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POV423 - Winter 2017

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Mitigating the Rural Brain Drain: A Redesign of Dual Enrollment

*Abstract*

Students in rural high schools are routinely underperforming when compared to urban and suburban students. Dual enrollment programs, which allow high school students to simultaneously earn postsecondary credit, has been found to improve educational attainment and future outcomes. Unfortunately, dual enrollment in its current structure is contributing to the brain drain, the sociological phenomenon where high-achieving students move away from their communities, leaving the low-achieving students behind. The brain drain exacerbates poverty and lack of opportunity, especially within rural American communities. Dual enrollment programs need to be redesigned to serve the students that will likely leave and the students that will likely stay. Not only are there long-term economic benefits to this, but also, according to Martha Nussbaum's Central Capabilities approach, restructuring dual enrollment to expand the central capabilities of both types of students is the ethical thing to do. I argue that dual enrollment should continue to support college-bound students, but also expand into partnerships with trade schools and vocational-technical programs, making postsecondary options more accessible to the students most likely to stay in their rural community.

*Acknowledgments*

Thank you to Katrina Bitar and Erin Ghata for teaching me why it is necessary to recognize the humanity in everyone we meet.

Thank you to my fellow classmates in POV423 for helping brainstorm, refine, and revise this project.

Thank you to Professor Tim Diette for your expertise in the economics of education.

Thank you to Sonia Brozak '17, Thomas Joyner '18, and Anna Daccache '19 for supporting and encouraging me throughout the writing process. Without you three, this project would have never been completed.

Finally, thank you to Professor Kelly Brotzman for guiding me throughout my poverty and human capability studies education. You have expanded my own capabilities, and for that, I am eternally grateful.

## *Introduction*

The most recent data depicts a grim story for rural America. The U.S. Census Bureau reports that 18.9% of those in rural areas live in poverty (U.S. Census Bureau). Not only is this percentage larger than those living in urban America (15.1%), but the poverty rate has consistently been on the upswing since 1999, finally reaching the highest that it has been in over 30 years. (USDA ERS, “Poverty Overview”). The median household income for rural Americans is at the lowest it has been since 2000 (USDA ERS, “Income”). Additionally, one-fourth of children (25.2%) in rural America live in poverty compared to about one-fifth of children (21.1%) in urban America (USDA ERS, “Child Poverty”). In fact, rural poverty is more intense in every category—racial minorities, single mothers, senior citizens, etc. (USDA ERS, “Poverty Demographics”). Although 46.2 million people call 72% of the Nation’s land area home, this only represents a mere 14% of the country’s population (USDA ERS, “Population and Migration”).

While the numbers are indeed alarming, they are nevertheless unsurprising. Rural communities lag behind national averages on a routine basis in almost every measure of comparison. Remote areas, simply because of their geographic seclusion, struggle to keep up with the rest of the country. Some of the most isolated communities in the U.S. have even lacked access to basic utilities such as water, electricity, and telephone service until recently (Koricich, 3).

Luckily enough, there is a multiplicity of programs aimed at improving the outlook for those in rural America. Many of these initiatives target the system that is intended to equalize opportunity across the board: public education. However, this is no small feat. The overall condition of rural education is similarly disconcerting. In 2007, The National Center for

Education Statistics determined that the high school dropout rate is higher in rural areas than suburban areas (11.1% and 9%, respectively), and that the percentage of adults with a bachelor's degree as their highest level of educational attainment was lower in rural areas (13%) than the national percentage (17%). The same study found that students were significantly less likely to enroll in colleges and universities when compared to cities, suburban areas, and towns (NCES). More recent research demonstrates identical trends. A Texas Tech University researcher discovered that students from rural areas were less likely to enroll in college altogether, less likely to enroll in more selective institutions, but more likely to enroll in 2-year institutions (Koricich, 23).

