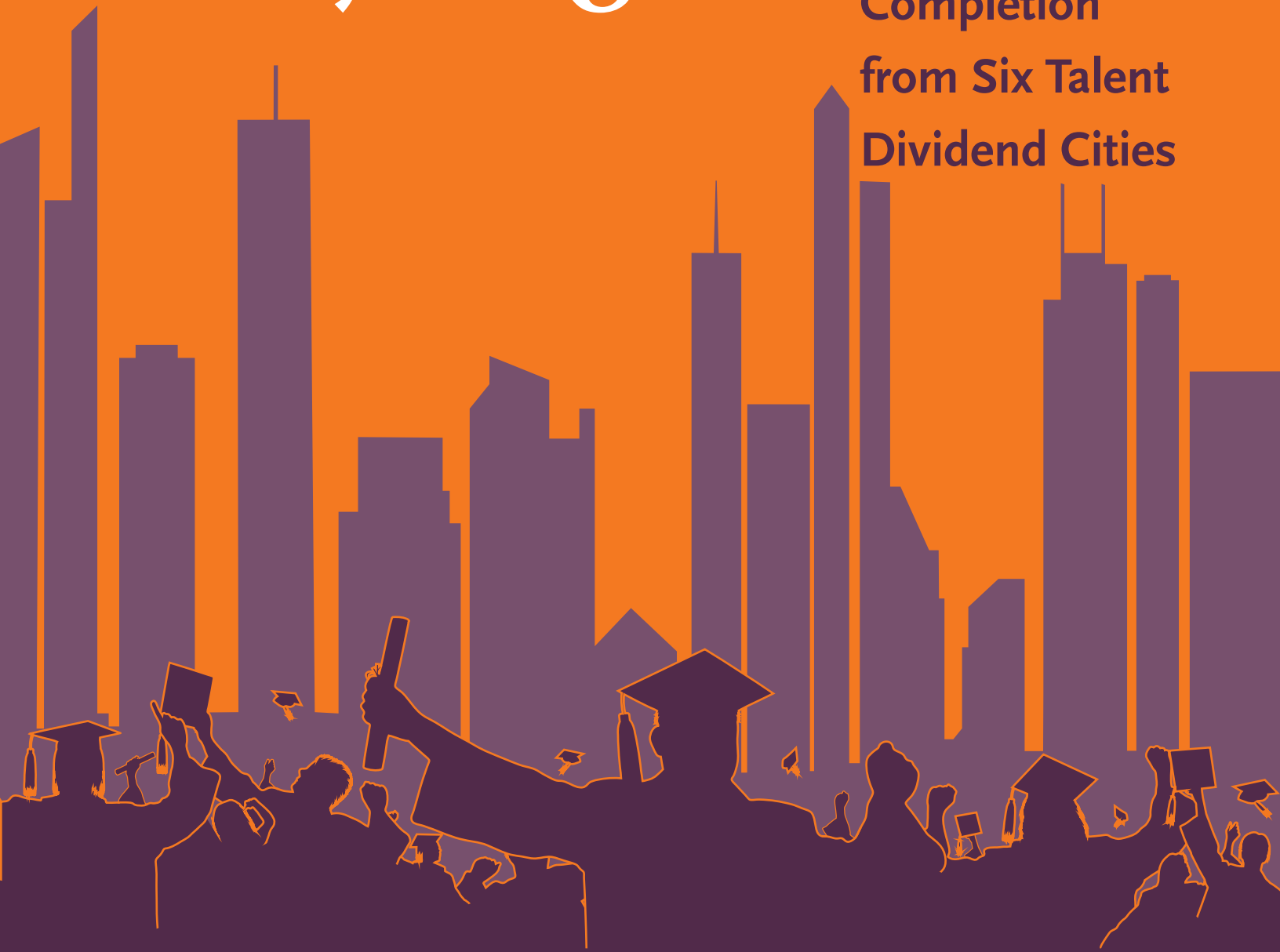


Building Cities by Degrees

Lessons on
Increasing
College
Completion
from Six Talent
Dividend Cities



mdrc
BUILDING KNOWLEDGE
TO IMPROVE SOCIAL POLICY

Elizabeth Zachry Rutschow
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December 2017

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Overview

While completion of a college credential is a critical step toward increasing one's viability in today's labor market, only about 40 percent of Americans earn an associate's or bachelor's degree by age 27. Many policymakers, education leaders, and philanthropic organizations have focused on improving graduation rates. In 2011, the Kresge Foundation sought to build on this work by launching the National Talent Dividend \$1 Million Prize Competition. Leaders of the initiative posited that a city's per capita income would rise as the number of degree holders rose, and the contest promised to award \$1 million to the city with the greatest proportional increase in its college degree completion over a four-year period. Fifty-seven of the nation's most populous cities participated in the competition; the winner was Akron, Ohio, which increased its degree attainment by 20 percent.

Given the strong performance of many cities in the competition, the Kresge Foundation was interested in learning which particular strategies may have been influential in their postsecondary gains and in sharing potential lessons from the Talent Dividend work with the larger field. This case study examines the efforts of six of the top cities in the competition (Akron; Columbia, South Carolina; Omaha, Nebraska; Orlando, Florida; Portland, Oregon; and Richmond, Virginia) in an effort to build a set of hypotheses around the activities that may have helped these cities increase degree attainment. In examining the efforts of multiple institutions to raise graduation rates within their city, this study departs from higher education research that tends to focus on individual colleges. And because three colleges in the case study cities have been among the nation's most successful in decreasing achievement gaps between low-income and traditionally underrepresented minority students and their more wealthy, white peers, the research also focuses on identifying which approaches might be particularly important in closing such gaps.

Overall, this study found several key factors that might help improve postsecondary completion. First, nearly all the case study cities had established partnerships across education sectors and between colleges and employers that helped bring hundreds to thousands more students into postsecondary institutions. Specific interventions aimed at easing students' transitions between high school and college, and between two-year and four-year college environments, seemed to be particularly instrumental in helping them earn college credits and credentials. In supporting underrepresented minority and low-income students, strong transfer agreements between two-year and four-year colleges, widespread financial aid, and intensive student services seem to play a key role. Finally, contextual factors, such as the economic downturn, often influenced cities' efforts and outcomes. Successful cities found ways to highlight their postsecondary opportunities and promote student achievement within their changing environments.

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Preface

Enrolling in college and completing a degree is an important way for Americans to train for and enter the workforce — yet too many fail to do so. The need for a credential is particularly acute as the labor market becomes more technologically advanced and skill oriented. Employers have increasingly called for — but have not always found — workers with the higher-order critical thinking and problem-solving skills necessary to perform well in this environment. As a result, postsecondary leaders have been seeking more innovative ways to reach and educate lower-skilled individuals. For example, colleges have created “bridges” between high schools and career and technical programs and developed “career pathway” programs, with a focus on the accumulation of credentials on multiple levels.

But while most higher education research has focused on the efforts of colleges to improve student outcomes, work outside these institutions can also be critical to achieving this goal. The communities surrounding postsecondary institutions — including local businesses, philanthropic organizations, and nonprofits — play an important role in employing and serving many of the colleges’ students. Learning how colleges work within and among their local communities to improve student achievement can provide insights into how college access and success can be promoted.

The Kresge Foundation’s Talent Dividend competition aimed to give cities an incentive to work collaboratively to improve degree completion. Studying how cities successfully pursued this project offers a window into how these types of cross-sector partnerships might work — and how they may dramatically affect the number of students enrolling and earning credits at these institutions. The hypotheses generated from this study may help bring about new thinking on how cities and local communities can increase their college-going and college-graduating populations — and help researchers, practitioners, and policymakers continue to move this work forward.

Gordon L. Berlin
President, MDRC

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The Authors

Executive Summary

Completion of a college degree is a critical step toward improving one's earnings and viability in today's labor market. It is estimated that 60 percent of all U.S. jobs will require some form of postsecondary education by 2018; a trend toward greater educational requirements has been developing for at least the last decade, as technological change and globalization have created a labor market that rewards those with higher-level skills while eliminating many of the traditional "blue collar" manufacturing jobs that provided living wages to middle-class families.¹ Yet only about 40 percent of Americans earn an associate's or bachelor's degree by age 27.² This situation has led many policymakers, education leaders, and philanthropic organizations to focus on improving postsecondary credentialing, with large foundations, such as the Bill and Melinda Gates Foundation and the Lumina Foundation, seeking to dramatically increase the nation's current college graduation rates over the next decade.³ The federal government has kept pace through efforts such as the American Graduation Initiative, which called for five million additional college graduates by 2020, and increases in federal financial aid through the 2007 College Cost Reduction and Access Act and reauthorization of the Higher Education Act in 2008.⁴

Recognizing the challenges, in 2011, CEOs for Cities and the Kresge Foundation launched the National Talent Dividend \$1 Million Prize Competition, which would award \$1 million to the city that had the greatest proportional increase in college degree completion over a four-year period. Talent Dividend leaders posited that a city's per capita income would rise as the number of degree holders rose and developed the competition to help focus cities on the potential benefits of increasing the college graduation rate. Fifty-seven of the nation's most populous cities participated in the competition, and the winner — Akron, Ohio — was announced in 2014, having increased its college credentialing by 20.2 percent.

Given the strong performance of many cities in the competition, the Kresge Foundation was interested in learning which particular strategies may have been influential in their postsecondary gains and in sharing those lessons with the larger field. This case study examines the efforts of 6 of the top 10 performing cities in the Talent Dividend competition (Akron; Columbia, South Carolina; Omaha, Nebraska; Orlando, Florida; Portland, Oregon; and Richmond, Virginia) in an effort to build a set of hypotheses about what activities may have helped these cities increase their college completion rates. The research team began by identifying leaders

¹Carnevale, Jayasundera, and Gulish (2016).

²Living Cities (2014).

³Achieving the Dream Network (2017); Lumina Foundation (2017).

⁴SoFi (2016); Institute for College Access and Success (n.d.).

from a broad set of organizations, including colleges, businesses, foundations, nonprofits, and government agencies, within each of the six case study cities. In examining the efforts of multiple institutions to raise college completion within their city, the study departs from higher education research that tends to focus on individual colleges. The research also seeks to highlight the types of approaches that may be helpful in decreasing achievement gaps for low-income and traditionally underrepresented minority students.

Key findings from the study include the following:

- Partnerships across education sectors and between colleges and employers — promoting credit transfers, simultaneous enrollment, or internships — appeared to be influential in helping many students earn college credits and degrees.
- Interventions such as financial support and intensive student services, which ease the transitions along the education and employment pipeline, may lead to higher college enrollment and degree completion.
- Strong transfer, financial aid, and student support systems may help in closing achievement gaps.
- Contextual factors, such as the economy, can have an important influence on postsecondary education and may present opportunities for cities to increase college completion.

What Did the Top Cities Do to Improve Degree Completion Rates?

Representatives within the six Talent Dividend case study cities posited a number of factors that they saw as influential on the growth of college credentialing, as highlighted below.

- **Partnerships across education sectors — K-12 systems, two-year colleges, and four-year colleges and universities — may hold particular promise for increasing college completion.**

Cross-sector partnerships, a key tenet in the Talent Dividend theory of change, played an important role in many of the case study cities' efforts to increase degree attainment. Five of the six cities had partnerships in place that generally involved government leaders, kindergarten through 12th-grade school districts, and colleges; in some cases, nonprofit networks helped bring together multiple actors within their cities. While colleges have most often taken the initiative, mayors in two of the cities, Portland and Orlando, had been working to foster these relationships.

Most notable were alliances between education sectors. Relationships that helped ease students' transitions along the education pipeline, including those that allowed secondary students to enroll in college courses and earn college credits as well as those that eased the burden of transfer between two-year and four-year colleges, appeared to be particularly beneficial. The partnerships that allowed for the greatest amount of access to the next educational level — involving guaranteed admission for two-year college graduates to four-year colleges, or large-scale dual enrollment programs in which high school students can earn college credits — appeared to play an important role in helping hundreds to thousands of students reach the next level of education.

Though these findings align with rigorous studies on the positive effects dual enrollment programs can have on students' accumulation of college credits and degrees,⁵ much less is known about how partnerships between two-year and four-year colleges may improve students' credentialing. Numerous studies have confirmed a lack of alignment across colleges' course requirements and students' loss of course credits in the transfer process,⁶ even in states that had articulation agreements to align courses and course numbering.⁷ More specificity around course transfer may be needed for students to successfully matriculate and complete bachelor's degrees. Having strong support systems for transfer students also appears to be key, given the documented challenges these students face in moving across institutions. Finally, students' success in earning an associate's degree may also be important, as research has shown that earning an associate's degree before transfer is positively associated with earning a bachelor's degree.⁸

The benefits that four-year institutions in the case study cities gained from their transfer partnerships suggests that more effort is warranted. Of particular note, the experiences in some Talent Dividend cities indicate that transfer agreements may hold promise for increasing four-year colleges' diversity and reducing achievement gaps. But while quantitative studies have demonstrated that this can happen, less is known about the types of programs that may facilitate this work. Some agreements allow two-year graduates more open access to four-year colleges, while others restrict entry based on such factors as grade point average or specific course requirements. Policymakers, practitioners, and researchers should put a high priority on further investigations of how the transfer process might further promote such outcomes.

⁵What Works Clearinghouse (2017).

⁶Jenkins and Fink (2015); Booth et al. (2013); Jaggars and Fletcher (2014).

⁷Handel and Williams (2012); Bailey et al. (2017).

⁸Crosta and Kopko (2014); Arrington (2016).

