



Diversity and Inclusion in Apprenticeship Expansion

Lessons from South Carolina

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Registered apprenticeship is uniquely positioned to build the skills of low-income workers and move them into high-quality jobs. The registered apprenticeship model combines on-the-job training and mastery of core occupational competencies with related classroom-based instruction for apprentices that are productively employed by an apprentice “sponsor.” Unlike a traditional college education, apprenticeship gives workers the opportunity to earn a wage while they build their skills, with little if any cost to the apprentice for the classroom training component. These features make registered apprenticeship potentially appealing for low-income workers with family obligations who cannot take on large debts or give up working while building their skills.

The Trump administration, like the Obama administration before it, has made strong commitments to expanding registered apprenticeship training. A frequently cited goal is an expansion to 5 million active apprentices in five years,¹ which would bring the US closer to parity with peer economies that make heavy use of apprenticeship, such as the UK and Germany. However, apprenticeship training in the US has a long history of racial and gender disparities. These disparities were illustrated vividly 50 years ago in Marshall and Brigg’s 1967 book on African American experiences with apprenticeship, and they have continued to be a concern to the Department of Labor.² In light of these historical disparities, apprenticeship expansion should not be pursued at the expense of equity. We know little about how expansion policies affect diversity relative to current levels. A singular policy focus on rapidly expanding apprenticeship risks overlooking the more difficult work of guaranteeing diversity and inclusion in registered apprenticeship programs.

This brief investigates South Carolina’s apprenticeship expansion initiative to explore potential trade-offs between equity and expansion. In 2007, the state launched Apprenticeship Carolina, a major effort to expand apprenticeship that included tax incentives, marketing apprenticeship to employers, and technical assistance for apprentice sponsors. South Carolina’s experience suggests that rapid

growth in apprenticeship training need not come at the expense of racial and ethnic diversity, although it may not improve it either. The expansion effort has been associated with a substantial improvement in gender equity across all apprenticeship programs, a result of introducing apprenticeship into retail and health care occupations where women are traditionally well represented. Gender inclusivity appears to be a natural consequence of expansion into occupations where gender disparity is less of a problem. Policymakers should thus focus on opening up traditional apprenticeship occupations, those with more persistent disparities, to people of color and especially women.

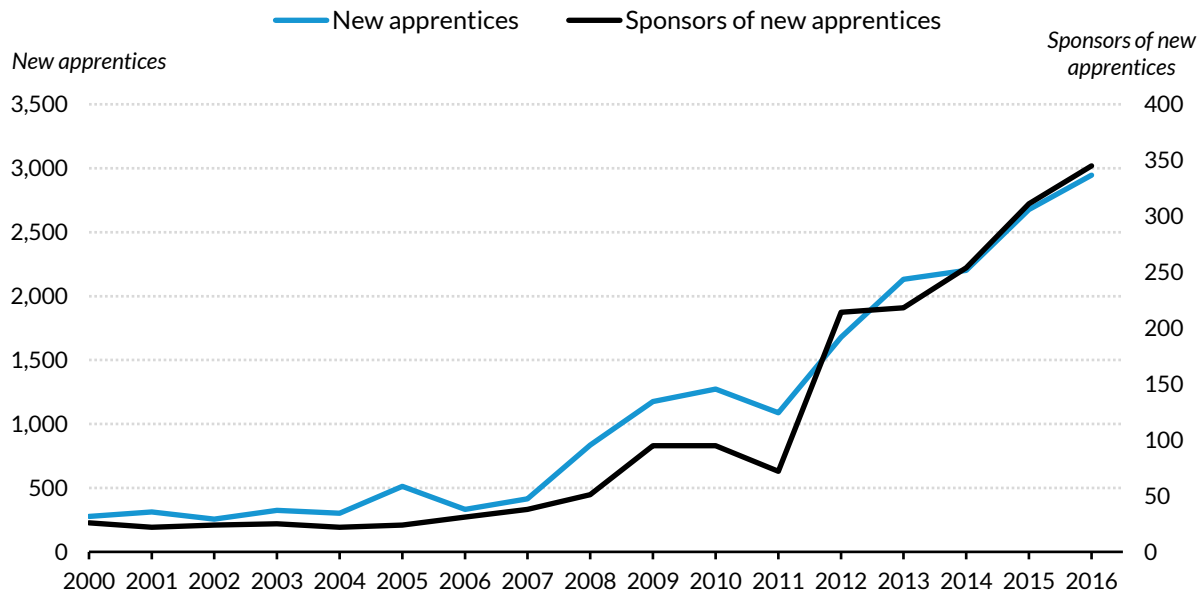
Apprenticeship Expansion in South Carolina