This poor educational attainment could stem from the fact that students in rural America expect less of themselves. Research has demonstrated that an unfortunate distinguishing feature of rural schools "is their longstanding trend of lower educational aspirations, achievement, and attainment compared to youth in other areas" (Demi, Coleman-Jensen, and Snyder, 1). A nationally representative study analyzing youth aspiration also determined that vocational expectation looks different for rural students when compared to urban and suburban counterparts. Although rural students were the least likely to anticipate achieving a bachelor's, master's, or doctorate, they were the most likely to expect completing vocational school (Cobb, McIntire, and Pratt, 13). Rural youth also "value making lots of money less than urban youth, and they value friendships more" (Cobb, McIntire, and Pratt, 15). All of this indicates that the culture in rural America places less emphasis on achieving higher levels of education.

This means that attempts to increase educational prospects in rural America need to be strategically integrated within high schools, before students are faced with the option of pursuing postsecondary education. One potential avenue for improving educational attainment among

students is through bolstering dual enrollment programs. Dual enrollment allows for a high school student to simultaneously matriculate, earning credit(s) towards a postsecondary institution. These programs and their counterparts, such as dual credit and concurrent enrollment, are known as credit-based transition programs, a category that also includes International Baccalaureate programs (IB), Advanced Placement (AP), and early college high schools (Hofmann, 1). Many experts in the realm of educational research believe that dual enrollment programs are one of the most sure-fire ways to better prepare students for college. In fact, one study found that students who completed dual enrollment programs were 10% more likely to graduate from college than those who did not (An, 62). Hofmann writes that “dual enrollment embodies the college transition agenda from its unique position in the middle space—or gap—between high school achievement and college readiness” (Hofmann, 3). So why would policymakers not move forward full throttle with dual enrollment in rural high schools? Unfortunately, doing so with incognizance could have potentially deleterious effects.

In recent years, there has been an unparalleled outflux of people (especially youth) from rural America. The USDA reports that at least 650,000 people have migrated from these areas since 2010 (USDA ERS, “Population and Migration”). Economists and sociologists have dubbed this rapid youth exodus from nonmetropolitan areas as the “rural brain drain”. Patrick Carr and Maria Kefalas write in *Hollowing out the Middle: The Rural Brain Drain and What It Means for America*, their ethnography about the pseudonymous Ellis, Iowa, that although “the brain drain phenomenon does not afflict only the countryside...the picture is particularly bleak for rural America where, in any given year, more than 6 percent of America’s nonmetropolitan bachelor’s degree-holders migrate to a metropolitan area” (Carr and Kefalas, 5). Research from the USDA Economic Research Service found that the brain drain intensifies poverty in rural areas (Marré,

2). Not only does the brain drain deteriorate their respective rural communities, but it has disastrous consequences for the remainder of the country. In an interview with the Chronicle of Higher Education, Carr and Kefalas claim that rural America “is the place where most of our food comes from; it can be ground zero for the green economy and sustainable agriculture; it is the place that helps elect our presidents, and it sends more than its fair share of young men and women to fight for this country” (Chronicle of Higher Education). Failing to recognize the central role that rural America plays in the overall vitality of the U.S. would prove detrimental to the country’s many economic, political, and social systems.

Therefore, every policy proposal which impacts rural America must be constructed deliberately, as to strike the balance between individual and community prosperity. The appropriate question then becomes can dual enrollment programs be designed in rural high schools as to improve future outcomes without further exacerbating the effects of the brain drain? If so, how? If not, how can those negative consequences be mitigated, or even reconciled?

### *Rural Brain Drain*

One major obstacle standing in the way of investigating the rural brain drain is that there is little research on the subject. Carr and Kefalas’ book, published in 2009, currently stands as the first (and only) piece of evidence that explores this phenomenon in depth. This likely results from the fact that quantitative and qualitative data are more challenging to collect in remote areas than densely populated areas, which is ultimately why Carr and Kefalas had to move to rural Iowa for 6 months, conducting their own research, in order to better understand the situation. While the stories the authors recount are specific to Ellis, Iowa, the underlying plotline is by no means unique to the town. The tale of Ellis, and the narratives therein, are widespread. It would,

of course, be irresponsible to assume that histories do not vary between rural communities.

