

INTRODUCTION:

Unfunded CPS mandates to “improve” post-secondary outcomes for students will fail without an adequate investment in students and staffing.

Beginning with the class of 2022, students cannot graduate from CPS without proof of a solid post-secondary plan: enrollment in college or an apprenticeship program, employment, or military service. This new high school graduation requirement is one of Chicago Mayor Rahm Emmanuel’s primary propositions to telegraph to city residents – including voters – that he’s working to improve educational outcomes for public school students.

Yet many of the mayor’s school policies continue to instead undermine both educational outcomes and educational stability for our students.

We propose a wiser and more sustainable two-pronged path forward:

- CPS must expand its investment in CTE – Career and Technical Education programs – to expand students’ access to living wage post-secondary work and careers and enhance the pool of workers that today’s employers need and seek;
- CPS must adequately staff the critical positions – including those of school counselors – that are essential if Emanuel’s graduation mandate is to succeed instead of serving as another barrier to a high school diploma for disadvantaged students.

BACKGROUND: The mayor’s unfunded CPS graduation mandate

On January 18, Emanuel announced that he’d be working with City Colleges to offer ‘college navigator’ assistance to 1,000 high school students – less than 1% of our high school students. This announcement came on the heels of CPS’ announcement that they will be “working with City Colleges to put more support in schools that need more support with counseling kids.”¹ While it’s not clear exactly what this ‘collaboration’ will look like, we can expect, based on past practices, that CPS will try to do this on the cheap – with little concrete accountability and at the expense of our students.

While the mayor’s high school graduation mandate sounds reasonable on its face, the acute shortage in current staffing levels and excessive workloads for high school counselors and college/career coaches guarantees that this policy cannot succeed without additional certified school counselors. CPS today struggles under an acute shortage of counselors and other staff who are essential to successful post-secondary planning for students. At the same time, CPS has disinvested in the very Career and Technical Education programs –CTE – that prospective employers look to for new workers in fields from construction and manufacturing to technology and the health sciences.

As this report will show, CPS policies contribute to limited employment opportunities in Chicago for CPS students, hurting their chances for post-secondary college and career success. There is little to indicate that partnering with City Colleges, which has been rocked by scandal in recent years, will substantively improve students’ opportunities or allow them to meet the new graduation mandates – particularly given the mayor’s tacit admission that few students will benefit from any City Colleges support in

¹ Janice Jackson, as reported by [Fran Spielman](https://chicago.suntimes.com/chicago-politics/emanuel-moving-to-remedy-defect-in-his-new-high-school-graduation-requirement/), January 15, 2018, here: <https://chicago.suntimes.com/chicago-politics/emanuel-moving-to-remedy-defect-in-his-new-high-school-graduation-requirement/>

meeting the new mandate. And without adequate investment in CTE, living wage work opportunities will continue to be walled off to thousands of CPS students each year.

COUNSELOR WORKLOADS

Helping teenagers successfully navigate through high school takes a team of staff working in concert with each student – and a well-resourced team approach is even more critical for teens who come from disadvantaged communities with high unemployment and poverty rates. Yet CPS ranks nearly dead last – 28 out of 30 – among Cook County high school districts for counselor-student ratio (ISBE, 2016).

CPS would need to hire at least 95 additional counselors (one per high school) to ensure that staff have the time to help students develop meaningful post-secondary plans, as well as fulfill their many other duties. Here is what one school counselor had to say about the plan to make post-secondary plans a graduation requirement:

The way I've always viewed the role of a Professional School Counselor is to help remove road blocks to student success. Although having solid future plans tied to individualized goals is exactly what we want and work hard to provide for our students, I'm concerned that the new graduation mandate puts another road block in front of our high schoolers. Are there going to be enough job offers for our high school seniors when they are ready for them and need an offer to be allowed a diploma? Are there enough counselors in CPS to ensure college applications are processed in time to garner an acceptance prior to high school graduation? Will this push some of our high schoolers into joining the military as a last resort to ensure they receive a HS diploma simply because they did not want to pursue college, did not get accepted into a trade school/gap year program, but didn't have a job offer?