- **Building networks with employers and working with them to create degrees that meet local labor force needs may help colleges further increase their enrollments and credentialing.**

Representatives in all the case study cities attributed their increases in degree completion to the strong alliances that had been built between their postsecondary institutions and local employers. While four-year colleges and universities tended to connect with employers through internship programs, two-year colleges tended to partner more closely with local businesses to create new degree or credential programs that would meet employers' workforce needs. In addition to developing a strong job pipeline for new graduates, partnerships with large companies, such as Toyota or Boeing, often brought new resources to two-year colleges, as the companies donated equipment or their expertise to help create programs and train students.

These types of employer-college partnerships represent a potentially valuable, but understudied, resource in helping more individuals achieve college credentials. Some organizations, such as the Center for American Progress and the Aspen Institute, have begun studying the proliferation of these partnerships and noted the potential they have for increasing graduates' income.⁹

Given these findings, two-year colleges may wish to cultivate new relationships with local employers to see whether and what types of training programs might further facilitate individuals' certification and employment within local cities. In particular, degree programs in health-related, business, engineering, and computing seem to hold the most promise for increasing the wages of students receiving certificates or associate's degrees.¹⁰ These programs could benefit from a deeper understanding of which types of employer-college partnerships are most fruitful, how new programs can be more easily created and maintained, and whether additional credential and workforce opportunities can be built on these new degree programs to further advance individuals' skills and earnings.

- **Large-scale financial and student support programs, such as statewide scholarship programs or institution-wide intensive advising models, may be particularly helpful in increasing degree attainment.**

MDRC's research team found that the interventions that seemed to influence student persistence and completion tended to be larger-scale programs that improved students' financial or social support as they enrolled in college. Many of the colleges in this case study had implemented or felt the effects of statewide scholarships or other financial aid programs that support-

⁹Soares (2010); Heidkamp and Hilliard (2014); Association of American Colleges and Universities (2013).

¹⁰Belfield and Bailey (2017).

ed hundreds and sometimes thousands of their students. In addition, many colleges had developed institution-wide processes to support different types of students as they entered college, whether they were first-time entering freshmen, transfer students, first-generation-in-college students, or students specializing in particular fields (such as STEM majors). Leaders at these institutions argued that such programs helped students develop clearer plans for their college and career trajectories and fostered a sense of community among students that they believed was an important contributor to their persistence and graduation.

This hypothesis aligns well with recent research on intensive student support services and supplementary financial aid programs, which have been shown to have strong effects on students' persistence and completion. For instance, research on the Performance Based Scholarship programs, which provided supplementary grants to students as they met certain academic milestones, improved students' academic progress, while an evaluation of Kingsborough Community College's learning communities program, in which students took three classes together as a cohort and received case management advising and vouchers for textbooks, revealed that students took and passed more courses and were more likely to have graduated six years later than students in the control group.¹¹ Additionally, strong graduation impacts have been found from financial and student support programs more intensive than those in the Talent Dividend case study cities, such as those provided by the City University of New York's Accelerated Study in Associate Programs (ASAP), which nearly doubled graduation rates in three years.¹²

Given these findings, colleges in other states might consider implementing more intensive advising and greater financial support to help guide students throughout their college careers. Currently, MDRC is studying whether models like ASAP can be replicated in other states, with varying levels of financial aid and student support; early findings suggest that the strong impacts on student achievement can be achieved at other colleges.¹³ Further research will demonstrate whether these findings hold over time and how different levels of support may affect students' outcomes.

- **Strong transfer partnerships, financial aid programs, and student support systems may be particularly important in reducing achievement gaps and helping low-income students and students of color attain degrees.**

¹¹Mayer, Patel, Rudd, and Ratledge (2015); Weiss et al. (2014).

¹²Scrivener et al. (2015).

¹³Sommo and Ratledge (2016).

Three universities in this study — Virginia Commonwealth University, the University of Central Florida, and the University of South Carolina at Columbia — have been recognized nationally for their success in decreasing achievement gaps between traditionally underrepresented minority (URM) students and white students. Leaders in these institutions as well as in other case study cities highlighted three factors that they felt had made a particularly strong contribution to increasing their diversity and supporting the success of URM students. First, college and university leaders noted that strong transfer relationships with two-year colleges had helped increase the percentage of URM students in their schools, thereby diversifying their graduating classes. Second, financial aid, including both federal and state grants as well as privately funded scholarships, was seen as particularly influential in helping low-income students enroll in college and persist. Third, leaders highlighted the important role that student support services played in helping URM and low-income students make the transition to college and succeed there. Even when services were directed to the larger student body, the leaders argued that they had a particularly positive effect on URM and low-income students, who tended to be less familiar with college expectations or have fewer financial means to support their enrollment.

Recent studies have found that certain states and certain postsecondary institutions have produced better outcomes for URM students. For instance, in a correlational analysis of 700,000 degree-seeking students using data from the National Student Clearinghouse Research Center, low-income transfer students attained degrees at a rate similar to their high-income peers in the states of North Carolina, Florida, Tennessee, and Iowa, suggesting that particular policies or practices may help promote low-income students' success.¹⁴ And as was the case with the University of Central Florida and Virginia Commonwealth University, researchers have found that certain four-year colleges (such as the University of Massachusetts at Amherst, the University of Washington, and Colorado State University) saw notable increases in their enrollments and diversity based on the strong partnerships and articulation agreements they had developed with their local community colleges.¹⁵

Given these findings, postsecondary institutions might look to bolster their ties with other colleges and universities as well as shore up their financial and student support in an effort to further reduce the achievement gaps between URM and white students. Additionally, qualitative researchers should study the colleges that have had more success at reducing such gaps to better understand what patterns may exist in their programs or services. If patterns do appear, more rigorous research should be devoted to learning whether their approaches can be

¹⁴Jenkins and Fink (2016).

¹⁵Wyner, Deane, Jenkins, and Fink (2017).

integrated into other college environments and measuring what effect they may have on students' achievement of credentials.

- **Future college initiatives aimed at improving completion rates should consider the role that certificates and other workforce degrees can play in bringing individuals into the postsecondary arena.**

The theory underlying the Talent Dividend initiative was that an increase in four-year bachelor's degrees was correlated with an increase in per capita income. Thus, the initiative was heavily weighted toward bachelor's degrees, discounting associate's degrees and excluding short-term certificates. However, leaders in many of the case study cities noted that two-year colleges and short-term certificate programs provided important avenues into postsecondary training and credential attainment, particularly among low-income students. Additionally, many of the employer-college partnerships highlighted in the case study cities began with certificate-level programs for students, which could then lead to further degrees as students advanced their skills.

In national research, associate's degrees and certificates have been shown to play an important role in increasing individuals' participation in the labor market and earnings. For instance, in a study recently released by Community College Research Center, associate's degree holders saw an average earnings increase of \$4,600 (among men) to \$7,200 (among women) over individuals who started college but did not earn a degree. Similarly, certificate holders saw an average gain of \$2,110 (among men) to \$2,940 (among women) in their earnings.¹⁶ Other studies have also shown that certificate holders have higher employment and income than those without certificates.¹⁷ Given this research, many institutions have begun to implement credential pathways, often beginning with short-term certificate programs and building toward associate's or bachelor's degrees, as a means for bringing lower-skilled adults into the postsecondary education pipeline and educating them in careers that have the potential for upward mobility.¹⁸

Considering these benefits of certificate and associate's degree programs, initiative leaders should consider including these degrees in their measures of postsecondary completion. An analysis of these degrees would be likely to provide an important window into postsecondary access and completion among lower-income or first-generation college students.

¹⁶Belfield and Bailey (2017).

¹⁷Xu and Trimble (2014).

¹⁸Bergson-Shilcock (2017); Zachry Rutschow and Crary-Ross (2014); Prins, Elder, Needle, and Raymond (2017).

- **While contextual factors, such as an economic recession, can have an important influence on college enrollments and financing, institutions within many of the case study cities implemented tactics that took advantage of opportunities and lessened negative effects on students.**

Both the economic recession of 2008-2009 and the opening of new postsecondary institutions increased college enrollments in the case study cities and probably influenced college completion during the Talent Dividend period. For instance, college enrollment increases surpassed the national average in at least half of the case study cities in the years just before the competition. Coincidentally, five of the six case study cities saw at least two and as many as five new institutions open during the competition period, which in some cities accounted for nearly 20 percent of the increase in associate's degrees or bachelor's degrees awarded at the end of the Talent Dividend period. At the same time, many institutions saw cuts to their financing, as tax revenues were dampened and state budgets waned. A number of colleges developed creative ways to overcome these challenges, whether by raising enrollments and funds through new degree programs or by diverting funding away from less essential projects, such as new buildings, in order to maintain the programming and support services that directly affected students.

The changes brought about by the recession carry two implications for cities' and institutions' efforts to improve college completion. First, while generally outside colleges' control, a city's economic situation can dramatically affect the flow of students and capital into postsecondary institutions. Second, factors such as the downturn in the economy may have the inadvertent effect of raising colleges' importance. Cities and colleges might benefit from anticipating an increased interest in college during these periods and developing strategies to accommodate higher enrollment. Colleges might try to capitalize on this outcome by directing investment toward programs that promote students' success, such as financial support or other student services.

- **Future initiative leaders who seek to support efforts to increase a city's number of degree holders might be well served by considering a longer timeline for the work and accounting for the ways that cities' previously established partnerships and efforts may have contributed to short-term successes.**

The Talent Dividend competition covered a four-year period, comparing outcomes from 2012-2013 with those from 2009-2010. Among the cities in this case study analysis, most, if not all, had been implementing strategies to boost college completion rates for many years before the competition. Therefore, stakeholders in most case study cities noted that their Talent Dividend work built on ongoing initiatives, rather than the competition instigating wholly new

efforts. In addition, some leaders provided an important critique of the initiative’s short timeline for measuring changes in college completion, noting that such changes are generally seen as a result of many years of painstaking work and relationship building.

Improving postsecondary credentialing, particularly in relatively short periods of time, has proved daunting for many initiatives in the past.¹⁹ Interventions that have shown more dramatic effects on graduation rates tend to be longer-term and more intensive, both in the services they provide and the monetary assistance they offer to financially strapped students.²⁰ While this does not mean that short-term interventions cannot have effects on college completion, learning from longer-term efforts and considering whether and how these can be initiated in other cities might provide a fruitful way forward.

Conclusion

The Talent Dividend \$1 Million Prize Competition was developed as an incentive for cities to increase their numbers of college graduates. In exploring the approaches taken by six of the top-performing cities, this case study sought to generate hypotheses about what types of efforts might increase postsecondary completion and decrease achievement gaps.

Factors that appeared influential in increasing enrollment included partnerships across education sectors and between colleges and employers, and interventions to ease students’ transitions through college and into the workplace. In addition, strong transfer, financial aid, and student support systems showed promise in closing achievement gaps for low-income students and those from traditionally underrepresented groups. Overall, most of the cities were able to capitalize on the recession’s apparent effect on enrollments, providing opportunities for more residents even while dealing with reduced funding from some sources.

While higher education research tends to focus on individual colleges, the Talent Dividend competition offered an opportunity to take a city-level perspective, examining the efforts of multiple institutions to boost degree attainment. While colleges have taken the initiative, mayors have also worked to foster such relationships. Researchers, policymakers, and practitioners may find the hypotheses presented here to be of value in future investigations into ways to encourage college achievement.

¹⁹Zachry Rutschow et al. (2011).

²⁰Scrivener et al. (2015).

Introduction

Completion of a college degree is a critical step for individuals striving to improve their earnings and viability in today's labor market. As technological change and globalization have created a labor market requiring higher-level skills to obtain living wage jobs, U.S. employers are increasingly looking to fill "middle-skills" jobs that require strong critical thinking and problem-solving ability — and often some postsecondary education or training.¹ It is estimated that 60 percent of all jobs in the United States will require some form of college education by 2018; a trend toward greater education requirements has already been seen in recent years, as college graduates have obtained a large proportion (95 percent) of the jobs created since the recession of 2008-2009.² College graduates also tend to have a host of better life outcomes than those with only a high school diploma, including stronger health and economic stability throughout life.³

Despite these trends, far too few Americans hold or are working toward a college degree. In 2014, it was estimated that only about 40 percent of U.S. adults had earned an associate's or bachelor's degree by age 27.⁴ This situation has led many policymakers, education leaders, and philanthropic organizations to refocus their efforts to improve college credentialing. For instance, organizations such as the Bill and Melinda Gates Foundation and the Lumina Foundation have been working to dramatically increase the nation's current college graduation rates and have supported efforts to reform college systems, such as Achieving the Dream (which focuses on strengthening community colleges and improving students' success) and Goal 2025 (which aims for 60 percent of Americans to hold a postsecondary credential by 2025).⁵ The federal government has kept pace through efforts such as the American Graduation Initiative, which called for five million additional college graduates by 2020, and increases in federal financial aid through the 2007 College Cost Reduction and Access Act and reauthorization of the Higher Education Act in 2008.⁶

Recognizing the challenges, in 2011, CEOs for Cities and the Kresge Foundation launched the National Talent Dividend \$1 Million Prize Competition, promising to award \$1 million to the city that had the greatest proportional increase in college degree completion

¹Autor, Katz, and Kearny (2008); Carnevale, Javasundera, and Gulish (2015); Frey and Osborne (2013); Holzer and Lerman (2015); Levy and Murnane (2005); Lumina Foundation (2017); Sommers and Osborne (2009).