However, given the overwhelming lack of data, Carr and Kefalas' work will serve as the guiding text for this essay in attempting to make sense of the rural brain drain.

Carr and Kefalas recognized four different categories that capture almost all of the people in a rural community: the achievers, the stayers, the seekers, and the returners (which are further characterized as either high-flyers or boomerangs.)

The authors write that “the young people destined to be achievers are the Ellis equivalent of a homegrown aristocracy” (Carr and Kefalas, 19). They found that “most, but not all, of the kids who attended universities were [kids] whose mother and father attended college themselves...but other kids came from families in which college would not be a likely destination without direct encouragement from assorted interested adults outside the family” (Carr and Kefalas, 20). Carr and Kefalas go on to note that:

Being one of the students whom the teachers and staff treated differently had the power to change a young person's future: their talents and ability made them recipients of their teachers' and neighbors' attention. Those kids were placed on a different trajectory because the entire town was behind them, cheering for them to make it and supporting them in concrete ways. These young people had the sense that the town's inhabitants instilled all their hopes, best wishes, and expectations in their futures (Carr and Kefalas, 20).

However, this overwhelming community support represents a poor allocation of resources. They argue that “since fewer than half of the achievers will live in Iowa after earning their degree, the whole system suffers from an undeniable inefficiency...paying so much attention to the achievers drains Ellis' resources, as it serves young people who are least likely to give anything back to the town” (Carr and Kefalas, 20).

The most defining characteristic of the stayers are the speed with which they start to look and act like adults. Carr and Kefalas' research found that the stayers “transition to adulthood and



families, jobs, and grown-up lives far more quickly than their peers who out-migrate” (Carr and Kefalas, 20). However, the authors touch on the double-edged sword of avoiding “failure to launch” syndrome:

The other key to avoiding the pitfalls of extended adolescence is that stayers do not attend college. Twenty-somethings coming of age in small towns can still find jobs in blue-collar occupations such as factory work, auto repair, and construction. The conundrum is that many of these jobs are particularly prone to stagnating wages, disappearing benefits, and downsizing. And within a decade of leaving high school, nearly one-fifth of the young people we studied who were stayers had stopped their education and had never lived anywhere but Ellis or Liberty County (Carr and Kefalas, 21).

There is no arguing whether or not the stayers are the most visible vestige of the rural brain drain, as they are the ones “grappling with a languishing economy, a dying small town, and a fading way of life” (Carr and Kefalas, 21).

Next, there are the seekers. These are the individuals that “devote their childhood and teenage years plotting their escapes” (Carr and Kefalas, 21). Carr and Kefalas found that “for the seekers the most common pathway out is via military...Ellis High School records show that at least 10 percent of every class enlists annually” (Carr and Kefalas, 22). They continue:

Those headed to the military were never destined for college—not because they don’t want a degree, but because their parents can’t afford it. Neither the best nor the worst students, they are also not the most affluent or the poorest...They may lack the grades and money to attend the University of Iowa, but they have no desire to settle into married life with their high school sweetheart or get a dead-end job (Carr and Kefalas, 22).

In short, the seekers are those who believe that they were not made for small-town life.

Finally, the returners are split off into two different types: the high-flyers and boomerangs. The returners are “those twenty-somethings who return to small towns armed with college degrees and entrepreneurial ambitions...the men and women whom Iowa’s boosters long to bring back home” (Carr and Kefalas, 22). The authors offer a commonly heard story from the returners:

A very select sort of kid, on track to be the quintessential, college-bound, ambitious achiever, uses the college years to figure out that big-city life is not what he or she wants or needs, and, ultimately, opts to reverse course. Surrounded by valedictorians, captains of the lacrosse team, and suburbanites who took calculus in high school and spent their summers in Europe, returners abandon the achiever trajectory. They describe college as a time when they could not find their footing and became increasingly disillusioned with a world that had seemed so appealing when it was just a daydream (Carr and Kefalas, 23).