If the sentiment behind this requirement is to help our students be successful post-high school, then CPS needs to fully resource all of our schools. Right now, Counselors in CPS are subject to the whims of our current Principals. We've also advocated for ratios in every school to be in line with the American School Counselor Association of 250:1 Student-to-Counselor. Unfortunately, there's a wide variation in caseload numbers across CPS schools. In addition to fully staffing counselors at our schools, CPS should be fulfilling all legally mandated special education service minutes; providing equity in wrap-around services of social workers, school psychologists, and other clinical services; and hiring enough teachers to provide a full robust curriculum. I strongly believe that resourcing our schools would be the best plan of support to help CPS Students have successful, achievable post-high school plans, ones that are meaningful to our students.

Winnetka's New Trier High School – the alma mater of Mayor Emanuel – is an example of a high school that does it right: students are assigned to a case manager who works with them weekly from freshmen year through senior year, including meeting with the student's parents, to ensure that they have a solid post-secondary plan in place by the time they graduate. Another good example is Elgin Unified School District 46, where students and parents from 5th grade to 10th grade are invited to the annual Career Expo at Elgin Community College. At the Expo, visitors can discuss career pathways with teachers, guidance counselors, local organizations and industry experts. Elgin USD 46 also staffs each middle school and high school with a career specialist, and introduces students to CTE in middle school.

CPS could also increase the pool of post-secondary plans available to high school students by putting greater emphasis on Career and Technical Education (CTE) programs. The CTE committee of the Chicago Teachers Union (CTU) has conducted extensive research on national best practices in CTE, looked

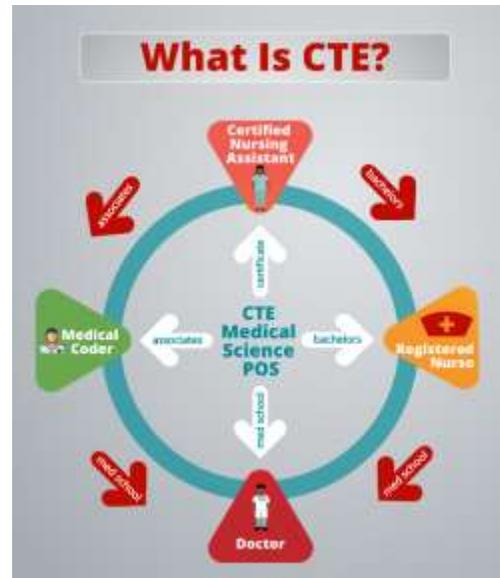
carefully at CPS data, and interviewed dozens of experts, students and teachers to develop a solid list of recommendations to stabilize and strengthen the CTE program.

WHAT IS CTE?

Career and Technical Education (formally known as vocational education), properly implemented, provides a bridge from childhood education to an adult working career. Successful systems in Europe and parts of the United States start CTE as early as 6th grade, and continue through high school. CTE graduates may leave high school qualified for an entry-level job, and/or continue their education – in some cases through post-doctoral specialization.

In the health science program of study (POS), for example, students in CTE can graduate with one of many industry-recognized certificates and go straight into the workforce, or they can use their CTE coursework as a way to jumpstart their entry into college, including medical school.

High school work-based learning experiences such as job shadows, apprenticeships, internships and Career-Technical Student Organizations (CTSOs) enhance career prospects for all participants, regardless of eventual attainment (Stone & Lewis, 2012). Exposure in the work environment during high school provides an understanding of the career pathways and expectations of these professions. As one former CTE student told CTU, “When we went to Ariel Investments on a field trip, I immediately thought to myself, ‘I can see myself working here².’”



CTE helps students stay in school through engaging hands-on classes, small class sizes, and a close relationship with CTE teachers through the series of courses within a program of study.

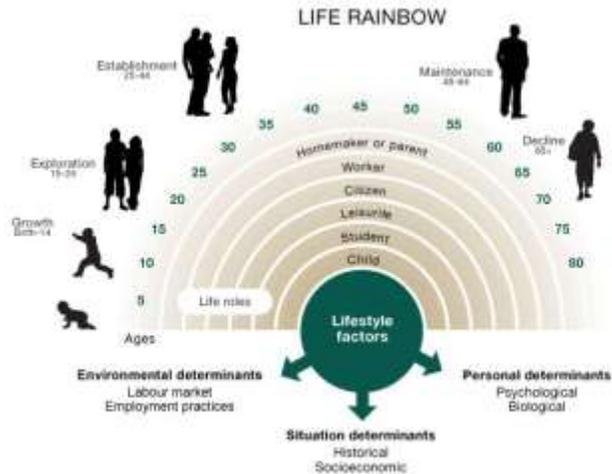
CAREER AWARENESS NEEDS TO BEGIN IN THE MIDDLE GRADES

Problem:

- Students can begin to become disengaged from education in the middle school years without direction and education about prospective post-secondary options for careers and college;
- Too many CPS students are not aware of CTE program options, causing low enrollment in some high schools that leads to program closure;
- Waiting until sophomore year to begin CTE awareness is too late, because students are locked into a program that may not be suitable for them.