²Carnevale, Jayasundera, and Gulish (2016).

³Organisation for Economic Co-operation and Development (2006); Zimmerman, Woolf, and Haley (2015); Ma, Pender, and Welch (2016).

⁴Living Cities (2014b); Cortright (2008).

⁵Achieving the Dream Network (2017); Lumina Foundation (2017).

⁶SoFi (2016); Institute for College Access and Success (n.d.); Brandon (2009).

over a four-year period. Positing that a city's per capita income is strongly linked with its proportion of degree holders, leaders of the Talent Dividend initiative developed the competition as an incentive for cities to increase their numbers of college graduates. Fifty-seven of the nation's most populous cities participated in the competition, and the changes in their credentialing rates were examined from academic year 2009-2010 through 2012-2013. Akron, Ohio, was declared the winner in 2014, having increased its rate of degrees awarded by 20.2 percent.

Given the strong performance of many cities in the competition, the Kresge Foundation was interested in learning which particular strategies may have been influential in cities' postsecondary gains, and in sharing those lessons from the Talent Dividend work with the larger field. This case study examines the efforts of 6 of the top 10 performing cities in the competition (Akron, Ohio; Columbia, South Carolina; Omaha, Nebraska; Orlando, Florida; Portland, Oregon; and Richmond, Virginia) in an effort to build a set of hypotheses about the activities that may have helped these cities increase their college completion rates. More specifically, this study examines whether particular tenets of the Talent Dividend competition, such as cross-sector partnerships and strong college leadership, were important in what these cities were able to achieve. Additionally, the study explores whether commonalities existed in the types of interventions and activities undertaken within these cities.

In examining the efforts of multiple institutions to raise college completion within a city, this study departs from higher education research that tends to focus on individual colleges. As such, the study examines the influence that cross-institution and cross-sector partnerships may have on metro regions' postsecondary success. This research also seeks to highlight the types of approaches that may be helpful in decreasing achievement gaps for low-income and traditionally underrepresented minority students. Key findings from the study include the following:

- **Partnerships across education sectors and between colleges and employers — promoting credit transfers, simultaneous enrollment, or internships — appeared to be influential in helping many students earn college credits and degrees.** Such partnerships played an important role in most cities' efforts. While some partnerships included multiple organizations, the most powerful collaborations were often those between educational systems (including K-12–postsecondary partnerships and those between two-year and four-year colleges) or between educational systems and employers.
- **Interventions such as financial support and intensive student services, which ease the transitions along the education and employment pipeline, may lead to higher college enrollment and degree completion.** In terms of numbers and scale, the interventions that seemed to have the greatest influ-

ence on students' degree attainment were dual enrollment programs (which allowed thousands of high school students to enter college with pre-earned credits), articulation agreements between two-year and four-year colleges (which helped thousands of community college students make the transition to four-year colleges), and broad-ranging financial support (such as state-based scholarship programs, which also reached thousands of students).

- **Strong transfer, financial aid, and student support systems may help in closing achievement gaps.** Financial aid and strong student support systems may have been particularly important in promoting the success of traditionally underrepresented minority students, as such interventions helped provide stable financial resources for many of these students while assisting in their transition into often unfamiliar college environments.
- **Contextual factors, such as the economy, can have an important influence on postsecondary education and may present opportunities for cities.** The economic crisis in 2008 and 2009 led to dramatic increases in college enrollments. Some top-performing Talent Dividend cities opened new colleges and programs and developed mechanisms to shelter students from the recession's effect on education budgets, which may have helped promote increases in degree attainment.

Overview of the Talent Dividend Competition

The Theory Behind the Competition

Funded by the Kresge Foundation and managed by the nonprofit networks CEOs for Cities and Living Cities, Talent Dividend was premised on the idea that talent development is critical to the economic success of cities. In research investigating economic growth and per capita income in U.S. cities, CEOs for Cities noted that higher levels of postsecondary education were correlated with higher incomes and higher levels of income growth.⁷ More specifically, they found that 58 percent of a city's per capita income was explained by the percentage of adults with college degrees, and for every percentage increase in four-year degree holders, a city saw an incremental \$856 increase in per capita income. As such, the leaders of the Talent Dividend initiative were interested in galvanizing U.S. cities to increase postsecondary completion and set the prize at \$1 million, reflecting the estimated lifetime earnings gap between four-year degree holders and high school graduates.

⁷Living Cities (2014b).

How the Competition Was Enacted

Initiative leaders launched Talent Dividend in May 2011 by inviting the largest city (defined as a Metropolitan Statistical Area, or MSA) within each state, as well as cities with a population of 500,000 or more, to compete. Of the more than 100 cities invited, 57 joined the initiative. Overall, the competition had relatively few requirements. Participating cities were asked to designate a lead for their Talent Dividend efforts (to serve as a point of contact for national initiative leaders) and form a steering committee composed of diverse leaders from across the city, including representatives from the private sector, government, economic development organizations, higher education, and philanthropy. Talent Dividend leaders posited that this type of cross-sector collaboration would be important in improving degree completion. Cities were also asked to submit reports on the interventions and policies they put in place to increase completion rates, which served as the basis for the competition's final report on the cities' efforts.⁸ Though it was not required, Talent Dividend leaders hoped cities would also implement a number of short-term tactics that might increase the number of postsecondary degrees earned.⁹

Talent Dividend also provided some support to cities participating in the competition. First, \$10,000 challenge grants were offered to cities that could secure matching funds from local donors. The challenge grants were intended to support convenings among city leaders, help them further develop plans to boost college graduation rates, and fund activities that raised awareness about the value of improving those rates.¹⁰ Additionally, Talent Dividend provided each city with annual benchmark data from the Integrated Postsecondary Education Data System (IPEDS),¹¹ which showed degree completion by school in each MSA and each city's cumulative college completion. Participating cities had the opportunity to review these reports and provide feedback if they saw any discrepancies in the data. Talent Dividend leaders also hosted three voluntary, national meetings for participating cities, which aimed to help them establish connections with one another and facilitate their sharing of strategies and interventions.¹²

⁸Living Cities (2014b).

⁹Living Cities (2014b).

¹⁰Kresge Foundation (2011).

¹¹Nearly all institutions of higher education must report to IPEDS, making it the most comprehensive source of data on degrees awarded. IPEDS, which is operated by the U.S. Department of Education's National Center for Education Statistics, features a robust system of definitions, security, reporting, and data verification.

¹²Living Cities (2014b).

Talent Dividend hired an independent data consultant to track cities' performance and determine the winner. Using IPEDs and census data,¹³ the consultant analyzed the number of two-year associate's degrees as well as four-year bachelor's degrees and graduate degrees awarded by all the postsecondary institutions within the MSA.¹⁴ Tracking began with degrees awarded in the 2009-2010 academic year, which were then compared with the number of degrees awarded three years later (2012-2013). Several other factors, such as population changes and online degrees awarded to nonresidents, were also accounted for. The 57 cities were then ranked based on the percentage change in degrees awarded. For more detail on how each city's performance was calculated, see Appendix A.

The Results

Based on these calculations, Akron won the competition with a 20.2 percent overall increase in degree completion (2,139 more degrees awarded in 2012-2013 than in 2009-2010).¹⁵ The city split the \$1 million prize across the nonprofits and higher education institutions that had been involved in the work, and the organizations used the funds to continue investing in efforts to increase degree completion.¹⁶ Portland, Oregon, came in second in the competition with an overall increase of 17.6 percent (5,312 more degrees awarded). Talent Dividend leaders also gave special awards for strong cross-sector partnerships (Syracuse, New York); exemplary leadership (The Center for Houston's Future); and greatest percentage change in degrees awarded to Latino, African-American, and multiracial students, for both bachelor's degrees (Orlando) and associate's degrees (the Los Angeles, Long Beach, and Santa Ana region of California).¹⁷ Appendix Table B.1 lists the top 10 cities, the number of degrees awarded in each city in 2012-2013, and the change from 2009-2010.

MDRC's Case Study

MDRC began working with the Kresge Foundation in summer 2015 to investigate the potential lessons from the Talent Dividend competition. The study began with an analysis of the work of the winning city (Akron); in summer 2016, it was expanded to include an investigation of five

¹³Population data for each metropolitan area were obtained through the U.S. Census Bureau's Population Estimates program. Data were adjusted to conform to federally defined core-based statistical area boundaries in effect at the time the Talent Dividend prize was announced.

¹⁴Short-term certificates or other workforce credentials were not included in these counts, because Talent Dividend posited that two-year and four-year degrees were the most influential in changing per capita income.

¹⁵This percentage is based on the Talent Dividend formula for calculating graduation changes, which gives double weight to four-year credentials and takes population change into account.

¹⁶Armon (2014).

¹⁷Kresge Foundation (2014).

additional cities that were strong performers in the competition. In order to select the case study cities, MDRC used available Talent Dividend data to investigate the differences in the types of degrees awarded and population changes among the top 10 performers in the competition.¹⁸ The research team aimed to select a diverse group of cities that differed in the types of degrees awarded (associate's versus bachelor's and graduate degrees), population size, geographic location, and population growth. Additionally, Kresge and MDRC were interested in exploring cities that may have differentially helped traditionally underrepresented populations, such as low-income students and students of color, to earn their postsecondary credentials at a higher rate. Figure 1 maps the six cities chosen for case study analysis — Akron, Ohio; Portland, Oregon; Orlando, Florida; Omaha, Nebraska; Columbia, South Carolina; and Richmond, Virginia — and shows the number of degrees they awarded in the final Talent Dividend year and the increase since 2009-2010.

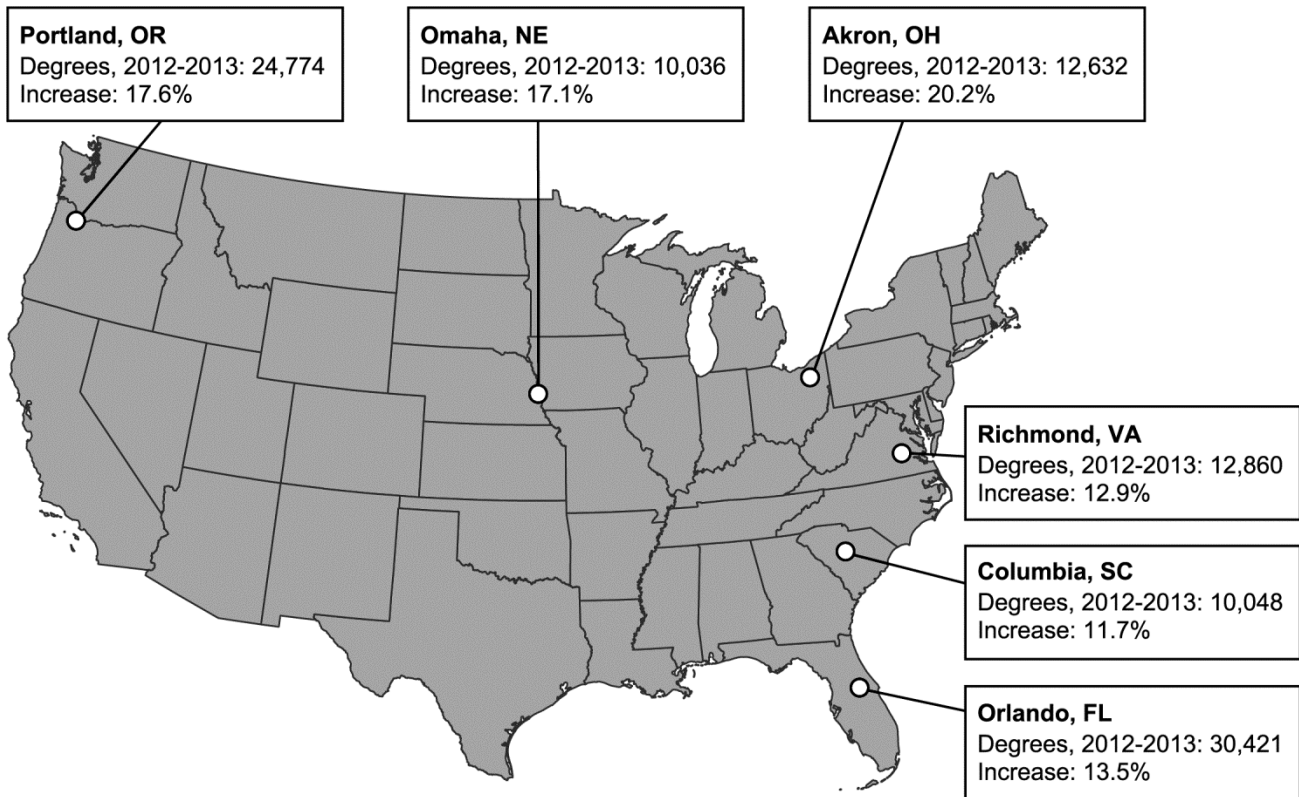
In its research, MDRC aimed to better understand what commonalities, if any, existed across the cities, both in their activities and interventions as well as potential contextual factors that may have influenced changes in postsecondary graduation rates, such as the vibrancy of the local economy or state or local policies governing higher education. The research team also sought to investigate whether some of the approaches that Talent Dividend expected to be important, such as cross-sector partnerships, seemed to play key roles in the cities' efforts. The following specific research questions guided the case study analysis:

1. How important were contextual factors, such as cross-sector partnerships, changes to state or local policies, or economic conditions, to cities' efforts to increase graduation rates? What similarities or differences were there across different cities or city environments?
2. Did interventions that have seen success in other postsecondary settings, such as financial aid support, accelerated programs, or programs that provide more support for graduation, seem influential to these cities' postsecondary graduation rates? Were any other types of special programs or interventions important?
3. What outreach or interventions, if any, did cities develop to reach certain populations, such as low-income students or students of color? Were there specific activities that seemed to help bridge the achievement gap for traditionally underrepresented minority students?

