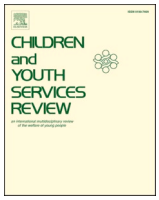
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Co-producing service experiences for transition-age youth in foster care: Exploring the connection between transitional independent living plan development and independent living service usage

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ABSTRACT

In the U.S. foster care system caseworkers are charged with preparing older adolescents unlikely to be reunified with their families or be adopted for independent adulthood. An important tool is the transitional independent living plan (TILP), which involves collaboratively engaging transition-age youth in planning for their future, identifying goals, and determining service needs. The TILP guides which Independent Living Services (ILS) the youth may receive. Depending on the youth's goals and needs, ILS may include training and support in education, career, parenting, and other areas. Past research on this topic has focused on the availability and effectiveness of ILS and TILP planning. Less is known about whether the frequency of TILP engagement is associated with ILS use. Using administrative data and representative longitudinal survey data, we examine the relationship between TILP development and ILS utilization patterns among older youth in California foster care. Our results show that youth developed less than one TILP per year, used about one ILS monthly, and used four different types of ILS while in care. Our regression results demonstrate that youth with more TILP engagement were expected to use more ILS and a broader range of ILS. Our results also highlight associations between the county's administrative contexts and the youths' ILS utilization patterns. Our study offers rare empirical evidence that underscores the importance of regularly co-producing future plans with youth, training caseworkers to work collaboratively with youth in decisions about their lives, and reducing between-county variation in TILP and ILS practices.

1. Introduction

When children and youth are placed in foster care, the government temporarily assumes parental responsibility, which has been referred to as corporate parenting (Bullock et al., 2006; Courtney, 2009). The primary aims are to keep the child safe and establish a legally-permanent parenting relationship, preferentially by reunifying the child with their family. Adoption or legal guardianship are secondary forms of permanency if family reunification is not in the best interest of the child. However, for transition-age youth in foster care (TAY) who do not achieve permanency, the state takes on an additional role of preparing youth for adulthood when they leave foster care. Here, caseworkers' roles become instrumental in preparing them for independent living and establishing long-lasting interdependent relationships (Okpych, Park, Powers, Harty, & Courtney, 2023). This may include supporting youth in the areas of education, employment, relationship skills, safe and stable housing, and day-to-day life skills, among others.

Two important mechanisms designed to support this process include Transitional Independent Living Plans (TILP) and Independent Living Services (ILS). In the United States, multiple federal laws mandate caseworkers to collaboratively engage TAY in identifying individual goals and developing service plans to support their autonomy and self-determination in preparation for their transition to adulthood (Park, Powers, Okpych, & Courtney, 2020). ILS provide resources and training to TAY to prepare them to transition to adulthood, typically provided by child welfare departments or contracted nonprofit organizations. The

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federal government names 13 ILS domains: secondary education support, postsecondary education support, career preparation, employment programs or vocational training, budget and financial management, housing education and home management, planned supervised independent living, health education, risk prevention, mentoring, room and board financial assistance, financial assistance for education and educational support, and other financial assistance (Government Accountability Office, 2004, p. 35). In this framework, TILP are central drivers, not supplementary, steering the direction and objectives of ILS to ensure they are tailored to each TAY's unique needs and aspirations.

Despite the close connection between TILP and ILS, there were limited studies on their relationships – a critical omission considering they are essential interventions supporting TAY's adulthood transition. We examine whether TAY's TILP development is associated with TAY's ILS utilization, leveraging California child welfare administrative data and data collected from a representative longitudinal study of TAY in California.