Although the high-flyers are the ones to whom politicians market the state, Carr and Kefalas discovered that most of those coming home are the boomerangs, “young people who have far more in common with the stayers than the achievers” (Carr and Kefalas, 23). The boomerangs are usually the former enlisted men and women who move back after leaving the armed forces and the mostly female graduates of community colleges. Carr and Kefalas state that:

Boomerangs, who tend to be young women, graduated from their two-year programs in accounting or nursing and acquired husbands, full-time jobs, and mortgages—in short, they eagerly embarked upon genuinely grown-up lives... They have chosen the safe and familiar, and, like young people of another time, they have no desire to delay pursuing the more traditional goals of early adulthood: marriage and family (Carr and Kefalas, 24).

If anything, the stayers, leavers, and returners indicate that small, rural towns play a large part in their self-demise. Carr and Kefalas claim that “teachers, parents, and neighbors feel obligated to push and prod the talented kids to succeed, yet, when their best and brightest follow their advice, the investment the community has made in them becomes a boon for someplace else, while the remaining young people are neither afforded the same attention nor groomed for success of any kind” (Carr and Kefalas, 24). This seems intuitive. It makes almost zero sense to expend time and energy on the cadre most likely to succeed and leave while neglecting the needs of the kids with fewer options and resources, the kids most likely to stay.

So, given the four types of students throughout rural America, should the architecture of dual enrollment programs find ways to prevent the achievers from leaving, or should it develop

partnerships that will improve the outcomes for the stayers, leavers, and returners? To answer that question, it is imperative to understand dual enrollment within the context of rural America.

### *Dual Enrollment in Rural America*

Dual enrollment programs are not a foreign concept to rural America. In fact, as of 2013, rural schools were more likely than urban and suburban schools to have dual enrollment programs (Ralph, 6). A study, commissioned by the National Center for Education Statistics, comprehensively examined dual enrollment programs across the country. It also found that not only were rural communities more likely offer dual enrollment, but that 631,900 rural high school students were enrolled in these programs, the largest nominal cohort across all regional types (Ralph, 8). Among high schools offering dual enrollment, 94% had students participating in programs with an academic focus and 55% had students in courses with a vocational or technical focus (Ralph, 9).

However, when compared to town, suburban, and urban schools, rural schools were the least likely to offer the dual enrollment programs on the college campuses (52%, 48%, 46%, and 37%, respectively) (Ralph, 10). Furthermore, rural students were significantly more likely to take dual enrollment courses via distance education (albeit, of varying quality) than students from towns, urban, and suburban areas (38%, 28%, 15%, and 13%, respectively) (Ralph, 10). Additionally, rural students were more likely than not to be taught by high school instructors in their dual enrollment courses than by postsecondary instructors in both academic and vocational/technical programs (57% and 66%, respectively) despite the numerous standards pushing for dual enrollment courses to be taught by postsecondary instructors only (Ralph, 19). Together, this information indicates that while dual enrollment is readily accessible to rural high school students, its current design is lackluster, especially when compared cross-regionally.

The Education Commission of the States conducted a study in 2014 to determine the most common challenges that are specific to rural high schools in implementing high-quality dual enrollment programs successfully. The research concluded that there are three main obstacles. The first is “securing qualified instructors, either high school teachers who have the qualifications to lead college-level courses or postsecondary instructors” (Zinth, 1). This is corroborated by the aforementioned NCES data. Secondly, a large problem is “covering program costs, as many rural districts face declines in enrollment and the funding that follows students in many states” (Zinth, 1). The program costs differ by state because of disagreements over who should bear the financial burden. In 9 states, the students/parents are fully responsible, while 14 states and D.C. allow for localities to determine how the costs should be split between the students/parents, local school district, state government, and postsecondary institution (ECS). The third hurdle is “addressing program logistics, including the challenges of offering a course to small number of students and offering career/technical education coursework when high schools may not have the latest technical equipment but the nearest community college is a long drive away” (Zinth, 1). This barrier is also detectable in the NCES research. The Education Commission of the States does not claim that these challenges to implementing high-quality dual enrollment programs are intractable. Rather, it lists out examples of ongoing strategies aimed at ameliorating those specific concerns.