¹⁸The data consisted of detailed and summative postsecondary completion reports produced by a consultant hired by CEOs for Cities.

Figure 1

Locations of Talent Dividend Case Study Cities, Degrees Awarded in 2012-2013, and Percentage Change from the 2009-2010 Academic Year



SOURCE: Data provided by CEOs for Cities.

City-By-City Case Study Approach

This study takes a different approach from much research in higher education, which tends to investigate the effectiveness of individual program interventions or the success of particular colleges in increasing students' degree attainment. Rather, this study borrows from community development research and focuses on the city-level strategies and multiple institutions that may have contributed to postsecondary success. Consistent with the case study approach, the findings are presented as potential hypotheses about what contextual factors, partnerships, and activities might be influential in improving cities' degree completion rates. In developing these hypotheses, the research team sought to highlight the themes that were seen across multiple cities and appeared to affect large groups of students. Where possible, the research team also sought to consider how these findings aligned with current research on

programs' effectiveness. Researchers, policymakers, and practitioners may find these hypotheses valuable for future investigations into ways to increase college completion.¹⁹

Data Collection

To begin this work, the research team reviewed published Talent Dividend reports and interviewed national leaders of the initiative to learn more about the cities that participated in the competition, what activities they had undertaken, and which organizations led or participated in the work. Initiative leaders and a Kresge program officer also helped broker introductions between the research team and each city's lead organization for the competition. The research team conducted phone interviews with representatives from at least five different organizations in each city. A key goal was to identify a broad set of stakeholders from multiple organizations, including colleges, businesses, foundations, nonprofits, and government agencies, for further interviews.

In addition, the research team reviewed detailed Talent Dividend data on the credentialing rates of specific colleges and universities within each city to identify those that had seen the strongest increases in degree completion. The research team then made a priority of interviewing representatives of the four to six schools that had seen the greatest gains.

Interviews with contacts in each city continued through early spring 2017. After interviewing five to six representatives over the phone, the research team planned and conducted two-day site visits to each city to meet with representatives from various organizations in person. The site visits began in winter 2015 with a visit to Akron and continued from late fall 2016 through early 2017. In total, 97 individuals from a cross section of organizations in the six cities were interviewed for the case study analysis. (See Appendix C for organizations interviewed.) Notes from phone interviews and site visits were then analyzed during spring 2017 to identify important commonalities and differences across the top-performing Talent Dividend cities.

Findings and Hypotheses

Representatives within the six case study cities named a number of factors that they saw as influential on the growth of degree completion. Hypotheses are highlighted below across three key topics: (1) environmental and contextual factors, including cross-sector partnerships;

¹⁹MDRC researchers understand and acknowledge that cities across the country are currently implementing many of the activities highlighted in this report. Cities may have implemented similar activities and yet performed differently in the competition because of contextual factors and competition criteria that may have favored some cities over others.

(2) institutional interventions; and (3) factors that may help reduce achievement gaps. Each of these categories involves several factors that may have been important in the cities' success.

How Important Were Contextual Factors to Growth in Degree Completion?

One of the key questions to be explored in this case study was whether contextual factors, such as preexisting cross-sector partnerships, changes to state policies, or economic conditions, seemed to be influential in cities' work to increase graduation rates. Both cross-sector partnerships and the economy appeared important to top Talent Dividend cities' college credentialing. The narrative below provides a deeper investigation of these two factors.

- **Cross-sector partnerships involving local government, local employers, K-12 institutions, two-year colleges, and four-year colleges played an important role in most of the case study cities' efforts to increase post-secondary credentialing.**

Five of the six case study cities had multiorganization partnerships that predated the Talent Dividend initiative. These partnerships generally involved government leaders, kindergarten through 12th-grade school districts, and colleges, among others involved in efforts to improve postsecondary education. At times, improving degree completion rates was just one of several goals for these organizations, as they sought to address multiple challenges affecting the city. For instance, nonprofit and philanthropic stakeholders in Akron, Portland, and Richmond mentioned participating in the Strive Together Network, a national nonprofit association of 70 communities seeking to accelerate and sustain progress in helping low-income citizens overcome poverty and make educational advances. The Strive Together Network is built around the theory of collective impact, which focuses on building cross-sector collaborations among businesses, nonprofits, education entities, and funders in order to address complex social problems within specific localities.²⁰ Though business leaders in a couple of these communities had critiques of collective impact networks' ability to mobilize the community around "hard evidence," nonprofit, philanthropic, and postsecondary education leaders often noted that collective impact groups had had an important role in bringing together multiple actors within their cities.

Other partnerships that predated Talent Dividend were built locally by elected officials and other leaders within the community. For example, the mayor of Portland created an Education Cabinet to prioritize the city's education efforts, with a key goal of helping students move

²⁰Strive Together (2017).

successfully through critical transition points in the education trajectory. The mayor hired an education director and invited the presidents of Portland Community College and Portland State University, among other colleges, to serve in the cabinet. The group met regularly to plan long-term, systemic solutions to address credentialing challenges. A similar long-standing cross-sector relationship has existed in Orlando among the mayor, the president of the city's largest community college (Valencia), and the president of its flagship four-year university (UCF). The UCF-Valencia-mayoral partnership has been in place since the early 1990s, with the goal of moving students more seamlessly through the college-to-career pipeline. Leaders from each of these institutions argued that this partnership and the programs that resulted from it were central in Orlando's growth in degrees awarded.

Three types of partnerships appeared most critical in the work of these cities: (1) K-12-college partnerships, which allowed high school students to earn college credits and make the transition more easily into postsecondary institutions; (2) partnerships between two-year and four-year colleges, which aided in student transfer; and (3) employer-college partnerships, which helped colleges develop new programs and credentials that were responsive to local labor market needs. More details on these three types of partnerships are highlighted below.

- **K-12 and postsecondary partnerships, mainly enacted through dual enrollment programs, allowed thousands of students to earn college credits and advance more quickly toward college degrees.**

In most case study cities, there was a heavy emphasis on the continuum between K-12 schools and postsecondary education. In more than half of the cities, stakeholders noted that dual enrollment programs were an important contributing factor to students' success in earning college credits and degrees. Such programs typically occurred as partnerships between community colleges and local school districts and allowed students to obtain both college and high school credits for courses they completed.²¹ In three cities these courses were offered through "middle colleges," where community college courses are held on the campuses of local high schools or middle schools.

The extent of dual enrollment and middle colleges varied across the cities. The most substantial of these programs were seen in Orlando, Omaha, and Columbia. For instance, in Orlando, stakeholders noted the importance of their career technical colleges, which offer postsecondary courses on high school campuses and help high school students earn industry certificates. These colleges were supported by the federal School-To-Work Opportunities Act, which provided \$1.8 billion in seed money to states and selected high-poverty and Native American communities to support their school improvement objectives, workforce preparation

²¹Marken, Gray, Lewis, and Ralph (2013).

efforts, and economic development priorities.²² Leaders in Orlando’s public school district noted that there are five career and technical college campuses in the Orlando area, each of which serves about 5,000 students.²³ Credits earned from courses at these campuses are transferable to Valencia College and UCF, allowing students to obtain an industry-recognized credential that can help them join the workforce while simultaneously supporting further work toward a college degree.

Community college leaders in multiple cities noted the important role that dual enrollment programs had played. For example, stakeholders from Metropolitan Community College (MCC) in Omaha noted that thousands of students had enrolled in dual enrollment programs in the city and that these programs had been a boon for students’ successful transition to college. In South Carolina, the state’s Education and Economic Development Act ushered in dual enrollment programs throughout the state beginning in 2006; by the 2012-2013 academic year, more than 15,000 students were enrolled in over a thousand dual credit courses throughout the state. Leaders at Midlands Technical College, Columbia’s main community college, noted that dual enrollment was an important contributing factor in credentialing rates.²⁴ Leaders in other cities also discussed smaller dual enrollment programs, such as Portland Community College’s middle college program, which reached 60 to 100 high school students in 2010, allowing them to earn as many as 45 credits by the end of high school.

- **Partnerships between two-year and four-year colleges facilitated the success, transfer, and degree attainment of thousands of community college students in the case study cities.**

Along with partnerships between K-12 and postsecondary institutions, multiple city leaders noted that partnerships between two-year and four-year colleges were an important contributor to the increases in degree completion. More specifically, leaders in all the case study cities highlighted articulation agreements, which allowed two-year college students entry into four-year institutions, as a particularly important factor in increasing credential rates. Articulation agreements varied across the cities and in the amount of access to four-year institutions they allowed, with some colleges guaranteeing entry to associate’s degree holders while others limited access based on students’ performance in community college. In addition, many colleges had implemented reverse transfer agreements, which allowed four-year students to earn an associate’s degree from a partner two-year institution if they met the credit requirements and decided to leave the four-year institution without completing a bachelor’s degree.

²²U.S. Department of Labor Employment and Training Administration (2000).

²³This estimate also includes adult learners.

²⁴SC Technical College System (2017).

Articulation agreements between two-year and four-year institutions were mentioned in all of the case study cities. For instance, MCC and the University of Nebraska at Omaha (UNO) entered into an articulation agreement beginning in 2007, which allowed MCC students to more easily transfer their two-year college course credits to UNO.²⁵ UNO also guaranteed admission to MCC students who had completed the Liberal Arts Academic Transfer Associate of Arts degree (LATAA) with a GPA of 2.0 or higher.²⁶ An MCC leader estimated that 4,000 to 5,000 UNO students were former MCC students and may have contributed to UNO's increased credentialing rates.

Leaders at VCU in Richmond also noted that transfer students had dramatically increased both their enrollment and degree attainment. This work began with articulation agreements with local two-year colleges, such as J. Sargeant Reynolds and John Tyler Community Colleges, which allowed guaranteed admission to VCU for students who had completed a General Education Certificate or transfer-oriented associate's degree with a minimum GPA of 2.5 and grades of "C" or better.²⁷ Beginning in 2009, VCU further strengthened its support for transfer students by creating the Transfer Center, which worked with Richmond's surrounding community colleges to bring in students and provided advising at both the community colleges and VCU.²⁸ According to a VCU administrator, this center was serving over 2,000 transfer students during the Talent Dividend period, most of whom were coming from community colleges. These students have had an important impact on VCU's enrollments and credentialing: One administrator noted that 42 percent of the graduates in May 2016 were admitted as transfer students.

While UNO and VCU offered guaranteed admission to community college graduates who met certain academic benchmarks, college leaders in Orlando created an even more open-access transfer program that guaranteed admission to any central Florida community college graduate, regardless of academic standing. Developed in 2006, the Direct Connect program allowed entry into UCF for students at all five central Florida community colleges (now called state colleges): Valencia College, Daytona State College, Eastern Florida State College, Lake-Sumter College, and Seminole State College. Leaders at UCF and Valencia, which provides 52 percent of all of UCF's Direct Connect students, argue that Direct Connect had an enormous impact on both Valencia's and UCF's enrollments and credentialing, because it created an easy pipeline between the colleges that students made heavy use of (see Box 1).²⁹

²⁵Metropolitan Community College (2017).

²⁶University of Nebraska, Omaha (2017); Metropolitan Community College (2017).

²⁷Virginia Commonwealth University (2017b).

²⁸Virginia Commonwealth University (2017a).

²⁹Brown and Kurzweil (2015b).

Box 1

How Can Articulation Agreements Help Both Two-Year and Four-Year Colleges?

The open-door relationship that Valencia College and the University of Central Florida (UCF) developed through the Direct Connect program, which guaranteed Valencia graduates admission to UCF, provides insight into how access can benefit both two-year and four-year institutions. After the program was implemented in 2006, both Valencia and UCF saw dramatic increases in their enrollments. At Valencia, the number of students enrolled in Direct Connect to UCF had nearly tripled by fall 2013, increasing from 7,197 students in 2006 (22 percent of all enrolled students) to over 21,000 students (51 percent of enrollees). The student body at UCF had a similar boom, more than doubling by 2015 to 52,539 students — over half of whom were students who entered through the Direct Connect program.

In addition to their rapid growth, the colleges maintained or improved rates of credential attainment. According to the college president, Valencia's associate's degree attainment went up by 97 percent within three years of the Direct Connect program's launch, and UCF was able to maintain its strong completion rates, which were nearly identical for transfer and freshman students. And notably, both colleges were able to reduce the achievement gaps between underrepresented minority students and white students and won national awards for their work.

What Are Their Lessons?

UCF and Valencia leaders attributed their strong growth in enrollments and completions to several key factors:

- **Increasing the value of an associate's degree.** As a result of Direct Connect, two-year college graduates in central Florida were guaranteed a spot at UCF, a selective university that many students had trouble entering as freshmen. This guarantee made the associate's degree much more valuable to students.
- **Decreasing the cost of a four-year degree.** Valencia and other two-year graduates could take their courses for a fraction of the cost of UCF tuition, thereby lowering their overall expenses for a four-year degree.
- **Reaching students where they are.** UCF dramatically expanded its presence through the development of numerous regional campuses housed at community colleges throughout central Florida. UCF offered courses at these campuses, and staff members provided transfer advising to students as soon as they entered the two-year colleges.
- **Promoting growth in online programs, particularly for proven students.** UCF expanded its online programs exponentially during this period, with an estimated 78 percent of students taking online or partly online courses by 2015, earning 1.5 million credits. UCF specifically targeted online degree programs to transfer students, noting that two-year graduates already had a track record of persistence. Online programs also had the benefit of requiring fewer physical resources, such as classrooms and campus-based faculty, allowing the college more flexibility with its quick expansion.