2. Literature review

2.1. Corporate parenting and state challenges in preparing youth for adulthood

Foster care represents a critical and often complex intervention wherein the government assumes custody of children who are at risk of maltreatment, who have experienced maltreatment, or whose caregivers are unable to provide care (e.g., parental death, severe behavioral health issues, etc.). Corporate parenting is a useful concept to understand how the state should assume legal responsibility for a child's wellbeing in the child welfare system (Bullock et al., 2006). When legal permanency (i.e., reunification, adoption, or legal guardianship) is unattainable, the state's role as a corporate parent for TAY becomes crucial. Corporate parenting for TAY is a multifaceted concept. It entails the state assuming the responsibilities traditionally held by parents, ensuring these young individuals are prepared for adulthood. These responsibilities include providing stable and nurturing environments, facilitating educational and vocational opportunities, and ensuring access to health and mental health services (Bullock et al., 2006). The state delegates specific tasks to caseworkers, who become the primary agents overseeing the care, such as ensuring youth's needs are met and planning/linking youth to programs/resources. Caseworkers, thus, play a pivotal role in guiding and supporting TAY as they navigate the challenges of transitioning to independent adulthood (Courtney, 2009).

Compared to peers, youth with foster care system involvement often transition into adulthood with greater need but less support (Fryar et al., 2017; Courtney et al., 2018). As a result, TAY faces numerous barriers to achieving social and economic stability, such as completing secondary and postsecondary education, remaining employed, and earning a livable wage (Courtney et al., 2011; Rosenberg & Kim, 2018). This situation is further complicated by the inherent challenges in the state's approach to preparing these youth for adulthood, which often falls short in addressing this vulnerable group's unique complexities and needs. Preparing older children for adulthood is a complex and challenging task for the state, one that many have struggled to fulfill adequately. The difficulty arises from the state's remote position from the youth in care, leading to challenges in effectively guiding their transition to adulthood. Voices from youth, parents, and advocates for greater resources and rights have compelled states and the federal government to take a more active role in preparing older foster youth for adulthood, which led to the development and implementation of policies and programs aimed not only at holding states accountable as corporate parents but also providing practical guidance for preparing youth for adulthood (Bullock et al., 2006; Courtney, 2009). These initiatives include extensive litigation and consent decrees that have shaped the current policy landscape, emphasizing the importance of structured support and planning for the future of TAY.

Acknowledging the state's challenges in corporate parenting, we view the Transitional Independent Living Plan (TILP) and Independent Living Services (ILS) as two important tools that can help states to fulfill the charge of corporate parenting. As Courtney (2009) wrote, "If the state as corporate parent ought to act in ways that are consistent with the ways 'good' parents act towards their children, then public policy directed towards assisting foster youth making the transition to adulthood should take into account the kinds of support that young people generally can count on during this period of life" (p.8). The TILP, in particular, offers a structured and strategic approach, covering essential areas such as education, employment, housing, and health care, all tailored to the unique circumstances of each youth (Courtney, 2009; Park et al., 2020). This personalized approach is pivotal in the state's role as a corporate parent, providing a comprehensive framework for caseworkers to prepare TAY for the challenges of life outside the foster care system (Bullock et al., 2006). In essence, corporate parenting for TAY is about the state stepping in to fill the parental void left after the state has separated a child from their parental figures. Through strategies like TILP and ILS, the state seeks to ensure these youth are safe, cared for, and equipped with the skills and resources needed to thrive as adults (Bullock et al., 2006).

2.2. Federal policy contexts of TILP and ILS

Germinal research in the 1980s (Barth, 1990; Festinger, 1983) brought light to how challenging the transition to adulthood was for TAY with a near-total lack of material support and services in place to help youth prepare for this transition. To address challenges of troubling outcomes among TAY, enhance the state's role in the corporate parenting of TAY, and better prepare TAY for independent adulthood, a series of federal laws in the 1980 s and 1990 s funded ILS and mandated TILP. Later, a more robust set of policies expanded ILS funding and TILP requirements around engaging TAY in the planning. We now summarize the key pieces of federal legislation that shaped ILS and TILPs. For a more detailed account, see (Park et al., 2020).