² Charise Flowers, Julian High School class of 2015. Charise was enrolled in the Business and Finance program and interned at the Chicago Teachers Union through the work study program. Charise is now pursuing a college degree in accounting with a minor in finance.

Emanuel's new graduation mandate requires every high school senior to put into writing a post-secondary plan and document post-graduation employment, admission to college, or military service. CPS schools will need more counselors to help students develop these plans, and CPS will also need to expose students to possible careers in middle school. According to psychologist and career development theorist Donald E. Super, it's during the *growth stage* (ages 4 – 13) that children are developing critical life skills that will prepare them for academics and, eventually, careers; thus, schools should be introducing career exploration in elementary school (Stone and Lewis, 2012).



The Association for Career and Technical Education details why middle school is the perfect time to introduce students to careers (ACTE, 2016). They note that middle school is a time when students can start to become disengaged with their education, but are beginning to think abstractly and to relate what they're learning to everyday life. These factors make the middle school years an ideal time to introduce CTE to students.

CPS acknowledges that students would benefit from exposure to CTE in the middle grades (CPS, 2012) but the district has never made this a real priority, except to partner with a national nonprofit organization called Spark that runs apprenticeship and mentoring programs with local businesses. Most elementary schools' Continuous Improvement Work Plans (CIWPs) list a single career day as the primary chance for students to learn about Spark.

While the work of Spark is laudable, the organization has reportedly served 1,000 students since 2011 – barely one-fifth of one percent of CPS students enrolled TODAY, and less than one percent of CPS secondary students enrolled this year alone. This endeavor in CPS is both stunningly inadequate and profoundly narrow in reach. Many elementary schools reported needing assistance in developing career awareness programs in their CIWPs, which indicates that this should be an internal and citywide program, rather than an endeavor limited to the funding and outreach capacity of a single nonprofit organization.

The CTU CTE Committee successfully proposed resolutions encouraging the creation and support of middle school exploratory CTE programs at the Illinois Federation of Teachers and the American Federation of Teachers annual conventions in 2016³. CPS has acknowledged numerous times over the last two decades that expanding CTE to the middle grades will help boost enrollment and success in high school CTE – yet neither top CPS brass, the mayor's hand-picked school board or the mayor himself have deployed any meaningful effort to do so.

³ To read the AFT resolution, "Introduce Exploratory Career and Technical Education (CTE) Courses in the Middle School Grades, and Restore and Expand CTE in All High Schools," please visit: <https://www.aft.org/resolution/introduce-exploratory-career-and-technical-education-cte-courses-middle-school>

Solution: Introduce Career Awareness in Middle School

- Provide students with group-based, hands-on learning experiences that support their intellectual development and curiosity;
- Take students on site visits to companies and work locations, and invite guest speakers to classrooms to expose students to a variety of career opportunities and the steps needed to get there;
- Implement middle school exploration programs linked to career and technical education programs of study in high school.

CAREER AND TECHNICAL EDUCATION IN DISARRAY

Problem:

- CPS routinely fails to adequately promote, publicize or celebrate successes in CTE to middle and high school students or their parents;
- Families are not actively choosing CTE programs at neighborhood high schools because they are not aware of the benefits of CTE programs, which range from higher graduation rates to better success in college enrollment efforts;
- CPS has done little to stabilize CTE programs, which open and close each year across the district with little tangible planning, inadequate funding and at best haphazard support from management; in the past six years, CPS has opened 69 CTE programs and closed 37.

Chaotic Implementation

The CTE Department in CPS has been plagued by chaotic implementation for decades (*Catalyst-Chicago* Fall 1996, Fall 2003, Jan/Feb 2009, Winter 2014), at the same time that too many central office staff lack youth development and employment experience (Halpern, 2013). These chronic CPS deficiencies will serve as another serious impediment to students' fulfillment of Emanuel's new graduation requirement.