(continued)

Box 1 (continued)

- **Maintaining strong academic standards and training.** Both Valencia and UCF administrators had made a strong commitment to teaching and learning, with strict standards for faculty. UCF developed the Center for Distributed Learning, which supports and trains faculty members in both classroom and online course development, and the Research Initiative for Teaching Effectiveness, which assesses the effectiveness of online courses and provides support for research into online teaching and learning. Valencia is renowned for structuring its faculty development and teaching to center on improving student learning, winning the inaugural Aspen Prize for Community College Excellence in 2011.

SOURCE: Information on UCF and Valencia from Brown and Kurzweil (2015a, 2015b) and site visits to UCF.

Similar to VCU, both Valencia and UCF had also developed strong support systems to aid in students' transfer between the colleges. For instance, UCF created numerous regional campuses throughout central Florida, which provided advising on transfer to entering students and allowed students to take UCF classes at institutions close to their homes.³⁰ Students attending these campuses in the 2013-2014 school year earned more than 200,000 credits, an increase of 35 percent from 2008-2009. Meanwhile, Valencia transformed its incoming student advising process to focus on several critical stages of students' academic life, including transfer to four-year colleges.

- **Reverse articulation agreements, which allowed four-year college students to earn an associate's degree, also created new pathways to credentials.**

Two cities mentioned an additional level of coordination between two-year and four-year institutions that may have contributed to their success in credentialing. Reverse articulation agreements allowed students who did not meet requirements for a bachelor's degree while attending a four-year institution to be granted an associate's degree from a partnering two-year college. This may have been an important factor in Portland's increase in associate's degrees. Beginning with a pilot program put into effect in 2012, Portland Community College (PCC) granted associate's degrees to some students who did not complete a bachelor's degree from Portland State University (PSU) but who had completed the requirements for an associate's degree.³¹ Students receiving "reverse granted" associate's degrees are not required to have an

³⁰Brown and Kurzweil (2015a).

³¹Hill (2012).

affiliation with PCC. Students also have the option of dual enrollment in PSU and PCC, which aided in the transfer of credits between institutions.

A similar reverse articulation agreement was enacted between MCC and UNO in Omaha in 2007. In this case, the agreement allowed MCC students who transferred to UNO before completing their degree to earn an associate's degree while at UNO if they completed certain courses. The process was relatively easy for students, as they only needed to apply for the associate's degree at MCC and submit their UNO transcripts. Poorly performing UNO students also had the option of completing their associate's degree at MCC rather than dropping out of school with no degree at all. MCC staff members assisted in enrolling students in this program by contacting eligible students and notifying them of their eligibility. MCC leaders argued that the uptick in associate's degree completions could have been the result of this agreement.

- **Strong partnerships between employers and colleges may have been important in developing new degree programs and attracting new students, particularly at community colleges.**

Stakeholders in all the case study cities also attributed the increases in degree completion to the strong alliances that had been built between colleges and local employers. These partnerships took a number of forms, often depending on the type of college that employers were partnering with. For instance, internship or graduation “capstone” projects were particularly important connections for students at four-year institutions. These programs generally matched college students with a local employer to help build their skills and exposure to different industries. An example of this occurred in Omaha, where UNO partnered with Union Pacific to offer a year-round internship program for about 175 to 200 students, often leading to full-time jobs after graduation. Similarly, in Portland, PSU's capstone project requires all seniors to intern with a local employer and develop a plan for a new program or technology for the business. Leaders from colleges in other case study cities noted similar types of internship programs within particular disciplines, such as education and business. As one Omaha administrator said, “the goal is to get students to meet with employers as soon as possible. ... [We] do not wait until students are almost done with their degree to start discussing employment options.”

In contrast, two-year colleges tended to partner with local businesses to create new degree or credential programs that would meet employers' labor needs. Aligning with their traditional role in helping build the local workforce, community colleges in all the case study cities had active partnerships with large corporations, such as Toyota, Boeing, Nabisco, DuPont, and Michelin. Community college leaders in Columbia, Omaha, Portland, and Richmond noted that employers often participated in curriculum advisory committees and helped the colleges develop new credential programs and curricula. A couple of employers also donated equipment that the colleges could use to give students on-the-job-type training opportunities. As one MCC

leader said, “We’ve shifted our focus from educating someone to be generally employable in a field like IT to ‘We’ll educate you to get a job at this business.’”

Several of these colleges also emphasized the importance of connecting students with employment opportunities, through internships and on-the-job training, with employers sometimes providing generous financial aid packages to support students’ college advancement. For instance, MCC in Omaha, which now calls its academic advisers “career navigators,” has created a “business liaison” staff position, whose primary responsibility is to manage relationships with local businesses. The business liaison both assesses students’ readiness for internship placement and helps place them. The strength of the program has become well known, with employers now reaching out to MCC for interns and offering more competitive financial and benefits packages (such as salary, health insurance, or guaranteed employment upon graduation) to attract them to the positions. A similar program operates in South Carolina: For the past 25 years, Michelin has partnered with technical community colleges across the state on the Michelin Technical Scholars Program. The program provides participants with a full scholarship to a technical community college, including the cost of books, among other school-related costs. Students must take a test to qualify for the scholarship; once accepted, they enroll in a part-time technical training program at Michelin. Michelin’s partnership with Midlands Technical College in Columbia was named the nation’s best partnership between a two-year college and a corporation in 2014 by the American Association of Community Colleges.³²

Colleges in some cities created formal processes for developing new credential programs in partnership with employers. For instance, Midlands Tech created a “quick jobs” training program in 2009: New employers moving to Columbia can apply to have the college develop a customized program through which students can build skills and gain credentials in the new workforce areas. Similarly, Omaha’s MCC developed an “emerging technologies” process, whereby the college would develop a pilot course for an employer; if the course received positive feedback, the college would move forward with it.

Community college leaders often highlighted their responsiveness to employers and the need to be able to create programs quickly. Some also emphasized that their ability to meet new employers’ needs had brought new industries to the city. For instance, faculty members from John Tyler Community College in Richmond explained that some companies that moved to the Richmond area, such as Nabisco, DuPont, and Altria, sought to develop programs in conjunction with John Tyler to train students in both mechanical skills and newer computer technologies. In the words of one John Tyler administrator, “[you] see the dying of the old that is

³²Midlands Technical College (2014).

Box 2

Spotlight on Employer-College Partnerships at John Tyler Community College

The partnership between John Tyler Community College in Richmond, Virginia, and Rolls-Royce provides a striking example of the benefits that can accrue for both sides of such affiliations. When opening a manufacturing facility in Richmond near John Tyler's campus, Rolls-Royce worked with the college to develop a sophisticated machining program that provides students with the technical skills necessary to create and quality-check the development of jet engine parts. Rolls-Royce has provided John Tyler with the advanced manufacturing equipment and technology that the company uses in its facilities, allowing students hands-on training in measuring, cutting, and monitoring the quality of newly developed parts through computer technology.

In addition to working with Rolls-Royce, John Tyler has created a number of occupational programs in partnership with local employers that provide training and credentials to students in a wide variety of fields, including health care, nursing, manufacturing, welding, computer science, business, and human services. These applied associate of sciences degree programs are offered with the goal of preparing students for work in two years or less. Each program has its own advisory board, which is made up of industry leaders who offer counsel on changes in the industry and educate the college about their needed skills. John Tyler then designs specific programs to meet individual employers' needs and helps train students to fill job vacancies at these companies. Most companies have about 20 apprentices each year, for whom they provide tuition support. In addition, John Tyler has career and industry coaches who help students with the transition to work, hosting job fairs with business partners and helping students obtain internships. As they complete the program, students receive an associate's degree and are registered as journey workers with the Department of Labor in their respective disciplines.

SOURCE: Site visits and interviews with college and company representatives.

replaced with more advanced jobs . . . which lead to [a] smaller but more technically capable workforce." (Box 2 provides the example of John Tyler's partnership with Rolls-Royce.)

- **Economic factors, such as a recession, can have an important influence on college enrollments and financing, posing opportunities and challenges; colleges and lawmakers may be able to implement tactics that help shield students from the negative effects and support their success.**

Like much of the nation, most of the case study cities saw dramatic changes in their unemployment rates before and during the competition period. As Table 1 indicates, between

Table 1
Unemployment Rates in Talent Dividend Case Study Cities and States from 2005 to 2013

	2005	2009	2013	Percentage Change 2005-2009	Percentage Change 2009-2013
Akron	5.6	10.1	7.3	80.4	-27.7
Ohio	5.8	10.8	7.3	86.2	-32.4
Columbia	6.1	9.4	6.5	54.1	-30.9
South Carolina	6.8	11.6	7.1	70.6	-38.8
Omaha	3.9	5.0	3.8	28.2	-24.0
Nebraska	3.7	4.8	3.6	29.7	-25.0
Orlando	3.5	11.1	6.7	217.1	-39.6
Florida	3.4	11.0	6.8	223.5	-38.2
Portland	5.5	10.6	6.4	92.7	-39.6
Oregon	6.1	11.2	7.5	83.6	-33.0
Richmond	3.9	7.9	6.0	102.6	-24.1
Virginia	3.5	7.0	5.6	100.0	-20.0
United States	5.0	9.8	7.2	96.0	-26.5

SOURCE: U.S. Department of Labor Bureau of Labor Statistics (monthly data from September of each year).

NOTE: Gray highlighting signifies an unemployment rate higher than the national average.

2005 and 2009, all six case study cities experienced increases in their unemployment rates, and four of the six cities had unemployment rates that were near or above the national average (9.8 percent) at the height of the global economic crisis in 2009. Some cities saw a near doubling (Akron, Portland, and Richmond) or tripling (Orlando) in their unemployment rates during this period, although Omaha and Columbia were less hard hit. Also in line with national trends, many of the cities saw reductions in unemployment during the Talent Dividend period (2009-2013). By 2013, the case study cities tended to have lower unemployment than the national average (7.2 percent), though most of the cities (with the exception of Omaha) still had higher unemployment rates in 2013 than they did in 2005. With the exception of Columbia in 2009 and

Table 2
Percentage Change in College Enrollment in Talent Dividend
Case Study Cities from 2005 to 2013

	2-Year Institutions		4-Year Institutions	
	2005-2009	2009-2013	2005-2009	2009-2013
Akron	89.6	-28.6	18.9	2.4
Columbia	19.4	0.9	14.7	9.6
Omaha	36.3	-13.7	10.4	4.7
Orlando	51.0	-13.8	29.1	10.4
Portland	30.9	-0.6	13.8	7.2
Richmond	33.1	-0.5	11.0	1.8
United States	25.1	-4.0	12.2	5.5

SOURCE: Full-time equivalency data from the Integrated Postsecondary Education Data System (IPEDS).

NOTE: Data from some institutions participating in Talent Dividend were not provided in IPEDS and therefore are not included in these calculations.

Portland in 2013, each of these cities also had an unemployment rate close to that of its state (less than 1 percentage point different).³³

Most of the case study cities also saw dramatic changes in their postsecondary enrollments during this time period (Table 2). The percentage increase in enrollments at two-year colleges in five of the six cities was higher than the national average (25.1 percent) from 2005 to 2009.³⁴ Half the case study cities also saw enrollment growth in four-year institutions that surpassed the national average over that period (12.2 percent).³⁵ Interviewees in many of the case study cities noted the changes, arguing that the economic recession had led to the rapid rise in enrollments. Stakeholders in Portland said they believed the city’s population growth during the recession had contributed to the growth in unemployment — because not enough jobs existed for all the new transplants — in turn leading to more individuals seeking credentials. Similarly, representatives in another city noted that the recession created a mismatch between the jobs available and four-year graduates’ skill sets, leading some bachelor’s degree holders to

³³The research team also compared the unemployment rates in some of the lower-performing Talent Dividend cities and found no discernible difference in the unemployment patterns between lower-performing and top-performing cities.

³⁴See Appendix Table B.2 for the numbers of students enrolled in the Talent Dividend case study cities.

³⁵The research team also compared top-performing Talent Dividend cities’ postsecondary enrollment rates with those of lower-performing cities in the competition and saw a similar pattern in both groups (an increase in enrollments from 2005 to 2009).

enroll in two-year colleges to gain more relevant workforce skills. These cities' experiences resonate with the national trends at the time, as many universities and colleges, particularly two-year colleges, saw unprecedented increases in their enrollments as laid-off workers and high school graduates went to college to improve or retool their skills.³⁶

Finally, all but one of the case study cities opened new postsecondary institutions and expanded degree programs between 2009 and 2013, which added a number of degrees to each city's total. With the exception of Omaha, which opened no new colleges, each case study city welcomed at least two and as many as five new institutions during the time of the competition (Table 3). These new colleges and programs were a mix of trade schools, colleges offering bachelor's degrees, and professional schools, such as colleges of nursing or medical sciences. These institutions added anywhere from 51 to 513 new associate's, bachelor's, and graduate degrees within each city, and, in some cases, the new degrees made up over 15 percent of the increase in associate's or bachelor's degrees. Representatives in the cities' colleges also reported that they had expanded their degree programs during the Talent Dividend period. For instance, leaders in Akron noted the expansion of graduate programs at Northeast Ohio Medical University (NEOMED), while the University of Central Florida (UCF) in Orlando pointed to a rapid increase in the number of online courses and degrees that they offered. These new programs and schools may have added a number of opportunities for students in these cities to achieve postsecondary credentials.