In 1986, amendments to Title IV-E of the Social Security Act established Independent Living Services (ILS) to enhance self-sufficiency among transition-age youth, with $45 million in federal funds allocated to states, D.C., Puerto Rico, and Native American Tribes based on their foster care census (Administration for Children and Families, 1987). These funds could be used to support services like education preparation, career training, and health activities (Cook et al., 1991). Additionally, states were tasked with creating a TILP for each eligible child over 16, without detailed guidelines on TAY participation (Administration for Children and Families, 1987). By 1993, funding for ILS increased to $70 million annually (P.L. 103–66, 1993). The Foster Care Independence Act (FCIA) (1999) raised ILS funding to $140 million (Okpych, 2015) and explicitly required TAY participation in TILP (Allen & Nixon, 2000). States could use up to 30 % of their ILS funds on costs associated with room and board (e.g., security deposits, first month rent, apartment expenses). The FCIA granted states and tribal agencies flexibility in administering ILS, which led to varied program implementation (Government Accountability Office, 2004). These legislative changes significantly shaped the provision and scope of services available to foster youth transitioning to adulthood.

Subsequent amendments expanded ILS and refined TILP processes significantly. In 2002, the FCIA was amended to introduce the Education and Training Voucher (ETV), providing up to $5,000 per year per youth to help cover the costs of postsecondary education and training expenses (e.g., tuition, books, supplies, transportation) (Fernandes-Alcantara, 2021). The Fostering Connections to Success and Increasing Adoptions Act of 2008 allowed states to extend foster care from age 18 to 21 and broadened ILS and ETV eligibility to TAY who exited foster care after age 16 to adoption or kinship guardianship (Okpych, 2015). The Preventing Sex Trafficking and Strengthening Families Act of 2014 empowered TAY by involving them more directly in their case plan development from age

14 and enhanced collaborative engagement (Park et al., 2020; Preventing Sex Trafficking and Strengthening Families Act, 2014). The Family First Prevention Services Act of 2018 further broadened access to ILS, redefining it to include developmentally appropriate activities similar to those experienced by peers in intact families and reducing the age limit for ILS from 16 to 14 (P.L. 115–123, 2018, p. 265).

The historical development of federal policies on ILS and TILP suggests an intentionally interdependent design. The TILP development process helps identify TAY's transition goals, assess their current circumstances, and develops a plan to connect them with useful services and training. Using the co-produced TILP, caseworkers connect TAY to relevant and available ILS services to prepare and support their transition to adulthood (Park et al., 2020, 2021). Policies guiding TILP and ILS serve as essential mechanisms through which the state, in its role as a corporate parent, fulfills its responsibility to prepare TAY for their transition to adulthood. In principle, by implementing TILP and ILS, the state aims to ensure that each youth in foster care receives personalized support aligned with their individual needs and goals. This approach is crucial for enabling TAY to overcome their unique challenges and achieve stability in various aspects of life, including education, employment, finances, and daily living and relationship skills (Bullock et al., 2006; Courtney, 2009).

2.3. Policy and administrative contexts in California

In examining the relationship between TILP and ILS, California's extended foster care program and decentralized child welfare system provide unique contexts for our analyses, as they offer insights into how extended support and localized program variations impact transition-age youth in foster care. California is one of dozens of states that allow TAY to remain in care after their 18th birthday under the Fostering Connections (Child Welfare Information Gateway, 2022). Effective January 1, 2012, TAY can stay in Extended Foster Care (EFC) until their 21st birthday and access financial support (e.g., housing subsidy) and ILS (Mosley & Courtney, 2012). In other words, TAYs staying in California EFC could periodically revisit their TILP in collaboration with caseworkers and other supporting individuals and have continued access to ILS until 21. Studies found significant positive relationships between TAY's time in EFC and several outcomes at ages 19, 21, and 23, including secondary education completion, postsecondary education access, reduced likelihoods of homelessness and criminal justice involvement, and decreased reliance on public aid, to name a few (Courtney & Okpych, 2017; Courtney et al., 2018, 2021).