For example, teachers themselves have to find workplace learning opportunities for students because CPS' central office lacks connections to local industries and eliminated most of CPS' cooperative education (work study) teacher positions. Crain's Chicago says that employers find it difficult to work with CPS (Bertagnoli, 2016).

The mayor has the power to change this in two critical ways. First, Emanuel could insist as other mayors have that that Chicago businesses, especially those receiving city subsidies, maintain positions for youth. Cities like New York and Los Angeles have robust CTE programs, and their school districts are actively involved in workforce advisory councils. Yet locally, Cook County's workforce council focuses almost exclusively on unemployed adults and CPS does not actively participate in the council.

This is NOT the case for many of Chicago's publicly funded charter schools, or for private schools like Jesuit school Cristo Rey, which have strong internship and youth employment programs. CPS recently renewed a 10-year labor agreement with the Chicago Council of Building Trades to ensure that 30% of union apprenticeships go to CPS graduates. Yet CPS is not enforcing this agreement and refuses to provide any enrollment statistics/ This raises the concern that CPS is ignoring persistent racial inequities in both CPS CTE programs and within the larger the building trades that undermine opportunities for our overwhelmingly non-white public student population.

Financial Mismanagement

Every time CPS opens a new CTE program, the district spends millions of dollars on capital improvements and equipment purchases at the school. Yet CTU members have argued and documented for years that CPS fails to keep track of CTE equipment, and that limited resources are wasted when labs and studios are shut down in the wake of CPS’ failure to promote and support programs, which happens virtually every year. According to the CPS Inspector General, CTE equipment has disappeared from labs, been sold on E-bay, and been given away for free to charter schools because of CPS’ chronic lack of inventory controls – a state of disarray and neglect which is in violation of state and federal funding rules (OIG Report, 2016).

As an example of both the disarray and the decreased offerings within CTE, it bears noting that in the last six years, CPS has opened 69 programs and closed 37, resulting in a net loss of 28 programs:

	2012	2013	2014	2015	2016	2017
Total Programs	208	191	189	194	188	180
Total Schools	57	60	58	61	64	68

While CPS has routinely sought to disavow the role that its policies play in declining enrollment at schools that have been closed or are slated for closure, its closure of popular CTE programs has helped discourage students from attending neighborhood high schools where CTE has been reduced or eliminated. At the same time, CPS has continued over the last ten years to divert attention, energy and support away from traditional CTE programs at neighborhood high schools, a policy that has particularly negatively impacted schools in Chicago’s communities of color that struggle with low enrollment.

For example, four schools in Englewood offered ten CTE programs in 2008; by 2017, only two schools offered only two programs each. After CPS announced plans in December 2017 to close four Englewood high schools at the end of the 2018 school year, school executives suggested that the new replacement high school in Englewood could provide a STEM CTE program with internships and apprenticeships (Watson 2017). Yet it was CTE at these high schools now slated for closure that provided an impetus to enrollment in the first place – until CPS moved to cut those CTE programs; the four Englewood schools now slated for closure have taken budget hits of almost \$20 million just since 2012, negatively impacting all programming, including CTE. It bears noting that this kind of disarray is not new to Englewood’s public high schools. CPS took the same approach to the old Englewood High School, known locally as ‘the Towers’, after the school was rebranded in 1983 as Englewood Technical Preparatory Academy with a vibrant CTE program, only to be slated for closure beginning in 2005 as part of CPS’ Renaissance 2010 scheme. The building was subsequently handed over to a private charter operator – which according to the ISBE 2016-17 report card, provides no CTE today.

The demise of CTE at Englewood’s public high schools underscores the negative consequences that chaos in CPS’ CTE programming – or lack thereof – creates for students. This failure in programming and support has a negative ripple effect on venerated schools that are often the last civic institutions left standing in the wake of years of disinvestment and neglect by the City of Chicago. And the taxpayers

who support CPS are shortchanged when the funds that the district spends by opening and closing CTE programs go to waste, with few long-term benefits to show from these expenditures.