Apprenticeship expansion in South Carolina was promoted by the state Chamber of Commerce through a widely circulated white paper, advocacy within the state's technical college system, and promotion with other state partners (Hays 2003; Stieritz 2009). In 2007, these efforts resulted in the state legislature appropriating \$1 million a year to fund the initiative's small staff. The legislature also approved an employer tax credit worth \$1,000 per apprentice. Apprenticeship Carolina staff members market apprenticeship directly to employers, starting the conversation with questions about their training needs and then working with them to determine how to design an apprenticeship program that will build their employees' skill levels. Staff are flexible in their approach to program design, which can be shorter than traditional apprenticeships and incorporate a competency-based framework that measures progress by the number of competencies mastered rather than time in training. The \$1,000 tax credit, although not a decisive factor for employers, was an important incentive for them to spend meaningful time discussing the options and opportunities available (Lerman 2013).

Figure 1 presents the number of new apprentices registered in South Carolina (left axis) and the number of apprenticeship sponsors responsible for registering new apprentices (right axis).³ These figures differ somewhat from those reported by the state because they are restricted to apprentices registered with the federal Office of Apprenticeship. Despite its relatively modest budget, Apprenticeship Carolina generated a six-fold increase in new apprentices, from 415 registered in 2007 to 2,946 in 2016. Lerman (2016) notes that this growth is especially impressive in light of the weak labor market during the early years of the initiative. In addition to expanding the number of apprentices hired, Apprenticeship Carolina attracted new apprenticeship program sponsors, increasing the number of sponsors actively registering new apprentices from 38 in 2000 to 345 in 2016. Because these new sponsors adopted apprenticeship in a fundamentally different policy environment than older, more established sponsors, it is critical to assess their performance on diversity and inclusion outcomes separately.

FIGURE 1

New Apprentices and Sponsors of New Apprentices in South Carolina, 2000–16



Source: Author’s calculations from Registered Apprenticeship Partners Information Data System data. These figures differ from those reported by the state of South Carolina because they are restricted to apprentices registered with the federal Office of Apprenticeship and to programs actively registering new apprentices.

Apprenticeship Carolina’s Experience with Diversity

Data on registered apprenticeship in South Carolina come from the Registered Apprenticeship Partners Information Data System (RAPIDS), a federally operated information management system for the 25 states where registered apprenticeship is managed by the Office of Apprenticeship and the 8 additional states where registered apprenticeship is managed by a State Apprenticeship Agency that uses RAPIDS for data management. Apprenticeship in South Carolina is managed by the State Apprenticeship Agency and uses the RAPIDS database. The RAPIDS database includes over 1.5 million registered apprentices and over 50,000 registered apprentice sponsors dating back to 1999.

Table 1 provides details on the racial and ethnic makeup and female share of apprentices registered in South Carolina in 2016. Data on race and ethnicity are constrained by what is available in the RAPIDS database, and a large number of apprentices do not report a race or ethnicity.

TABLE 1

Racial/Ethnic and Gender Distribution of New Registered Apprentices in 2016

| | South Carolina | | All RAPIDS States | |
|--------------------------------------|----------------------------|--------------------------------|----------------------------|--------------------------------|
| | New registered apprentices | Share reporting race/ethnicity | New registered apprentices | Share reporting race/ethnicity |
| Race/ethnicity | | | | |
| White | 1,224 | 54.2% | 60,220 | 58.3% |
| Black | 897 | 39.7% | 14,507 | 14.0% |
| Hispanic | 91 | 4.0% | 23,856 | 23.1% |
| Native American | 23 | 1.0% | 1,198 | 1.2% |
| Asian | 10 | 0.4% | 1,872 | 1.8% |
| Native Hawaiian and Pacific Islander | 14 | 0.6% | 1,710 | 1.7% |
| Unknown race or ethnicity | 687 | N/A | 10,626 | N/A |
| Gender | | | | |
| Female | 973 | 33.0% | 8,017 | 7.0% |
| Male | 1,973 | 67.0% | 105,971 | 93.0% |

Source: Author's calculations from Registered Apprenticeship Partners Information Data System data.