California has a decentralized state-supervised and county-administered child welfare system—a governance approach with the belief that local governments can offer more responsive services than central and higher-level governments (Hutchcroft, 2001; Mosley & Courtney, 2012; Park et al., 2022). Previous studies suggest that decentralized child welfare systems can address local issues flexibly and responsively (Elgin & Carter, 2019; Hutchcroft, 2001). However, the counties' context and administrative capacity differences may limit the decentralized system's effectiveness. California's decentralized child welfare system produces varying TILP practices and ILS availability across the state. For instance, the California Department of Social Services defined the TILP as a written plan collaboratively developed between a TAY and their caseworker and updated every six months that includes "(1) goals identified by the youth, (2) any supportive activities necessary to ensure that the youth reaches his/her goals, (3) who is responsible to perform the supportive activities, (4) a target completion date for achieving the goals, and (5) progress toward reaching the goals" (California Department of Social Services, 2008, pp. 2–3). However, beyond these descriptions, the ways in which TILP is initiated (e.g., at what age TAY will develop an initial TILP[1]) and implemented (e.g., how TILP informs TAY's use of supportive activities or ILS) are primarily left to the counties' discretion.

The circumstance is similar for ILS; the administrative authority is primarily left to the county child welfare departments. The California Department of Social Services requires counties to submit annual summary reports on how ILS are administered, which inform the California's Title IV-E Annual Progress and Services Report, a requirement to receive federal funding for ILS provision (California Department of Social Services, 2000). However, county child welfare departments' practices vary in many areas. For instance, some counties provide ILS up to age 23, beyond the standard age limit of 21. While most counties provide ILS relevant to education, employment, financial education, and independent living skills, some counties offer a broader range of services (e.g., behavioral health disorder prevention and parenting skill training). Some counties internally hire specialized staff to oversee the coordination of ILS, while others contract the coordination to private nonprofit organizations (California Department of Social Services, 2023). It is important to note that participation in ILS is voluntary for youth (California Department of Social Services, 2008, P. 3).

2.4. Review of research on TILP development and ILS utilization

A recent literature review showed that only a few studies have examined the nature and factors related to youth participation in TILP, mainly using qualitative methods and small and purposive samples (Delgado et al., 2022). For instance, qualitative studies suggest that TAY of color, TAY from lower economic backgrounds, and TAY who had disempowering experiences with their caseworkers were less likely to participate in TILP development (Abrams et al., 2017; Havlicek & Samuels, 2018; McCoy et al., 2008; Nybell, 2013; Pryce et al., 2017). Emerging quantitative research in this area finds that TAY experience varying levels of involvement in their TILP development. For instance, a significant percentage of TAYs in California do not participate in the TILP process (32 % at age 17 and 14 % at age 19) (Park et al., 2020, 2021). The studies also find various TAY-level characteristics, TAYs' relationships with caseworkers, and some county-level attributes (e.g., degree of caseworker specialization) influence TAYs' engagement in TILP development (Park et al., 2020, 2021). In terms of the impacts of TILP, existing research has primarily explored the subsidiary effects of TILP development. Studies suggest TAYs' participation in the TILP process can provide psychological benefits (e.g., sense of control and autonomy, positive self-concept, improved self-esteem), tangible benefits (e.g., knowledge, skills), relational benefits (e.g., increased trust of caseworkers, social networks formed through ILP utilization), and can motivate future help-seeking in TAY (Abrams et al., 2017; Havlicek & Samuels, 2018; McCoy et al., 2008; Nybell, 2013; Pryce et al., 2017).

Compared to TILP, ILS received much greater scholarly attention, largely focused on TAYs' experience with ILS, factors associated with TAYs' ILS utilization, and the effectiveness of services and programs (Liu et al., 2019; Montgomery et al., 2006). There are many potential reasons that ILS receive greater research attention than TILP. TILP is a tool used in child welfare practice that can target a range of disparate outcomes that can vary from youth to youth and are idiosyncratic to a TAY's needs and circumstances. Moreover, there may be little time or resources within child welfare departments to evaluate TILP, and researchers may experience difficulty accessing the TILP process due to privacy issues (Richardson & Yates, 2019). In contrast, ILS tend to be offered by private agencies contracted by child welfare departments, are offered as stand-alone programs, and provide services targeting specific TAY skills and outcomes (Richardson & Yates, 2019). These aspects make it easier to measure ILS outcomes and to evaluate ILS within a program evaluation