Lack of Program Promotion

CPS' two primary excuses for CTE program closure are teacher retirement – and a resulting staff shortage – and low student enrollment. Yet CTE program promotion is limited to participation at high school fairs by staff who may lack formal training in teaching or promoting the value of CTE for students, and vague and outdated program descriptions on the *Choose Your Future* website⁴. Any additional promotion – and often the only truly insightful and meaningful promotion – is left wholly to elementary and high school counselors, workers who are also swamped with other responsibilities.

CPS' new GoCPS initiative (<https://go.cps.edu/>) was purportedly developed to help elementary students pick high schools to which they could apply, yet the first year of the roll-out has offered students and parents little more than a website that links to existing school websites. No extra information has been provided to help elementary students learn about what programs exist around the city – and there is certainly no information on CTE programs that students might wish to pursue.

This lack of GoCPS support for CTE continues to leave the burden of outreach and promotion on the shoulders of elementary and high school counselors, with many lacking the time or resources to undertake this outreach effectively (Harris, 2014). Instead, marketing programs for initiatives and opportunities like CTE should be a district priority, and should include helping students and families understand the value of enrolling in CTE. Other school districts in the region take this more proactive approach. For example, the website for the Technology Center of DuPage includes student testimonial videos for each career pathway, as well as detailed descriptions of the courses and career possibilities on offer (<https://www.tcdupage.org/>)⁵.

While most of the respondents to a CTU survey reported that CPS helps them with material support to run their CTE classes, respondents specified certain areas where they need additional CPS support. Those areas of need include promotion of programs, establishment of partnerships with businesses, and provision of substitutes so teachers can attend professional development sessions and conferences. Also, teachers want CPS to work with elementary feeder schools to ensure that incoming high school students are academically prepared for their programs.

The surest path to undercutting the consequences of youth poverty – from violence to wasted human potential – is to provide our young people with a path to living wage work. The mayor and CPS should invest in more school counselors and college/career coaches. At the same time, the City should insist that Chicago employers – particularly those who do business with CPS or the City -- commit to the success of our students by recruiting CPS students to participate in CTE programs through their

⁴ The CPS *Choose Your Future* website provides prospective high school students with information on CTE, dual enrollment/dual credit and STEM programs (<https://chooseyourfuture.cps.edu/career-technical-education/>). The DuPage Area Vocational Center's website provides a good contrast for how school districts can market CTE programs to entice students and their parents by describing the courses, the pre-requisites and providing videos of student testimonials. See, for example, the Auto Body Repair and Refinishing program: <https://www.tcdupage.org/Domain/14>.

⁵ In fiscal year 2016, CPS only allocated \$131,720 to “Promote CTE program offerings through targeted marketing efforts geared toward feeder elementary schools, new high school students and the community, to increase awareness” (Chicago Public Schools, 2016).

companies. This two-pronged strategy has the potential – as it has in other cities and states – to vastly improve outcomes for residents in struggling communities, and help foster conditions in all of our neighborhoods that support the larger city as a more vibrant place to live and work.

Solution: Provide More Stability, Better Promotion of CTE

- Improve the CTE website to showcase student opportunities and successes;
- Focus on strengthening existing programs before starting new ones;
- Hire more central office staff with youth career development experience;
- Hire enough school counselors, college/career coaches and CTE instructors to ensure that students receive the support needed to navigate the high school selection process and develop solid post-secondary plans.

EMPLOYMENT BARRIERS

Problem:

- 17,000 students take CTE courses each year, yet CPS has only managed to secure job shadow and internship opportunities for a few hundred students;
- More than 5,000 vendors receive \$2.5 billion from CPS each year, yet only 59 of those companies participated in the one-day job shadow in 2016;
- Only four companies in the politically powerful Civic Committee of the Commercial Club of Chicago offered any workplace learning opportunities, even though an additional 20 companies received over \$340 million in CPS contracts.

Finding a job during high school or after graduation for many Chicago teens is exceptionally difficult, especially for students of color, according to two recently published reports (Hendricks et al, 2017; Córdova and Wilson, 2017). The unemployment rate for youth of color under the age of 25 in Chicago is conservatively estimated to be 60.2%, three times as high as the nationwide average of 20% (Kroeger et al, 2016). Only 16% of Chicago Black teens are employed, compared to 29% across the country. Chicago has the highest unemployment rate in the country for Black youth (Owens and Welton, 2016). The tools needed to lower the unemployment rate of Chicago youth of color exist, but to date, there has been a lack of will at the top echelons of CPS and the Mayor’s Office to utilize them.

