Make sure to offer adequate, quality training in the first year for all involved, including district and school administrators, guidance personnel, teachers, and parents,
  5. Remembering that turnover in the administration, guidance, and teaching corps are inevitable, and that ever deeper training is invaluable, continue to support professional development over subsequent years;
  6. Provide ongoing training and technical assistance throughout policy implementation directly to schools to ensure fidelity to guidelines and quality implementation;
  7. Provide sufficient funding and resources for ALL aspects of the policy, not just some aspects, throughout the implementation period; and
  8. Build in annual assessment and evaluation that can provide feedback to schools about areas where implementation is going well and areas that need improvement.

- Ensure that all relevant state, district and/or local administrative levels are working cooperatively to develop, plan, and implement the policy, so that all aspects of policy implementation are coordinated and integrated. Develop a statewide coordinating council that includes all stakeholders to oversee policy development and implementation. Administrative offices that need to develop and oversee aspects of the policy also need to coordinate their efforts. For policies similar to EEDA, this would include state and district administrators in CTE, curriculum, and guidance personnel divisions at both the K-12 and higher education levels.
- Reevaluate the weighting of courses for GPA and class ranking calculations. Implementation of programs of study across the curriculum will require reconsideration of the types of credits CTE courses earn so that college-bound students aren't penalized for taking CTE courses. Although CTE courses may require high level skills and contain advanced content/college prep level content, CTE courses are less likely to earn honors or Advanced placement credit or to be dual credit courses. Schools and districts may also want to encourage both Advanced Placement courses and dual credit courses.
- Improve the quality of student-level data to better study the influence of these types of reform. This requires that districts and/or states merge databases of core academic and CTE courses and outcomes to allow tracking of students across districts and states, and across academic levels and relevant agencies, to adequately evaluate progress on programs of study and any impact these may have on student dropout and other outcomes. Mobility of students and lack of coordination among relevant agencies can make the participation of students in majors and programs of study difficult to track.

## **New Blueprint for Transforming Career and Technical Education**

As a final post study note, in April 2012, the Obama Administration laid out a new blueprint to strengthen the American economy as being “built on American manufacturing, American energy, skills for American workers, and a renewal of American values” (U.S. Department of Education, 2012, p. 1). Prerequisites to the development of this new strengthened economy are quality postsecondary education and training systems that address the need to “ensure that more of our nation’s young people and adults can afford, access, and complete postsecondary education and training to earn an industry certification or licensure and a postsecondary certificate or a degree” (U.S. Department of Education, 2012. p. 1) to be prepared to participate in this economy. A key to this system is a transformation of career and technical education (CTE), going beyond the changes introduced by Perkins IV to a broader vision and reform of CTE. This transformation of CTE is centered on four core principles:

1. **Alignment.** Effective alignment between high-quality CTE programs and labor market needs to equip students with 21st-century skills and prepare them for in-demand occupations in high-growth industry sectors;
2. **Collaboration.** Strong collaborations among secondary and postsecondary institutions, employers, and industry partners to improve the quality of CTE programs;

3. **Accountability.** Meaningful accountability for improving academic outcomes and building technical and employability skills in CTE programs for all students, based upon common definitions and clear metrics for performance; and
4. **Innovation.** Increased emphasis on innovation supported by systemic reform of state policies and practices to support CTE implementation of effective practices at the local level. (U.S. Department of Education, 2012. p. 2)

The EEDA policy in South Carolina is highly compatible with these principles and we believe that research such as ours has contributed to some portions of the refinement of Perkins IV that this blueprint represents.

Through collaboration with local businesses and local technical colleges, through a variety of avenues, such as CTE program advisory councils for various CTE programs and Regional Education Centers, we found that a number of programs at our eight sample schools were being developed to align with local labor force needs, from input from business partners, and to meet the skill and expertise needs of particular local companies. Many of these businesses were working with teachers to ensure that curriculum developed met industry standards. Emerging high skills and high demand occupations, whether there were local employment opportunities at present or not, were also receiving focus for program development. To improve accountability, the state has been implementing Core Standards for all CTE courses, and Common Core State Standards are being adopted for all core academic courses for all students. All of this is being attempted through systemic reform of state policies and practices.

\*\*\*\*\*  
 Suggested citation for this Executive Summary: Hammond, C., Withington, C., Sharp, J., Mobley, C., Drew, S. F., Springfield, N. S., . . . Griffith, C. (2014). *Programs of study as a state policy mandate: A longitudinal study of the South Carolina Personal Pathways to Success Initiative* (Unabridged Final Technical Report Years 1-5, Executive Summary and Implications of Findings). Retrieved from National Dropout Prevention Center/Network Web site: [www.dropoutprevention.org/publications/research-reports/personal-pathways](http://www.dropoutprevention.org/publications/research-reports/personal-pathways)

The unabridged version of the full final technical report including all appendices can be downloaded from the National Dropout Prevention Center/Network (NDPC/N) Web site with suggested citation: Hammond, C., Withington, C., Sharp, J., Mobley, C., Drew, S. F., Springfield, N. S., . . . Griffith, C. (2014). *Programs of study as a state policy mandate: A longitudinal study of the South Carolina Personal Pathways to Success Initiative* (Unabridged Final Technical Report Years 1-5). Retrieved from National Dropout Prevention Center/Network Web site: [www.dropoutprevention.org/publications/research-reports/personal-pathways](http://www.dropoutprevention.org/publications/research-reports/personal-pathways)

An abridged version can be downloaded from the National Research Center for Career and Technical Education (NRCCTE) Web site at [www.nrccte.org](http://www.nrccte.org): Hammond, C., Drew, S. F., Withington, C., Griffith, C., Swiger, C., Mobley, C., . . . Daugherty, L. (2013, April). *Programs of study as a state policy mandate: A longitudinal study of the South Carolina personal pathways to success initiative* (Technical Report). Louisville, KY: National Research Center for Career and Technical Education, University of Louisville.

Links to other publications related to this study may also be found at the NDPC/N Web page [www.dropoutprevention.org/publications/research-reports/personal-pathways](http://www.dropoutprevention.org/publications/research-reports/personal-pathways)



**NATIONAL  
DROPOUT  
PREVENTION  
CENTER / NETWORK**

AT CLEMSON® UNIVERSITY  
SUPPORTING LEARNERS AND TRANSFORMING LIVES

P: 864-656-2599

209 Martin Street, Clemson, SC 29631-1555

F: 864-656-0136

✉ [ndpc@clemson.edu](mailto:ndpc@clemson.edu)

🌐 [www.dropoutprevention.org](http://www.dropoutprevention.org)