Some cities fared better than others during and after the recession. Representatives in half the case study cities noted that they were sheltered from some of the recession's woes by having a more diverse economy or by state policies that helped mitigate the effects on higher education budgets. For example, stakeholders in Columbia and Richmond, both state capitals with large universities, described labor markets that were dominated by government and education, which allowed their cities to remain more economically stable at a time when businesses were in peril. In Omaha, the state legislature used American Recovery and Reinvestment Act funds to support postsecondary budgets, while city leaders in Columbia noted that colleges didn't feel the recession in terms of funding cuts because they had never received much funding from the state government. These stories are also borne out in the economic data, as Columbia, Richmond, and Omaha experienced the lowest increases in unemployment rates from 2005 to 2009 among the case study cities and had unemployment rates below the national average.

³⁶Shapiro et al. (2014); Mullin and Phillippe (2009).

Table 3**Newly Opened Schools in Talent Dividend Case Study Cities and Their Contribution to the Increase in Degrees Awarded**

City	Number of Schools		Number of Degrees Awarded from Newly Opened Schools, 2012-2013		Degrees as a Percentage of Each City's Increase	
	Opened	Closed	AA	BA and higher	AA	BA and higher
Akron	2	0	51	0	19.1	0.0
Columbia	3	0	96	0	25.3	0.0
Omaha	0	0	0	0	0.0	0.0
Orlando	4	1	212	13	7.5	0.5
Portland	5	1	158	355	4.6	18.7
Richmond	5	0	131	115	22.5	8.8
Total	19	2	648	483	8.0	4.9

SOURCE: Data provided by CEOs for Cities.

NOTE: AA = any associate's degree; BA and higher = any bachelor's or graduate degree. Table reflects institutions awarding associate's, bachelor's, or graduate degrees that opened or closed between fall 2009 and spring 2013.

Yet representatives from a number of colleges in the case study cities noted that the recession's effect on state funds did result in reductions in their institutional budgets, and the colleges tried to find ways to keep students from feeling these cuts. For instance, representatives from Valencia College and UCF in Orlando said that they intentionally managed their budgets to reduce large capital expenditures, such as erecting new buildings, to protect student support services and programs. Leaders at Virginia Commonwealth University (VCU) also noted that they made special efforts to ensure that the budget cuts experienced during the financial crisis did not affect student aid or the multiple programs they had put in place to support students throughout their college trajectory. Instead, they looked for other ways to reduce expenditures, such as not hiring new staff.

In general, the economic downturn served to increase college enrollments while also reducing postsecondary financing for many institutions. Despite the challenges these circumstances posed, a number of cities and institutions found ways to continue to support students' enrollment and success in college, including opening new programs and colleges and finding ways to shelter students from the impact of the recession.

What Types of Institutional Interventions May Have Influenced Degree Completion Rates?

In addition to cross-sector partnerships, many of the cities had commonalities in the types of interventions and services they developed to support students' success in college and increase degree attainment. Two particular kinds of programs seemed important across colleges: financial support and student support, such as "intrusive" advising or cohorted learning communities, focusing on students' persistence and success in college. More details on these interventions are provided below.

- **Financial support may have contributed to the increase in degree completion in most of the case study cities.**

Five of the six case study cities cited financial aid programs, including statewide scholarship programs and individual scholarships funded by institutions and philanthropic organizations, as potentially having a role in their cities' increases in degrees awarded. In general, the programs that reached the most students tended to be federal or state financial aid programs, which offered relatively substantial financial support and targeted large subsets of students. For instance, nearly 99 percent of in-state freshmen at the University of South Carolina (USC) in Columbia received anywhere from \$2,800 to \$7,500 in state scholarship funds to support their first year in college, and science, technology, engineering, and math (STEM) students could receive up to \$10,000 in their second year. Midlands Tech leaders also noted that a federal program called the Post-9/11 GI Bill, which allowed military personnel to share Department of Veterans financial aid support with their spouses and children, played an important role in enabling many students to afford and attend school. Overall, the financial support from large-scale financial aid and scholarship programs may have had an influence on students' persistence and graduation in two of the six case study cities.

Some smaller-scale institutional scholarship programs may also have been important in increasing credential attainment for certain subsets of students. For instance, about 400 USC students a year received the Gamecock Guarantee, which was created in 2008 and covers the cost of undergraduate tuition and technology fees for first-generation, low-income students.³⁷ Similarly, the Buffett Scholars Program provides scholarships to Nebraska high school graduates entering college for the first time who need financial assistance to attend one of 16 state colleges or universities. According to one Omaha college administrator, the program provided scholarships to over 100 students in 2012-2013 across colleges in Omaha.

³⁷University of South Carolina (2017).

Several institutions in Akron, the winning Talent Dividend city, implemented specific scholarship programs aimed at helping near-graduates complete their degrees. At Kent State University, the University of Akron, and Hiram College, staff members sought to identify students who needed only a few credits to graduate (with an associate's or a bachelor's degree) and were in good academic standing, but who had dropped out of college within the past three years. Staff members contacted these individuals, encouraged them to complete a degree, and worked to address their financial barriers to enrollment. While the scholarships differed by college and tended to be small (ranging from \$250 to \$2,000), they were focused on providing students with enough immediate financial assistance to meet their remaining need after accounting for their grants, loans, and personal contributions.³⁸ In some cases, the four-year colleges encouraged students to complete an associate's degree, which may have helped boost the number of associate's degrees awarded at some Akron universities. University leaders at one institution also noted that over 80 percent of the grant recipients had graduated within six months of receiving this support.

- **Intensive student support, especially intrusive advising, may have improved students' persistence in college and ultimately graduation.**

In addition to financial support, postsecondary leaders noted numerous other types of social and advising support they developed to increase students' persistence and graduation. Postsecondary leaders in most of the case study cities mentioned developing intensive services to help students build community and be aware of and manage potential barriers to completion. Intrusive advising, in which advisers actively reach out to students through multiple modes of contact throughout the academic year, was a particularly important tactic at a majority of institutions across the case study cities. For example, John Tyler Community College in Richmond has been developing more intensive advising structures over the past six years, designating an advising month each semester in which staff members repeatedly contact students and make efforts to meet with them in person. Additionally, an advising center was created for each academic discipline, allowing each student to receive program-specific information.

Four-year universities had similar programs to support students' persistence in college. For instance, in 2006, VCU in Richmond formed the University College, a program that broadened supportive services for incoming freshmen, including expanded tutoring services and proactive advising for students who were not meeting certain benchmarks. The program was extended to serve transfer students in 2009, and VCU administrators argue that these services helped boost their retention and graduation rates as more students began graduating within four

³⁸Korn (2014).

to five years. The University of Richmond implemented a cohort model for entering students, in which students live and take classes together, in an effort to create a greater sense of community. The program grew exponentially over the Talent Dividend period, and university administrators believe that their rise in retention rates was in part a result of this program. Kent State University, in the Akron area, has developed an intensive advising system for urban students, in which they meet weekly with a designated faculty member who assists them in making the transition to the relatively rural campus in Kent. A handful of other intensive support programs mentioned in the case study cities include tutoring programs, student success courses, updated freshman orientations, and first-year experience programs.³⁹

Some college representatives also reported investing in sophisticated data systems to better track their students' performance, which would allow them to provide targeted assistance during challenging times, such as when a student fails a midterm or a student's GPA falls below a certain level. Institutions in Akron, Columbia, Portland, and Orlando discussed the implementation of upgraded data systems with more functionality and analysis capabilities. Staff members from two colleges in Akron said that their data systems had helped them implement early alert programs to identify students who were at risk of dropping out, and institutions in Columbia and Portland reported that data systems allowed them to process the transcripts of prospective transfer students more quickly, enabling them to provide better guidance to more students.

What Types of Interventions Might Help Low-Income Students and Students of Color?

While many of the colleges in this Talent Dividend case study were able to improve their graduation rates, advancements do not always happen across the board, for all students. As researchers at the Education Trust noted in a recent report, while graduation rates in U.S. public and private four-year institutions rose from 56 percent to 59.4 percent from 2010 to 2013, achievement gaps between white students and students of color barely budged, narrowing by only six-tenths of a percentage point.⁴⁰ However, the same researchers found that certain four-year colleges — 26 of them — made exceptional strides, increasing the graduation rate for African-American, Latino, and Native American students by 12 percentage points or more and narrowing achievement gaps between these students and white students. Given such gains, it is

³⁹Student success courses, also called student orientation courses, are generally one-semester courses that are designed to build students' college knowledge and study skills. Freshman orientations are generally part-day to multiday periods when newly entering students are introduced to the college before beginning the academic semester. First-year experience programs often combine multiple types of services or programs, such as success courses or grouping students into cohorts, to support students in their first year at the college.

⁴⁰Eberle-Sudre, Welch, and Nichols (2015).

important to explore what these colleges have done that may have helped traditionally underrepresented minority (URM) students succeed.

- **Strong transfer agreements, financial aid, and intensive student support systems may help in closing achievement gaps.**

Two colleges in the Talent Dividend case study cities — VCU in Richmond and USC in Columbia — were among these top 26 institutions, increasing the graduation rates of URM students by more than 12 percentage points and narrowing the gaps between URM and white students by 3.3 and 5.2 percentage points, respectively. In addition, a college in a third case study city — UCF in Orlando — has been highlighted nationally for increasing its share of African-American, Latino, and low-income students over the past 15 years (up to nearly one-third of the student body) while dramatically increasing graduation rates for both first-time freshmen and transfer students (by 11 percentage points between 2001 and 2014).⁴¹ Perhaps partly as a result of this work, Orlando was recognized by the Talent Dividend competition for having the largest increase in the share of Latino, African-American, and multiracial earners of bachelor's degrees from 2010 to 2013, with an increase from 22 percent to 28 percent of all graduates.

What can be learned from the work of these and other Talent Dividend cities that might help in bridging achievement gaps for URM and low-income students? One hypothesis put forth by some institutions was that efforts to increase the number of transfer students at their colleges had significantly influenced their diversity. As one administrator mentioned, transfer students have traditionally been more racially and ethnically diverse than the college's entering freshman class. Creating a supportive environment for students was also seen as critical to helping promote the success of URM and low-income students. In some cases, college and foundation representatives noted how specific scholarships or forms of financial support had been developed to support low-income or minority students, such as Omaha's Buffett Scholars Program, the Urban League of Nebraska's scholarship program for African-American students,⁴² or the University of Richmond's grant from the Howard Hughes Medical Institute, which was focused on recruiting and retaining underrepresented students in the STEM pipeline.

While other colleges did not specifically target URM or low-income students, they emphasized that their revisions to supportive services for the general student body had an especially positive effect on minority and low-income students. For instance, administrators at Valencia College noted that the intrusive advising systems that they had developed, which provided road maps for the college experience and advising support to help students through critical college

⁴¹Brown and Kurzweil (2015a).

⁴²Urban League Nebraska (2012).

milestones, were particularly beneficial for first-generation college students, who may have entered with a less clear picture of the college experience. Similarly, VCU administrators argued that the extra outreach and support provided by their University College program was particularly helpful for first-generation college students who may have had less familiarity with college expectations and challenges. These activities align with the practices of colleges highlighted in the Education Trust report, which focused on increasing enrollment, retention, and success of URM students. Their efforts included identifying and supporting successful students of color as early as middle school and developing strong supportive services, such as intensive advising or first-year communities for entering students.⁴³

The importance of financial support to low-income and minority students' retention and success was underscored by the experiences of one historically black college in a case study city that saw a dramatic decrease in its financial support just after the Talent Dividend period. The college president described how the university received a trifecta of blows to its financing from 2012 to 2016: (1) the elimination of summer Pell grants, which reduced its traditional \$2 million summer tuition revenue to \$800,000; (2) changes to the federal Parent Plus loan program that required parents to have higher credit ratings, resulting in a \$3 million reduction in financial aid revenue, which in turn forced the school to reduce the average annual student loan from \$6,300 to \$4,300; and (3) new revisions to the satisfactory academic progress rules for federal financial aid, which led to more students missing the benchmark and having their federal aid revoked, resulting in the college's course cancellations doubling from 400 to 800. Although this college saw 35 percent growth in its graduation rate during the Talent Dividend period, its president noted that the college had a much higher dropout rate and lower graduation rate after Talent Dividend as a result of its financial troubles. In his words, "for the students coming from a low income background, [the] cost of tuition is the greatest reason for dropping out."

This story has been underscored by national studies examining the effects of increased tuition costs on low-income students' success.⁴⁴ In a case study of Virginia, where state appropriations for higher education have declined by 30 percent from 2001 to 2014 and colleges have become more reliant on tuition hikes, increases in the net costs to students had a statistically significant, negative effect on student outcomes, with low-income students being particularly hard hit.⁴⁵ Paired together, these findings suggest that strong financial aid and student services may have an important influence on URM students' degree completion.

⁴³Eberle-Sudre, Welch, and Nichols (2015).

⁴⁴Mulhern, Spies, Staiger, and Wu (2015).

⁴⁵Mulhern, Spies, Staiger, and Wu (2015).