Over half of the new apprentices in South Carolina that report a race or ethnicity are white. The largest non-white group is black apprentices (39.7 percent), with smaller shares of Hispanic (4 percent) and Native American (1 percent) apprentices. South Carolina has a higher share of black apprentices and lower share of Hispanic apprentices relative to other RAPIDS states, which reflects state demographics. According to 2016 Census Bureau estimates, 68.5 percent of South Carolinians are white, 27.5 percent are black, 5.5 percent are Hispanic, and 0.5 percent are Native American.⁴

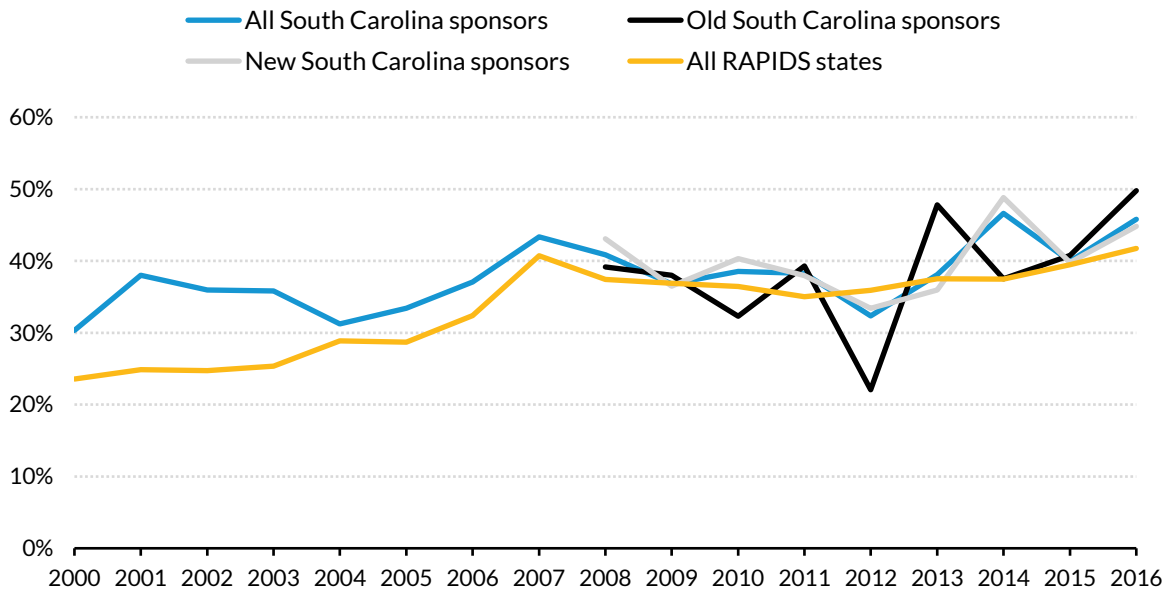
About one-third of registered apprentices in South Carolina in 2016 were women, almost five times the share of women in apprenticeships nationwide. Though women still make up a minority of apprenticeships, the jump in their representation is remarkable. The stronger performance in South Carolina no doubt is linked to the broadening of apprenticeship beyond construction occupations.

Race and Ethnicity

Figure 2 presents time trends in the share of new registered apprenticeships held by people of color (all nonwhite apprentices) from 2000 to 2016. These trends illustrate the impact of Apprenticeship Carolina on diversity and inclusion. The share of people of color among the population of new apprentices is reported in blue. To illustrate differences in diversity across all apprenticeship programs created as part of Apprenticeship Carolina and programs registered before the initiative, the shares of people of color among apprentices registered with old sponsors and new sponsors are reported separately after 2007 (in black and gray, respectively). Finally, the share of people of color among all newly registered apprentices in the 33 states that use the RAPIDS database is presented in gold.