Securing qualified instructors is not easily done. The report states that “to help ensure that high school staff teaching dual enrollment are equipped to teach college content, many state policies require high school instructors to meet the same qualifications as postsecondary faculty at the partnering institution (i.e., for academically-oriented courses, have completed a master’s degree and a minimum of 18 credit hours master’s-level content in the subject of the course).”

However, rural districts often have greater difficulty recruiting and retaining teachers with these advanced qualifications (Zinth, 2). Some states have developed approaches to address this concern. One such avenue is offering financial aid for high school instructors. Minnesota currently mandates that their school districts allocate two percent of its revenue for professional development. Conveniently, they also allow for districts to transform this reserved revenue into grants that teachers may use to pay for courses leading to certification as a dual enrollment teacher (Revisor of Statutes, State of Minnesota). Wyoming has created a loan repayment program to help high school teachers complete the remaining credits that they need in order to teach postsecondary-level courses (State of Wyoming). Unfortunately, financing master's credits is only one side of the equation. In reality, it may be rare that four-year institutions offering a particular master's program exist in a given region, or that online master's programs are even available. Fortunately, the Ohio Appalachian Collaborative is working to fix just this. The OAC is a joint effort led by Battelle for Kids and 21 rural Ohio school districts (serving over 34,000 students), working to expand dual enrollment courses and expand the amount of rural high school teachers that are eligible to instruct dual enrollment courses (Battelle for Kids, 16). The OAC has partnered with 8 higher education institutions to design a "dual enrollment credentialing program that leads to an 18-month master's degree in a blended online/in-person delivery method that is teacher-friendly in regards to course scheduling" (Zinth, 4). This approach has significantly improved access to dual enrollment within the region. The report uncovered that "from 2011 to 2013, the number of dual enrollment courses available in OAC districts jumped 246 percent, from 41 to 142 [and] the number of students participating in dual enrollment classes has grown by 186 percent, from 457 to 1,308" (Battelle for Kids, 18). This model indicates potential for replication across various states and regions.

These are all noteworthy ways to improve dual enrollment in rural America. Increasing the amount of certified instructors is critical in order to offer quality education to high school students. However, adding more qualified dual enrollment teachers is not the silver bullet for increasing educational attainment for all rural students. Indeed, expanding dual enrollment is a good measure to take. Yet, until it is developed in such a way that accounts for the brain drain, dual enrollment will continue to contribute to the deep poverty experienced by rural America. Before examining possible ways to redesign dual enrollment, ethical paradigms must be considered.

### *Ethical Framework*

It is tempting to examine this situation from a cost-benefit standpoint. To analyze this situation in a social utilitarian framework, one would simply look at all of the options, and pursue the one which maximized utility (happiness) to the largest amount of people. In the context of rural America, the maximized utility could ultimately come at the cost of some individuals. Imagine a situation in which a cost-benefit analysis determined that the best option is to only invest in dual enrollment programs that will keep as many students in a given rural community as possible. In theory, this could look like a dual enrollment program that offered course credit upon completion, but only to the college or university at which the rural student was enrolled dually. Perhaps this program was designed as to increase the incentive to attend college locally, as opposed to elsewhere in the state or nation. While social utilitarianism could dictate that this would be the most ethical avenue to continue down, it could come at the expense of the freedom of some students.