Implications and Lessons from the Talent Dividend Initiative

This case study provides important lessons about how contextual factors, cross-sector partnerships, and institutional interventions may influence college enrollment and graduation rates. Despite their different locations and sizes, many of the top-performing Talent Dividend cities in the case study were alike in developing strong partnerships across a variety of institutions with a distinct focus on improving college enrollment and completion. Additionally, many had developed or benefited from specific financial or student support interventions that sought to decrease the financial burden of attending college and improve the guidance that students received throughout their college trajectory. While contextual factors, such as the economy, did affect postsecondary education, a number of cities also developed creative ways to lessen the economy's impact on direct student support while at the same time opening new institutions or programs to bring in additional students. Finally, a handful of colleges in the case study cities were also successful at reducing the achievement gaps between white and URM students through a mix of interventions focused on increasing the diversity of their institutions: Strong transfer agreements and increased financial and advising support may have helped low-income and first-generation students (many of whom are URM students) progress through critical milestones in the college process.

While this case study examines the actions of only six cities, their work has implications for other cities seeking to improve postsecondary credentialing, as outlined below.

- **Dual enrollment programs across K-12 and postsecondary institutions may be an important way to further increase college enrollment and completion.**

Cross-sector partnerships, a key tenet in the Talent Dividend theory of change, played an important role in many cities' efforts to increase degree attainment. Relationships that helped ease students' transitions along the education pipeline, including those that allowed secondary students to enroll in college courses and earn college credits and those that eased the burden of transfer between two-year and four-year colleges, were particularly beneficial. The relationships that allowed for the greatest access to the next educational level — such as Valencia College and UCF's open enrollment partnership and the dual enrollment programs established between numerous secondary and postsecondary institutions in the case study cities — appeared to play an important role in helping large numbers of students prepare for and reach the next level of education. Providing additional support to help with this transition, such as transfer advising to two-year students or student support communities for those who recently transferred into four-year institutions, also seemed important in promoting students' ability to persist and graduate.

Research on dual enrollment has confirmed the important role that these programs can play in helping high school students make the transition to college. Descriptive and quasi-

experimental research has shown that dual enrollment students are more likely to enroll and persist in college and have higher academic achievement than non-dual enrollment students.⁴⁶ Additionally, a review of 10 rigorous studies, which together included over 77,000 high school students across the United States, found that dual enrollment programs had a positive effect on students' completion of high school, college enrollment, college credit accumulation, and college degree attainment.⁴⁷

Given these positive results and the benefits that dual enrollment programs had in top-performing Talent Dividend cities, these programs appear to hold much promise for increasing students' college success, and cities should consider ways to expand these programs across their K-12 and postsecondary education sectors. City leaders might consider providing incentives for K-12 and postsecondary institutions to work together to further expand dual enrollment programs, both in high schools and on college campuses. Clear lessons on how to do this can be gathered from the Orlando Public School District's career and technical colleges, which allowed high school students to take postsecondary courses on their high school campuses. Other implementation methods may also be promising. City leaders might seek out, where possible, federal or state funds to support these efforts, such as the federal School-To-Work initiative, which supported numerous expansions of dual enrollment in the case study cities.

- **Though more research is needed, transfer agreements between two-year and four-year institutions may be a promising mechanism for increasing postsecondary enrollment and diversity while also reducing achievement gaps.**

Transfer agreements between two-year and four-year colleges in the Talent Dividend case study cities appeared to play an important role in four-year institutions' enrollment increases and diversity and may also have helped reduce achievement gaps between white and URM students. However, compared with dual enrollment programs, less is known about what specific practices may be most important in promoting the results. Overall, research on student transfer has demonstrated many barriers in the process. Studies have documented the challenges students face when trying to transfer, such as a lack of alignment in course requirements across colleges⁴⁸ and sporadic support for transfer students as they enter new institutions.⁴⁹ Analyses of nationally representative data have confirmed these results, showing that many community college students are unable to transfer a majority of their credits to a four-year institution, with

⁴⁶Hoffman, Vargas, and Santos (2009); Karp et al. (2007).

⁴⁷What Works Clearinghouse (2017).

⁴⁸Monaghan and Attewell (2015); Bailey et al. (2017).

⁴⁹Jenkins and Fink (2015); Booth et al. (2013); Jaggars and Fletcher (2014).

some students (15 percent) unable to transfer any credits.⁵⁰ These results occurred even in states that had statewide articulation agreements, which were meant to align courses and course numbering across two-year and four-year institutions.⁵¹ Institutions' lack of knowledge about transfer policies and lack of support services for transfer students, both within and between two-year and four-year colleges, have been blamed for low levels of transfer, a claim that is supported by the negative experiences of students who have tried to navigate this process.⁵²

Given the benefits that four-year colleges in the case study cities gained from their transfer partnerships, and the lack of success that states have seen in implementing transfer policies, more specificity around course transfer and support for transfer students may be warranted. Students' success in earning an associate's degree may also be important, as research has shown that earning an associate's degree before transfer is positively associated with earning a bachelor's degree.⁵³

A few recent studies have begun to confirm these hypotheses. For instance, studies by the College Board, the Community College Research Center (CCRC), and the Aspen Institute have shown that institution-based approaches to supporting the transfer process — such as coacceptance (allowing students to be accepted simultaneously at partnering two-year and four-year colleges) and strong advising at both kinds of institutions — led to better results for transfer students.⁵⁴ The Aspen Institute and the CCRC have published a practice guide for supporting two-year and four-year college partnerships, which recommends many of the same practices implemented by colleges in the case study cities, such as having well-defined pathways for students, clearly articulating these pathways to students, and creating advising systems tailored to the transfer student experience.

Of particular note, the experiences in some Talent Dividend cities suggest that transfer agreements may hold promise for increasing four-year colleges' diversity and reducing achievement gaps. However, while quantitative studies have demonstrated that this can happen, less is known about the types of programs that may facilitate this work. Some agreements allow two-year graduates more open access to four-year colleges, while others restrict entry based on such factors as grade point average or specific course requirements. Policymakers, practitioners, and researchers should put a high priority on further investigations of how the transfer process might further promote such outcomes.

⁵⁰Monaghan and Attewell (2015).

⁵¹Handel and Williams (2012); Bailey et al. (2017).

⁵²Kadlec and Martinez (2013); Kadlec and Gupta (2014); Booth et al. (2013); Jaggars and Fletcher (2014).

⁵³Crosta and Kopko (2014); Arrington (2016).

⁵⁴Handel and Williams (2012); Wyner, Deane, Jenkins, and Fink (2017).

- **Building networks with employers and working with them to create degrees that meet local labor force needs may help colleges further increase their enrollments and credentialing.**

Representatives in all the case study cities attributed their increases in degree completion to strong alliances that had been built between their postsecondary institutions and local employers. While four-year colleges and universities tended to connect with employers through internship programs, two-year colleges tended to partner more closely with local businesses to create new degree or credential programs that would meet employers' workforce needs. In addition to developing a strong job pipeline for new graduates, partnerships with large companies, such as Toyota or Boeing, often brought new resources to two-year colleges, as the companies donated equipment or their expertise to help train students.

These types of two-year college and employer partnerships represent a potentially valuable but understudied resource in helping more individuals achieve college credentials and higher incomes. Organizations such as the Center for American Progress and the Aspen Institute have been studying the proliferation of such partnerships and found that they hold promise for improving graduates' earnings.⁵⁵ Recent studies on the labor market returns for short-term certificates — which are often the initial type of credential earned through these new programs — have found that such credentials can increase individuals' earnings, particularly in fields such as health, business, engineering, and computing.⁵⁶

Given these findings, two-year colleges may wish to cultivate new relationships with local employers to see whether and what types of training programs might further facilitate individuals' certification and employment within local cities. In particular, degree programs in health-related, business, engineering, and computing seem to hold the most promise for increasing the wages of students receiving certificates or associate's degrees.⁵⁷ These programs could benefit from a deeper understanding of which types of employer-college partnerships are most fruitful, how they can be more easily created and maintained, and whether additional credential and workforce opportunities can be built on these new degree programs to further advance individuals' skills and earnings.

- **Accessing or developing large-scale financial and student support programs, such as statewide scholarship programs or institution-wide in-**

⁵⁵Soares (2010); Heidkamp and Hilliard (2014); Association of American Colleges and Universities (2013).

⁵⁶Xu and Trimble (2014); Belfield and Bailey (2017).

⁵⁷Belfield and Bailey (2017).

tensive advising models, may be a way to further strengthen students' college progress and success.

MDRC's research team found that the interventions that seemed to have the most powerful effect on students' persistence and completion tended to be larger-scale programs that improved students' financial or social support as they enrolled in college. Many of the colleges in this case study had implemented or felt the effects of statewide scholarships or other financial aid programs that supported hundreds or thousands of their students. In addition, many colleges had developed institution-wide processes to support different types of students as they entered college, whether they were freshmen, transfer students, first-generation college students, or students specializing in particular fields (such as STEM majors). Leaders at these institutions argued that such programs helped students develop clearer plans for their college and career trajectories and fostered a sense of community among students that they believed was an important contributor to their persistence and graduation.

This hypothesis aligns well with recent research on intensive student support services and supplementary financial aid programs, which have been shown to have strong effects on students' persistence and completion. For instance, long-term follow-up on an evaluation of Kingsborough Community College's learning communities program, in which students took three classes together as a cohort and received case management advising and vouchers for textbooks, revealed that students took and passed more courses and were more likely to graduate six years later.⁵⁸ Additionally, research on the Performance Based Scholarship programs, which provided supplementary grants to students as they met certain academic milestones, improved students' academic progress.⁵⁹ Finally, the Accelerated Study in Associate Programs (ASAP) initiative at the City University of New York (CUNY), which provided even more comprehensive support, including intensive advising, full financial aid, and textbooks, had striking effects on students' college completion. Nearly double the proportion of ASAP students (40 percent) had graduated from CUNY within three years of entry compared with students not in the program (22 percent).⁶⁰

Based on this research, colleges in other states might consider implementing more intensive advising and greater financial support to help guide students throughout their college careers. Currently, MDRC is studying whether models like ASAP can be replicated in other states, with varying levels of financial aid and support, and early findings suggest that the strong impacts on student achievement can be achieved at other colleges.⁶¹ Further research will

⁵⁸Weiss et al. (2014).

⁵⁹Mayer, Patel, Rudd, and Ratledge (2015).

⁶⁰Scrivener et al. (2015).

⁶¹Sommo and Ratledge (2016).

demonstrate whether these findings hold over time and how different levels of support may affect students' outcomes.

- **Strong transfer networks, support services, and financial aid may be some of the more influential ways to decrease achievement gaps.**

Obtaining the support — both financial and social — to enroll in college is often an especially daunting task for low-income and URM students, many of whom may be first-generation college students, have fewer financial resources to attend college, or have less exposure to the college environment than other undergraduates. National studies have revealed that these students often have more challenges entering, persisting in, and ultimately graduating from college than their peers — challenges that many college leaders in the case study cities also noted.⁶²

Faced with these challenges, postsecondary leaders in some of the case study cities highlighted three factors they believed to be particularly important in increasing their diversity and supporting the success of URM students. First, college and university leaders noted that strong transfer relationships with two-year colleges had helped increase the percentage of URM students in their schools. Second, financial aid, including both federal and state grants as well as privately funded scholarships, were seen as particularly influential in helping low-income students enroll in college and persist. Third, leaders highlighted the important role that student support services played in helping URM and low-income students make the transition to college and succeed there. Even when services were directed to the larger student body, the leaders argued that they had an especially positive effect on URM and low-income students, who tended to be less familiar with college expectations or have fewer financial means to support their enrollment.

Recent studies, like the aforementioned Education Trust study,⁶³ have found that certain states and certain institutions produce better outcomes for URM students. In a correlational analysis of 700,000 degree-seeking students using data from the National Student Clearinghouse Research Center, low-income transfer students attained degrees at a rate similar to their high-income peers in the states of Florida and Iowa, suggesting that particular policies or practices may help promote low-income students' success.⁶⁴ And, as was the case with UCF and VCU in the Talent Dividend case study cities, researchers have found that certain four-year colleges (such as the University of Massachusetts at Amherst, the University of Washington, and Colorado State University) saw notable increases in their enrollments and diversity based

⁶²Wyner, Deane, Jenkins, and Fink (2017).

⁶³Eberle-Sudre, Welch, and Nichols (2015).

⁶⁴Jenkins and Fink (2016).

on the strong partnerships and articulation agreements they had developed with their local community colleges.⁶⁵

Given these findings, postsecondary institutions might look to bolster their ties with other colleges and universities as well as shoring up their financial and student support in an effort to further reduce the achievement gaps between URM and white students. Additionally, qualitative researchers should study the colleges that have had more success at reducing such gaps to better understand what patterns may exist in their programs or services. If patterns do appear, more rigorous research should be devoted to learning whether their approaches can be integrated into other college environments and measuring what effect they may have on students' achievement of credentials.

- **Although contextual factors, such as a downturn in the economy, can affect postsecondary institutions' enrollment and financing, cities may be able to capitalize on the changes to further support enrollment and completion.**

The economic recession that the country (and the world) experienced beginning in late 2007 greatly influenced college enrollment rates, with many colleges (including those in top-performing Talent Dividend cities) seeing dramatic increases. At the same time, many of these institutions saw cuts to their financing, as tax revenues were dampened and state budgets waned. Yet a number of them found creative ways to meet these challenges. The development of new programs or postsecondary institutions helped increase enrollment even further. And a number of colleges noted ways that they diverted funding away from less essential projects, such as building programs, in order to maintain the programs and support that directly affected students.