FIGURE 2

Share of New Apprenticeships Held by People of Color in South Carolina, 2000–16



Source: Author’s calculations from Registered Apprenticeship Partners Information Data System data.

The representation of people of color in new apprenticeships in South Carolina after 2007 closely tracks the trend for all RAPIDS states, with somewhat stronger average performance in recent years. Although Apprenticeship Carolina does not appear to have driven strong growth in the representation of people of color, there is no evidence that diversity and inclusion is harmed by expanding registrations, as the initiative appears to have reproduced national trends in diversity in apprenticeship.

Figure 2 also distinguishes between apprentices registered with programs that began after 2007 through Apprenticeship Carolina (in gray) and those that began before the expansion effort (in blue). Sponsors who registered their apprenticeship programs under Apprenticeship Carolina did not substantially differ from programs already operating before 2008 on measures of racial and ethnic diversity, and both groups track national trends fairly closely. Apprenticeship Carolina did not seem to attract new sponsors with more diverse apprenticeship programs, nor did it induce South Carolina sponsors to perform notably better on racial and ethnic diversity than sponsors nationwide. However, it also did not result in a deterioration of diversity relative to national trends.

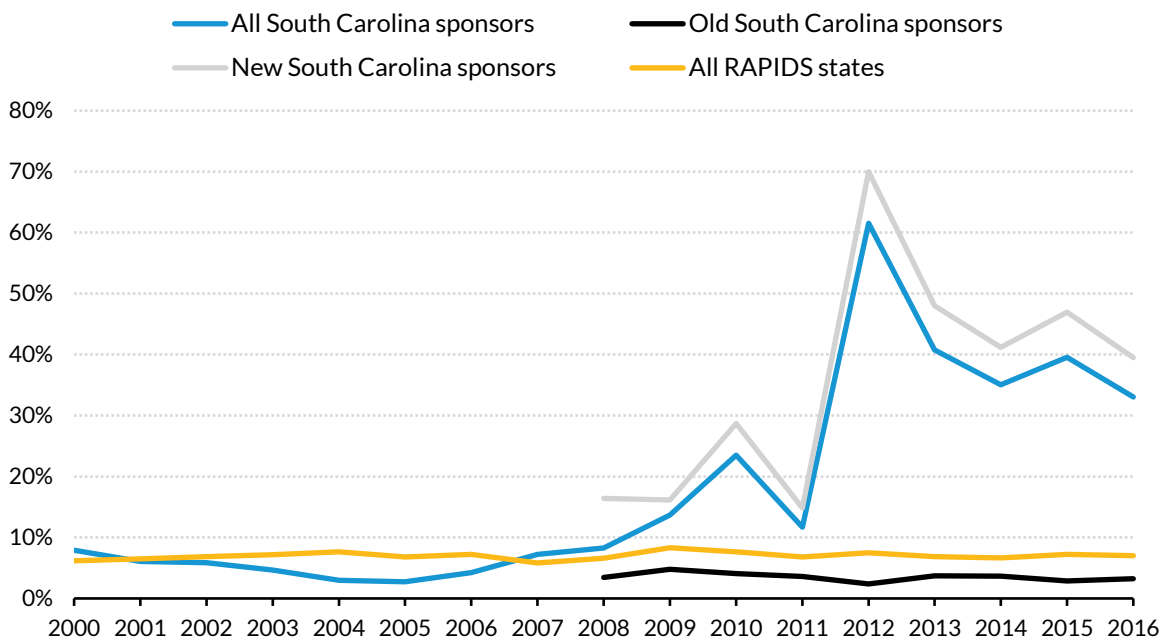
Gender

Women’s experiences with apprenticeship under Apprenticeship Carolina, documented in figure 3, were starkly different than the experiences of people of color. Before Apprenticeship Carolina, less than 10 percent of apprentices in the state were women. This low participation rate aligns closely with the experiences of women in other states. After 2007, women’s share of newly registered South Carolina

apprenticeships increased steeply, peaking at over 60 percent in 2012. That spike was driven by the new registration of several hundred pharmacy support staff apprentices by new CVS pharmacy sponsors. These jobs bode particularly well for gender inclusivity in apprenticeships in the state because pharmacist jobs are “among the most egalitarian of all US professions today” (Goldin and Katz 2016), with low gender pay gaps, low pay dispersion, and family friendly scheduling policies. Women’s share of new apprenticeships in the state eventually stabilized at just under 40 percent.