Lack of employment during high school often prohibits students from pursuing or continuing post-secondary education (Sanchez, 2015), since most working class students need to work through college to pay for tuition and/or living expenses but often cannot find jobs due to their lack of work experience during high school. Too many students withdraw from college for this reason. Research also shows that college employment increases college persistence and graduation rates, at the same time that this work experience provides students with much-needed job skills to help foster post-college employment (Lucier, 2012).

These issues do not just plague youth in this city, but they are a persistent problem for Chicago’s public school students. A recent study by the Institute for Race Research and Public Policy at the University of Illinois at Chicago, *“A Tale of Three Cities,”* shows that, because of persistent segregation in Chicago, there are significant economic differences among Black, White and Latinx residents, even when controlling for educational levels. The report reveals that:

“Chicago used to be a place where Black and Latinx workers thrived, at least in comparison to the rest of the country; now the median family income levels of Black

Chicagoans are worse than their counterparts at the national level... About one of every three Black workers [in Chicago] does not currently earn a living wage, while about one of every two Latinxs does not.” (p. 58)

The CTU has supported a number of initiatives to address this growing income inequality, yet CPS buy-in and commitment has been in short supply.

To help provide a greater ground of equity for youth of color in Chicago within a group of trades that have been historically reluctant to hire Black workers, CPS signed a Project Labor Agreement with the Chicago Building Trades to ensure that 30% of the apprentices for 23 unions will come from CPS (Chicago Board of Education, 2015). The agreement states that this will be monitored regularly and that there will be outreach and communication to CTE teachers in the building trades – yet this outreach and communication simply does not happen. The Chicago Teachers Union has brought this up with CPS several times – and has never received a response.

In addition, the CTU Collective Bargaining Agreement includes a provision for CTU and CPS to “work cooperatively through co-sponsorship for the establishment of an educational manpower council or to join a similar established council... to identify workforce needs within the Chicago metropolitan area to ensure that CTE curricula and programs are aligned to those needs.” Participation in such a council will also help connect CPS to industry professionals who could be recruited to teach in CTE programs, which would help prevent frequent program closures due to teacher retirements. Despite repeated requests by the CTU to CPS for updates on the status of this endeavor, CPS has provided only one document with notes from one meeting – a meeting in which the CTU was not invited to participate.

Solution: Provide More Workplace Learning Opportunities

- Hire an additional 70 College and Career Coaches to connect students to work opportunities at schools that do not have this position;
- Enforce the Project Labor Agreement between Cook County Building Trades and CPS that mandates trade unions to actively recruit CPS graduates, with the stated goal of 30% of all apprenticeships going to CPS alumni;
- Actively participate in local and regional workforce councils to connect to more industries and recruit career changers to teach CTE in CPS;
- At the City level, require that all companies receiving subsidies or doing business with the City offer workplace learning opportunities ;
- Support the City Council Head Tax Ordinance which provides tax incentives to companies who hire from communities with high unemployment and violence.

CONCLUSION

The recommendations in this report are based on academic research and investigative reporting by respected news outlets, as well as on surveys and interviews of current and former CTE teachers, along with years of meetings with CPS CTE staff in joint committees. These recommendations must be part of any plan to improve the post-secondary outcomes of Chicago students. As a first step, CPS needs to commit to hiring more counselors and college/career coaches to support our students.

Unfunded mandates will only further punish students and staff. Regrettably, to date CPS has ignored serious issues of excessive workloads for school staff and a real and chronic lack of work opportunities for students. CPS needs significantly more than a mandate; the district needs to completely overhaul

how they prepare students for post-secondary opportunities – and we can start by working cooperatively to overhaul and improve CTE in our schools. The futures of our students depend on it.

References and Citations for Further Reading

Association for Career and Technical Education (ACTE) (2016). Career Exploration in Middle School: Setting Students on the Path to Success. Retrieved from: https://www.acteonline.org/uploadedFiles/Dump/ACTE_CC_Paper_FINAL.pdf.