The changes brought about by the recession carry two implications for cities' and institutions' efforts to improve college completion. First, while generally outside colleges' control, a city's economic situation can dramatically affect the flow of students and capital into postsecondary institutions. Second, factors such as the downturn in the economy may have the inadvertent effect of raising colleges' importance. Cities and colleges might benefit from anticipating an increased interest in college during these periods and developing strategies to accommodate higher enrollment. Colleges might try to capitalize on this outcome by directing investment toward programs that promote students' success, such as financial support or other student services.

⁶⁵Wyner, Deane, Jenkins, and Fink (2017).

- **Future college initiatives aimed at improving completion rates should consider the role that certificates and other workforce degrees can play in bringing individuals into the postsecondary arena.**

The theory underlying the Talent Dividend initiative was that an increase in four-year bachelor's degrees was correlated with an increase in per capita income. Thus, the initiative was heavily weighted toward bachelor's degrees, discounting associate's degrees and excluding short-term certificates. However, leaders in many of the case study cities noted that two-year colleges and short-term certificate programs provided important avenues into postsecondary training and credential attainment, particularly among low-income students. Additionally, many of the employer-college partnerships highlighted in the case study cities began with certificate-level programs for students, which could then lead to further degrees as students advanced their skills.

In national research, associate's degrees and certificates have been shown to play an important role in increasing individuals' participation in the labor market and earnings. For instance, in a study recently released by CCRC, associate's degree holders saw an average earnings increase of \$4,600 among men to \$7,200 among women over individuals who started college but did not earn a degree. Similarly, certificate holders saw an average gain of \$2,110 (among men) to \$2,940 (among women) in their earnings.⁶⁶ Other studies have also shown that certificate holders have higher employment and income than those without certificates.⁶⁷ Given this research, many institutions have begun to implement credential pathways, often beginning with short-term certificate programs and building toward associate's or bachelor's degrees, as a means for bringing lower-skilled adults into the postsecondary education pipeline and educating them in careers that have the potential for upward mobility.⁶⁸

Considering these benefits of certificate and associate's degree programs, initiative leaders should consider including these credentials in their measures of postsecondary completion. An analysis of these credentials would be likely to provide an important window into postsecondary access and completion among lower-income or first-generation college students.

- **Future initiative leaders who seek to support efforts to increase a city's number of degree holders might be well served by considering a longer timeline for the work and accounting for the ways that cities' previously**

⁶⁶Belfield and Bailey (2017).

⁶⁷Xu and Trimble (2014).

⁶⁸Bergson-Shilcock (2017); Zachry Rutschow and Crary-Ross (2014); Prins, Elder, Needle, and Raymond (2017).

established partnerships and efforts may have contributed to short-term successes.

The Talent Dividend competition covered a four-year period, comparing outcomes from 2012-2013 with those from 2009-2010. Among the cities in this case study analysis, most, if not all, had been implementing strategies to boost college completion rates for many years before the competition. Therefore, stakeholders in most case study cities noted that their Talent Dividend work built on ongoing initiatives, rather than the competition instigating wholly new efforts. In addition, some leaders provided an important critique of the initiative's short timeline for measuring changes in college completion, noting that such changes are generally seen as a result of many years of painstaking work and relationship building.

Improving postsecondary credentialing, particularly in relatively short periods of time, has proved daunting for many initiatives in the past.⁶⁹ Interventions that have shown more dramatic effects on graduation rates tend to be longer-term and more intensive, both in the services they provide and the monetary assistance they offer to financially strapped students.⁷⁰ While this does not mean that short-term interventions cannot have effects on college completion, learning from longer-term efforts and considering whether and how these can be initiated in other cities might provide a fruitful way forward.

Conclusion

The Talent Dividend \$1 Million Prize Competition was developed as an incentive for cities to increase their numbers of college graduates. In exploring the approaches taken by six of the top-performing cities, this case study sought to generate hypotheses about what types of efforts might increase postsecondary completion and decrease achievement gaps.

Factors that appeared influential in increasing enrollment included partnerships across education sectors and between colleges and employers, and interventions to ease students' transitions through college and into the workplace. In addition, strong transfer, financial aid, and student support systems showed promise in closing achievement gaps for low-income students and those from traditionally underrepresented groups. In some cases, city leaders, such as the mayor or other elected officials, helped lead these efforts to further align schools and promote the message of college completion across different organizations in the city. More often, however, new partnerships were built between educational institutions, such as colleges and public school districts or two-year and four-year colleges, or between colleges and local businesses. Finally, most of the cities were able to capitalize on the recession's apparent effect

⁶⁹Zachry Rutschow et al. (2011).

⁷⁰Scrivener et al. (2015).

on enrollments, providing opportunities for more residents even while dealing with reduced funding from some sources.

While higher education research tends to focus on individual colleges, the Talent Dividend competition offered an opportunity to take a city-level perspective, examining the efforts of multiple institutions to boost degree attainment. Researchers, policymakers, and practitioners may find the hypotheses presented here to be of value in future investigations into ways to encourage college achievement.

Appendix A

**How City Performance Was Calculated in the
Talent Dividend Initiative**

To determine the \$1 million prize-winning city in the Talent Dividend competition, CEOs for Cities hired an independent consultant, Impresa, to track postsecondary educational outcomes along with population changes within each of the 57 participating cities. These data were then plugged into a calculation to determine each city's final rank. The calculation and data used are explained in detail below.

Postsecondary educational outcomes in each city were accessed and tracked using Integrated Postsecondary Education Data System (IPEDS)¹ data from two-year and four-year colleges in each city. Each city's geographic boundary was defined as its Metropolitan Statistical Area (MSA).² The analysis tracked the number of degrees awarded to students by individual colleges within each MSA in 2009-2010 and in 2012-2013. The number of degrees awarded at each institution in 2009-2010 was subtracted from the number of degrees awarded in 2012-2013 to calculate a change in degrees over the time period. Two-year credentials (associate's degrees) as well as four-year degrees and advanced degrees, such as master's and doctoral degrees, were included in the calculations. However, four-year and advanced degrees were weighted more heavily than two-year degrees. Cities received two points for every four-year and advanced degree earned in the MSA and only one point for each two-year degree. Workforce certificates and credentials from other short-term programs were not included in the calculations.

Additionally, calculations tried to account for the existence of online degrees and degree attainment by nonresidents by excluding those degrees that were not earned by residents within the MSA.³ Because earlier research by CEOs for Cities found a correlation between the percentage of degrees per capita and cities' economic success, the Talent Dividend calculation also took population into account. The population of each MSA in 2009-2010 and in 2012-2013 was tracked through the U.S. Census Bureau's American Community Survey. The total number of credentialing points awarded in each city during each time period was then reanalyzed as a ratio of degrees per 10,000 residents. The ratio for 2009-2010 was then subtracted from the ratio for 2012-2013 to come up with a final percentage change in degree attainment. The cities were then rank ordered based on that figure, with the city that had the greatest percentage change in degree attainment winning the competition.⁴

¹Nearly all institutions of higher education must report to IPEDS, making it the most comprehensive source of data on degrees awarded. IPEDS, which is operated by the U.S. Department of Education's National Center for Education Statistics, features a robust system of definitions, security, reporting, and data verification.

²To be eligible for the Talent Dividend competition, a metropolitan area had to have a population of 500,000 or more in 2010 or be the largest metropolitan area in its state.

³Living Cities (2014a).

⁴Talent Dividend Network (2012).

The setup for the calculations meant that cities' credential rates could be bolstered or reduced based on factors such as population growth (which reduced the percentage change in degrees) or the presence of more institutions granting bachelor's or advanced degrees (which received two points for each credential) than institutions that awarded associate's degrees (which received only one point).

Appendix B

Supplementary Tables

Appendix Table B.1

Top 10 Talent Dividend Cities, Number of Degrees Awarded in 2012-2013, and Percentage Change from the 2009-2010 Academic Year

Final Rank	City	Degrees Awarded in 2012-2013	Increase from 2009-2010 (%) ^a
1	Akron, OH	12,632	20.2
2	Portland, OR	24,774	17.6
3	Omaha, NE	10,036	17.1
4	Tulsa, OK	6,541	15.9
5	Syracuse, NY	12,881	15.9
6	Tampa, FL	32,402	15.0
7	Chattanooga, TN	4,506	14.1
8	Orlando, FL	30,421	13.5
9	Richmond, VA	12,860	12.9
10	Columbia, SC	10,048	11.7

SOURCE: Data provided by CEOs for Cities.

NOTE: ^aThe percentage increase uses the Talent Dividend formula, which weights four-year credentials more heavily than two-year credentials and accounts for population changes.

Appendix Table B.2

Changes in College Enrollment in Talent Dividend Case Study Cities from 2005 to 2013

	2-Year Institutions			4-Year Institutions		
	2005	2009	2013	2005	2009	2013
Akron	776	1,471	1,050	39,423	46,867	48,009
Columbia	7,248	8,655	8,735	29,351	33,663	36,890
Omaha	8,581	11,700	10,094	23,281	25,707	26,914
Orlando	8,996	13,586	11,716	68,502	88,406	97,642
Portland	25,757	33,712	33,498	44,195	50,277	53,902
Richmond	10,775	14,343	14,271	35,985	39,961	40,669
United States	3,770,389	4,718,562	4,531,015	9,169,128	10,285,861	10,851,007

SOURCE: Full-time equivalency data from the Integrated Postsecondary Education Data System (IPEDS).

NOTE: Gray highlighting signifies an increase in enrollment. Data from some institutions participating in Talent Dividend were not provided in IPEDS and therefore are not included in these calculations.

Appendix C

**Stakeholder Institutions Consulted
During the Case Study**

Appendix Table C.1

Stakeholder Institutions Consulted During the Case Study

Organization	Date of Contact	Type of Contact
<u>Talent Dividend initiative stakeholders</u>		
Kresge Foundation	6/25/15	phone interview
	6/17/16	phone interview
	7/18/16	phone interview
Say Yes to Education	6/25/15	phone interview
	6/17/16	phone interview
Impresa	10/22/15	phone interview
<u>Akron, Ohio</u>		
Northeast Ohio Council on Higher Education	7/16/15	phone interview
Hiram College	9/8/15	phone interview
Northeast Ohio Medical University	9/8/15	phone interview
University of Akron	9/9/15	phone interview
	11/4/15	site visit
Stark State	9/14/15	phone interview
Kent State	9/17/15	phone interview
	10/21/15	phone interview
	10/26/15	phone interview
	11/2/15	phone interview
	11/4/15	site visit
Summit Education Initiative (SEI)	10/15/15	phone interview
	11/4/15	site visit
Greater Akron Chamber of Commerce	11/5/15	site visit
<u>Columbia, South Carolina</u>		
Central Carolina Community Foundation	8/8/16	phone interview
Columbia College	10/13/16	phone interview
Midlands Technical College	10/13/16	phone interview
	3/20/17	site visit
University of South Carolina-Columbia	11/17/16	phone interview
	3/21/17	site visit
United Way of the Midlands	11/21/16	phone interview
City of Columbia Office of the Mayor	3/21/17	site visit
Chernoff Newman	3/21/17	site visit
Michelin Tires	3/21/17	site visit
EngenuitySC	4/5/17	phone interview

(continued)

Appendix Table C.1 (continued)

<u>Organization</u>	<u>Date of Contact</u>	<u>Type of Contact</u>
<u>Omaha, Nebraska</u>		
Greater Omaha Chamber of Commerce	7/20/16	phone interview
Metropolitan Community College	8/10/16	phone interview
	12/5/16	site visit
Bellevue University	8/10/16	phone interview
Avenue Scholars Foundation	9/9/16	phone interview
University of Nebraska-Omaha	10/31/16	phone interview
	12/6/16	site visit
Accelerate Nebraska	10/31/16	phone interview
Susan Thompson Buffett Foundation	12/5/16	site visit
Union Pacific	12/5/16	site visit
<u>Orlando, Florida</u>		
City of Orlando Office of the Mayor	2/15/17	phone interview
University of Central Florida	11/1/16	phone interview
	1/31/17	site visit
Valencia College	11/16/16	phone interview
	2/1/17	site visit
Helios Foundation	1/6/17	phone interview
Seminole State College	1/31/17	site visit
Orange County Public Schools	1/31/17	site visit
<u>Portland, Oregon</u>		
All Hands Raised Partnership	7/25/16	phone interview
	9/19/16	phone interview
Oregon Campus Compact	9/19/16	phone interview
City of Portland Office of the Mayor	10/6/16	phone interview
Portland State University	10/17/16	phone interview
	1/18/17	site visit
	1/19/17	site visit
Portland Community College	1/18/17	site visit
East Cascades Workforce Investment Board	11/16/16	phone interview
Mt. Hood Community College	1/19/17	site visit
Portland Leadership Foundation	2/27/17	phone interview
	12/7/16	site visit

(continued)

Appendix Table C.1 (continued)

<u>Organization</u>	<u>Date of Contact</u>	<u>Type of Contact</u>
<u>Richmond, Virginia</u>		
Bridging Richmond	7/21/16 12/7/16	phone interview site visit
The Community Foundation Serving Richmond and Central Virginia	8/8/16 12/7/16	phone interview site visit
Reynolds Community College	8/8/16	phone interview
John Tyler Community College	8/12/16 10/18/16 12/6/16	phone interview phone interview site visit
Virginia Commonwealth University	9/14/16 10/12/16 12/7/16	phone interview phone interview site visit
University of Richmond	12/6/16	site visit
Virginia State University	12/6/16	site visit
Management Round Table	12/7/16	site visit

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About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York; Oakland, California; Washington, DC; and Los Angeles, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff members bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-prisoners, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.