FIGURE 3

Share of New Apprenticeships Held by Women in South Carolina, 2000–16



Source: Author’s calculations from Registered Apprenticeship Partners Information Data System data.

At least two underlying realities of race, gender, and labor markets underpin the differences between the experiences of women and people of color. First, women’s representation in apprenticeship was always much lower than their share of the population, so there was more “room to grow” for women under Apprenticeship Carolina than there was for people of color. Second, occupational fields are highly segregated by gender in the United States, with some fields being traditionally male or traditionally female. As a result, introducing apprenticeship to traditionally female occupations (e.g., health care) could result in rapid growth in registration rates among women over a short period of time (Lerman, Eyster, and Kuehn 2014). This is illustrated in figure 3 by the difference in new female apprentices employed by newer South Carolina sponsors (gray) and older sponsors (black). Newer sponsors, representing a more diverse set of occupations, hired women at much higher rates than older sponsors, who were even less likely to employ women as apprentices than sponsors in other RAPIDS states generally.

Discussion

Policymakers have already taken many steps to combat disparities in apprenticeship. The Apprenticeship Carolina experience helps establish which of these efforts might be most useful for ensuring diversity and inclusion. This section first reviews current federal efforts to promote diversity and inclusion, then draws lessons for these policies from the Apprenticeship Carolina experience, which did not incorporate any explicit diversity and inclusion component.

Any assessment of current and future policy should recognize that diversity and inclusion in registered apprenticeship is a much broader issue than diversity in apprentice registration, which is the focus of this brief. Other key areas of concern are pay and completion rate disparities and occupational segregation. Although the analysis of gender equity suggests the importance of occupational segregation, a more detailed understanding of trends in occupational segregation would require analysis at the sponsor level rather than the state level.

Current Federal Efforts to Promote Diversity and Inclusion

Federal action to promote diversity in registered apprenticeship goes back to a 1961 executive order prohibiting discrimination based on race and ethnicity in hiring apprentices.⁵ In 1971, gender was added as a protected class, and large apprenticeship sponsors were required to have a written affirmative action plan for racial and ethnic minorities.⁶ Affirmative action plans were required for women beginning in 1978.⁷ No further changes were made until 2016, when an updated set of rules were put into effect expanding nondiscrimination requirements to age, genetic information, sexual orientation, and disability status.⁸ Although these additional requirements may add some regulatory burden, they also clarify and streamline previous affirmative action requirements, which could result in a net reduction in regulatory burdens.

The Office of Apprenticeship has also promoted diversity and inclusion in apprenticeship by awarding \$20.4 million in ApprenticeshipUSA “industry intermediary” and “equity partner” grants in September 2016. Industry intermediary grants support organizations that promote apprenticeship in targeted industries. Equity partners help apprenticeship sponsors achieve their diversity and inclusion goals. The funded equity partners are presented in table 2; all four serve women and people of color. Jobs for the Future also serves disconnected youth, and North Carolina A&T State University also serves people with disabilities. Although the equity grantees are most directly responsible for securing inclusive work environments for apprentices, industry grantees contribute to this effort by broadening apprenticeship beyond traditionally male occupations.

TABLE 2

National Equity Partners with ApprenticeshipUSA Grants

| Organization | Populations served |
|-------------------------------------|---|
| Chicago Women in Trades | Women and People of Color |
| Jobs for the Future | Women, People of Color, and Disconnected Youth |
| National Urban League | Women and People of Color |
| North Carolina A&T State University | Women, People of Color and People with Disabilities |

The Department of Labor also operates the Women and Apprenticeships in Nontraditional Occupations grant program, which funds projects that provide technical assistance to apprenticeship program sponsors to recruit, train, and retain women in occupations traditionally dominated by men. Mastracci (2005) finds that WANTO substantially increased the likelihood of women obtaining employment in nontraditional occupations.