Bertagnoli, L. (July 29, 2016). Why aren't more Chicago businesses adopting schools? Crain's Chicago Business. Retrieved from: <http://www.chicagobusiness.com/article/20160729/ISSUE01/307309999/why-arent-more-chicago-businesses-adopting-schools>

Brand, B., Valent, A. & Browning, A. (2013). How Career and Technical Education Can Help Students Be College and Career Ready: A Primer. Washington, DC: American Institute for Research, College & Career Readiness & Success Center. Retrieved from: <http://www.ccrscenter.org/products-resources/how-career-and-technical-education-can-help-students-be-college-and-career-ready>

Bruno, R. & Manzo, F. (2016). The Impact of Apprenticeship Programs in Illinois: An Analysis of Economic and Social Effects. Chicago: University of Illinois at Urbana-Champaign, School of Labor and Employment Relations, Labor Education Program. Retrieved from: https://ler.illinois.edu/wp-content/uploads/2015/12/PCMR-ILEPI-ImpactofApprenticeshipPrograms_NewCover.pdf

Catalyst-Chicago (Winter 2014). Career Change. *Catalyst In-Depth*. Retrieved from: <http://3ix98v4jkk22r5onw14w6xx1.wpengine.netdna-cdn.com/wp-content/uploads/assets/20140206/catalystindepth-winter2014f.pdf>

Catalyst-Chicago (Jan/Feb 2009). Help Wanted. *Catalyst In-Depth* (Vol. XX Number 3). Retrieved from: <http://3ix98v4jkk22r5onw14w6xx1.wpengine.netdna-cdn.com/wp-content/uploads/assets/20090202/catalystjanfeb09.pdf>

Catalyst-Chicago (Fall 2003). Remodeling Career Education. *Catalyst In-Depth* (Vol. XV Number 2). Retrieved from: <http://3ix98v4jkk22r5onw14w6xx1.wpengine.netdna-cdn.com/wp-content/uploads/assets/20031001/1003finalpdf.pdf>

Catalyst-Chicago (Fall 1996). School-to-Work. *Catalyst* (Vol. VII Number 3). Retrieved from: <http://3ix98v4jkk22r5onw14w6xx1.wpengine.netdna-cdn.com/wp-content/uploads/assets/19961101/8catnov1996.pdf>

Chicago Board of Education, Office of Inspector General (OIG) (December 2016). Annual Report, Fiscal Year 2016. Retrieved from: http://cpsoig.org/uploads/3/5/5/6/35562484/fy_2016_annual_report.pdf.

Chicago Board of Education (July 2015). Supplemental Agreement to the Project Labor Agreement Regarding Student Programs and Apprenticeships. Retrieved from: http://cps.edu/sitecollectiondocuments/Multi_ProjectLaborSupplementalAgreement2015_2025.pdf

Chicago Public Schools (May 2017). Success Starts Here: Three-Year Vision, 2016-2019. Retrieved from: <http://www.cps.edu/sitecollectiondocuments/cpsvision.pdf>

Chicago Public Schools (2012). When I Grow Up, I Want to Be...Sparks gives CPS students a chance to experience the benefits of a career. Retrieved from: <http://cps.edu/Spotlight/Pages/Spotlight321.aspx>.

Chicago Public Schools (2011). CPS Career and Technical Education School-Based Leadership Guide: Promoting High Performing CTE Programs & Academies. Retrieved from: <https://chooseyourfuture.cps.edu/wp-content/uploads/2015/02/cte-guide-all-inclusive-version-2011-10-19.pdf>

Chicago Public Schools (December 2010). Building a System of College & Career Academies in Chicago Public Schools (CPS) – The Chicago CTE Story [PowerPoint Slides]. Retrieved from: <http://www.chooseyourfuture.org/sites/default/files/acte-2010-building-a-system-college-and-career-academies-2010dec.pptx>

Chicago Public Schools (2008). CTE Reinvention Strategy Timeline [PowerPoint slides]. Presented to the PAVE Committee of the Chicago Teachers Union.

Córdova, T.L. & Wilson, M.D. (2017). Abandoned in their Neighborhoods: Youth Joblessness amidst the Flight of Industry and Opportunity. Chicago: University of Illinois at Chicago, Great Cities Institute. Retrieved from: <https://greatcities.uic.edu/wp-content/uploads/2017/01/Abandoned-in-their-Neighborhoods.pdf>

DeCoursey, J. & Skyles, A. (2007). Making Connections: Engaging Employers in Preparing Chicago's Youth for the Workforce. Chicago: Chapin Hall Center for Children at the University of Chicago. Retrieved from: http://www.chapinhall.org/sites/default/files/old_reports/341.pdf

Dougherty, S. M. (2016). Career and Technical Education in High School: Does it Improve Student Outcomes? Washington, DC: Thomas Fordham Institute. Retrieved from: <http://files.eric.ed.gov/fulltext/ED570132.pdf>

Halpern, R. & Weigensberg, B. (2013). A Study of Career and Technical Education Reform in the Chicago Public Schools. Chicago: Erikson Institute, under contract with the Chapin Hall Center for Children.