Martha Nussbaum's Central Capabilities approach "takes each person as an end, asking not just about the total or average well-being but about the opportunities available to each person" (Nussbaum, 18). This approach provides a stronger ethical framework for analyzing the clash between dual enrollment and the rural brain drain. While critics are quick to reject the individualistic nature of the capabilities approach, this framework examines "not just abilities residing inside a person but also the freedoms or opportunities created by a combination of personal abilities and the political, social, and economic environment" (Nussbaum, 20). This ethical framework evaluates the systems at play, while placing the utmost importance on the person, and his or her potential.

Nussbaum even offers a direct critique against social utilitarianism. She writes that social utilitarianism "focuses on satisfaction as a goal" which is understood as "a state or condition of the person that follows activity; it is not itself a form of activity, and it can even be achieved without the associated activity" (Nussbaum, 55). Nussbaum introduces Robert Nozick's concept of the experience machine. Being hooked up to such a machine could simulate "the illusion that you were loving, working, or eating, and you would have the experiences of satisfaction associated with those activities—but in reality you would be doing nothing at all" (Nussbaum, 55). Nussbaum agrees with Nozick that most would not choose the experience machine, but instead "prefer a life of choice and activity, even knowing in advance that many of the activities would end in frustration" (Nussbaum, 55). She claims that social utilitarianism "undervalues freedom...which can be valued as a means to satisfaction" (Nussbaum, 55-56). This is something that utilitarians and capability theorists can agree on, given that they both underscore the "instrumental importance of freedom" (Nussbaum, 56). Nevertheless, Nussbaum continues that

the “freedom to choose and to act, however, is an end as well as a means, and it is this aspect that the standard utilitarian position cannot capture” (Nussbaum, 56).

Nussbaum’s Central Capabilities framework accounts for freedom as both means and end. She argues that all citizens must be guaranteed “at least a threshold level” of these ten central capabilities: life; bodily health; bodily integrity; senses, imagination, and thought; emotions; practical reason; affiliation; other species; play; control over one’s environment (Nussbaum 33-34). This approach “stipulates that the goal is to produce capabilities for each and every person, and not to use some people as a means to the capabilities of others or of the whole” (Nussbaum, 35). Nussbaum asserts that the Central Capabilities approach recognizes humans as an “irreducible heterogeneity” (Nussbaum, 35). Therefore, policies should provide for all individuals.

In rural America, this means that dual enrollment programs should cater to the capabilities of all students—the achievers, stayers, seekers, and returners. Not doing so would certainly violate their central capabilities of practical reason and senses, imagination, and thought.

### *Policy Recommendations*

Dual enrollment programs in their current form may actually be contributing to the rural brain drain. NCES data from 2013 revealed that of the students participating in dual enrollment, only 28.2% of them were earning credit towards in vocational-technical programs; the other 71.8% involved in dual enrollment were earning credit towards colleges and universities (Ralph, 11). By predominantly connecting the achievers to college-level courses, as is currently the case, they further exacerbate the student trajectories. This can be remedied by reevaluating the goals of



dual enrollment. Credit-based transition programs (dual enrollment included) exist to better prepare students for various postsecondary options. Dual enrollment specifically exists to expose students to the postsecondary environment in a manner that is more concrete than IB and AP programs. Through dual enrollment, students can develop a deeper understanding of postsecondary expectations, which will increase their likelihood of transitioning out of high school effectively.

These goals are not limited to colleges and universities. Expanding dual enrollment partnerships with vocational-technical programs will still achieve the desirable outcomes of preparing students for a viable postsecondary option and familiarizing them with new types of educational demands. Moreover, broadening dual enrollment to encompass vocational-technical programs would provide an academic alternative to the stayers. A study conducted by Columbia University in tandem with the National Research Center for Career and Technical Education found that high school students who participate in vocational-technical dual enrollment programs fare better than those who do not, which is consistent with prior research on academic dual enrollment (Karp, 5). This would also directly maximize one's capabilities of practical reason and senses, imagination, and thought, while potentially expanding the capability of control over one's environment. Recognizing dual enrollment as a vehicle for expanding capabilities for all students makes for a compelling ethical argument.