Lessons for Policymakers

The experiences of South Carolina bode well for diversity and inclusion during apprenticeship expansions. Racial and ethnic diversity and gender diversity do not appear to suffer from expansion initiatives and, particularly in the case of gender diversity, may even be bolstered by expansion. However, this does not imply that the Office of Apprenticeship or the State Apprenticeship Agencies should be complacent. Evidence from South Carolina suggests that even if expansion efforts improve gender equity generally, women still face barriers to employment in male-dominated fields and with older apprenticeship programs (i.e., those predating Apprenticeship Carolina). Investments like the ApprenticeshipUSA equity partner grants and the WANTO grants are therefore essential for ensuring that apprenticeship expansion does not simply reproduce the same barriers and disparities in traditional apprenticeship occupations.

South Carolina's experiences suggest that significant gains for women can be achieved simply by targeting expansion efforts to new occupations. The data confirm what is widely known: that enormous gender disparities in apprenticeship are principally a product of the types of occupations that use the apprenticeship model. Industry intermediaries can help promote gender equity by expanding apprenticeship into occupations where women are more prevalent. However, evidence from South Carolina suggests that it is easier to register new apprenticeship programs in less traditionally male occupations than to bring more women into traditionally male occupations, including those that used registered apprenticeship before the Apprenticeship Carolina initiative.

National equity partner grants are targeted at both women and people of color. People of color participate in apprenticeships at higher rates than women, and these rates were largely maintained over the course of the Apprenticeship Carolina initiative. The strong representation of people of color in apprenticeships relative to women may weaken support for efforts to improve racial and ethnic diversity. National equity partners could explore aspects of apprenticeship other than initial registration and hiring to support people of color, such as improving completion rates, credential attainment, and retention by the employer upon completion. Being hired as an apprentice does little

good for workers if the apprenticeship is not completed and does not lead to a high-quality job. Bilginsoy (2003) documented lower apprenticeship completion rates among women and people of color relative to white men, and Royster (2003) highlighted the difficulties that people of color have obtaining or retaining high-quality jobs after training. We know less about credential attainment because of a lack of data, but because credentials are closely tied to progression through and completion of the apprenticeship itself, disparities in completion are likely to be reflected in credential attainment.

The Apprenticeship Carolina experience is ultimately an encouraging one. The initiative did not resolve all diversity and inclusion problems in the state, nor was it designed to solve them. However, the data show that there is no difficult trade-off to be made between equity and expansion.

Notes

1. See Nicholas Wyman's discussion of Benioff's five million apprentices goal here: Nicholas Wyman, "Why 5 Million Apprenticeships Will Make America Great Again," *Forbes*, March 21, 2017 <https://www.forbes.com/sites/nicholaswyman/2017/03/21/why-5-million-apprenticeships-will-make-america-great-again/#734eb84f2fce>. See also National Skills Coalition (2017).
2. A further complication not addressed in detail here is that families of color are often wary of apprenticeship and "vocational education" as options that direct children to lower status jobs. These concerns are informed by classic internal debates in the African American community but are also symptomatic of a more generalized American suspicion of education and training previously branded as "vocational education."
3. It is possible that some active sponsors do not hire new apprentices in every year, although this is less likely to be the case among large sponsors. This brief focuses on newly registered apprentices because of the particular concern with hiring disparities.
4. Population figures from "QuickFacts: South Carolina," US Census Bureau, accessed September 15, 2017, <https://www.census.gov/quickfacts/fact/table/SC/BZA210215>.
5. Exec. Order No. 10,925, 26 Fed. Reg. 1977 (March 8, 1961).
6. Equal Employment Opportunity in Apprenticeship and Training, 36 Fed. Reg. 6810 (April 8, 1971).
7. Equal Employment Opportunity in Apprenticeship and Training, 43 Fed. Reg. 20760 (June 12, 1978).
8. Apprenticeship Programs; Equal Employment Opportunity, 81 Fed. Reg. 92026 (January 18, 2017).

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