Harris, Rebecca (2014). A new end game. *Catalyst In Depth* Winter 2014. Retrieved from: <http://chicagoreporter.com/new-end-game/>

Hendricks, K., Lewis, A.E., Arenas, I. & Lewis, D.G. (2017). A Tale of Three Cities: The State of Racial Justice in Chicago Report. University of Illinois at Chicago, Institute for Research on Race & Public Policy. Retrieved from: <http://stateofracialjusticechicago.com/>

Illinois Federation of Teachers (IFT) (2016). "Resolution No. 9: Exploratory Career and Technical Education Courses to be Introduced in the Middle School Grades and to Restore and Expand CTE in High Schools," Submitted by Chicago Teachers Union, Local 1. Retrieved from: <https://www.ift-aft.org/your-union/resolutions-constitution/2016-ift-resolutions/lists/2016-resolutions/resolution-no-9-exploratory-career-and-technical-education-courses-to-be-introduced-in-the-middle-school-grades-and-to-restore-and-expand-cte-in-high-schools>

Illinois State Board of Education (ISBE), Educator Employment Information, School Year 2016. Retrieved from: <https://www.isbe.net/layouts/Download.aspx?SourceUrl=/Documents/EIS%20Public%20Dataset>

[%202016.xlsx](#) and ISBE Student Fall Enrollment Counts, School Year 2016. Retrieved from: https://www.isbe.net/_layouts/Download.aspx?SourceUrl=/Documents/school_sum16.xls

Kroeger, T., Cooke, T. and Gould, E. (2016). The Class of 2016: the labor market is still far from ideal for young graduates. *Economic Policy Institute*. Retrieved from: <http://www.epi.org/publication/class-of-2016/#epi-toc-5>

Lucier, K. L. (2012). Consider Pros and Cons of Working in College. *U.S. News and World Report*. Retrieved from: <https://www.usnews.com/education/best-colleges/articles/2012/09/13/consider-pros-and-cons-of-working-in-college>.

Owens, D. R. and Welton, A. D. (2016). The Chicago Landscape of Career and Technical Education. *On Research and Leadership*, Oct. 2016, Vol. 2, No. 1. Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign. Retrieved from: <http://occrillinois.edu/CTEApprenticeships/chicago>

Ross, J. (2014). African-Americans with College Degrees Are Twice as Likely to Be Unemployed as Other Graduates. *The Atlantic*. Retrieved from: <https://www.theatlantic.com/politics/archive/2014/05/african-americans-with-college-degrees-are-twice-as-likely-to-be-unemployed-as-other-graduates/430971/>

Sanchez, M. (Winter 2015). Easing barriers to college completion. *Catalyst-Chicago: Catalyst In-Depth* (Vol. XXVI Number 2). Retrieved from: <http://chicagoreporter.com/easing-barriers-to-college-completion/>

Stone, J.R. & Lewis, M.V. (2012). *College and Career Ready in the 21st Century: Making High School Matter*. New York City: Teachers College Press.

Symonds, W.C., Schwartz, R.B., & Ferguson, R. (2011). *Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century*. Boston: Harvard Graduate School of Education, Pathways to Prosperity Project. Retrieved from: http://www.gse.harvard.edu/sites/default/files/documents/Pathways_to_Prosperty_Feb2011-1.pdf

The White House (2014). *Ready to Work: Job-Driven Training and American Opportunity*. Washington, DC. Retrieved from: https://obamawhitehouse.archives.gov/sites/default/files/docs/skills_report.pdf

Wastson, Andrea (April 20, 2017). New Englewood High School Should Combine 4 Schools Into Robeson: CPS Group. *DNAinfo Chicago*. Retrieved from: <https://www.dnainfo.com/chicago/20170420/englewood/new-englewood-high-school-robeson-cps-chicago-publ-schools-harper-hope-team>