However, there is additionally an economic argument to be made in regards to why dual enrollment should also benefit the stayers. These students are the ones most likely to work in blue-collar jobs immediately high school (Carr and Kefalas, 20). Connecting these students to programs leading to certifications could then facilitate higher wages (Heckman, Humphries, and Veramendi, 46). In fact, one study found that wages increase steadily among students with every

additional career-technical education (CTE) course that they take (Dougherty). Increased earnings in rural communities would subsequently lead to less poverty and strengthened grassroots economies.

As demonstrated, there are ethical and economic benefits to be incurred from expanding dual enrollment into vocational-technical programs. This expansion can generate from two ends: the high schools and the vocational-technical programs. Either high school administrators, teachers, and counselors can more actively encourage their students to enroll in dual enrollment courses, or vocational-technical programs can more actively recruit these students. While both are important, having this responsibility fall on the vocational-technical programs is ultimately not the best strategy.

Even though the stayers outnumber the achievers, there are still more achievers taking dual enrollment courses. Rural high schools need to examine the resources they offer students and consider how their role influences the decisions that students make. If instead, rural high schools started to think about devoting equal resources and energy to both academic and vocational-technical dual enrollment programs, the story would likely change.

One concern is that expanding dual enrollment (regardless of its restructure) at all could push stayers towards the achiever trajectory, thereby furthering the rural brain drain. While there is no data suggesting that this would occur, it is important to note that there is nothing inherently problematic about that possibility. All students should have the opportunity to fulfill their central capabilities. If more students were made aware of postsecondary options available to them because of the dual enrollment expansion, they should be able to pursue those options. The ability to choose one's own path is powerful and indicates that ethical systems are set in place. The hope, however, in expanding dual enrollment to incorporate vocational-technical programs

more prominently, is that more students would be able to achieve their central capabilities. Consequently, in expanding some of those capabilities locally at vocational-technical programs, these students would be able to earn higher wages within their communities. Over time, poverty would decrease, local economies would improve, and some of the brain drain's harmful effects would be mitigated.

Finally, it is important to recognize the lack of research around the rural brain drain. Carr and Kefalas' investigation into this phenomenon has been critical in alerting the public to this rural endemic. However, it is challenging to make causal conclusions and offer suggestions about how to address the brain drain when there is little data on it. Research into rural America, with a special emphasis on the outmigration of youth, should become a priority in the coming years. Rural America is integral to the success of the entire country, which is why the federal government should ultimately bear the financial burden. The USDA sponsored and conducted (via their Economic Research Service branch) much of the research on rural poverty and outmigration used in this project. Given the high quality of their previous research, they should be charged with the responsibility to continue studying this phenomenon.

### *Conclusion*

The allure of life in the big city is undeniable for many kids in rural America. This dream is just more realizable for some than others. The achievers work hard in school, but are also more likely to come from affluent families with additional resources that give them a leg up. Their work ethic and relative socioeconomic advantage compound in such a way that leads them away from rural communities following high school graduation.

The rural brain drain must first be recognized as natural in order to successfully develop programs aimed at counteracting it. Any reevaluation or redesign of a program in rural America must learn how to work with the rural brain drain, rather than attempt to circumnavigate it. Not doing so could worsen the situation, which is why dual enrollment must be restructured thoughtfully as to find ways to improve outcomes for communities and individuals. This can be accomplished by expanding dual enrollment to serve the students most likely to stay in rural communities. Targeting these students improves their life outcomes and eventually the outcome of the community. If dual enrollment begins to more actively connect the stayers to opportunities at vocational-technical programs, then increases in educational attainment, wages, and health would all be expected.

Redesigning dual enrollment programs will not solve the rural brain drain. It will, however, mitigate some of its negative impact. Although there is more work to be done in rural America, this is a step in the right direction.

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