[1] California Department of Social Services (2008) allows county child welfare departments to develop TILP starting at age 14.

framework. Not surprisingly, much of the research on ILS involves collaborations between programs offering ILS and researchers (e.g., Courtney et al., 2019; Salazar et al., 2023). Moreover, states are required to track and report TAYs' ILS utilization in six-month periods for funding and federal reporting purposes through the National Youth in Transition Database (California Department of Social Services, 2000).

Studies show that TAY are generally satisfied with the ILS they receive, although adequacy and sufficiency of services and training may vary based on individual experience and circumstances (Freundlich et al., 2007; Petr, 2008; Courtney et al., 2014). Multiple studies report discrepancies in ILS utilization based on TAYs' gender and racial/ethnic identities and the availability of ILS (Collins & Ward, 2011; Courtney et al., 2001). For instance, a study that used the National Youth in Transition Database (NYTD) showed male and Black TAY were less likely to receive most ILS than females and TAYs with other racial/ethnic identities (Okpych, 2015). The same study also demonstrated significant variation in TAYs' ILS utilization between states and urbanicity (i.e., TAY who lived in large urban areas received fewer services than TAY who lived in rural, suburban, and urban areas). Despite the significant public investments, mixed evidence exists on the effectiveness of ILS in preparing TAY for adulthood transition (Doucet et al., 2022; Greeson et al., 2020; Häggman-Laitila et al., 2018; Montgomery et al., 2006). A multi-site evaluation of promising ILS (i.e., employment service, outreach, tutoring, and life skills programs) found positive impacts on only a few outcomes that were evaluated (U.S. Department of Health & Human Services, 2013). Another randomized control trial study also found that ILS usage did not impact many outcomes (Karoly, 2020). Most of the recent studies examine the utilization of ILS using NYTD data and find mixed results about the potential of ILS to improve TAYs' various outcomes, including employment, education, housing stability, and criminal justice involvement (Geiger & Okpych, 2022; Huang et al., 2022; Kim et al., 2019; Liu, 2020). It should be noted that NYTD data have substantial limitations when evaluating the impact of ILS (Okpych, 2015). While limited evidence exists, a combination of ILS is believed to be more effective in preparing TAY with comprehensive skill sets (Cook et al., 1991; Häggman-Laitila et al., 2018).

Despite the growing research interest in TILP and ILS, there are at least four significant gaps in the literature and empirical evidence. First, we are aware of no research on the relationship between TILP participation and ILS utilization. Considering the intended policy design between TILP and ILS, the lack of empirical evidence about the relationships between the two is a critical gap in the literature. Second, previous studies on ILS utilization neglect the influences of environmental and contextual factors. Federal policies leave the administration of TILP and ILS to individual states, and some states' decentralized administrative systems moved administrative jurisdictions to individual counties (Park, Okpych, Harty, & Courtney, 2022; Smith, 2002). Consequently, county contexts and decisions made by local administrative groups could influence TAYs' ILS utilization patterns (Elgin & Carter, 2019; Hutchcroft, 2001). Third, studies examine TILP development or ILS utilization use qualitative methods and purposive sampling which limits generalizability. Few existing studies leverage data collected from representative samples and standardized measures, which would strengthen the generalizability of the results. Fourth, there is a notable lack of longitudinal studies tracking the long-term usage and effects of TILP and ILS. This research is essential for understanding potential long-term impacts and guiding future policy and program improvements. The current study addresses these gaps by investigating the association between youths' TILP development and ILS utilization, incorporating variables that capture county-level attributes and utilizing data sources with representative samples and longitudinal data.

3. Methods

3.1. Data

We use multiple data sources from the California Youth Transitions to Adulthood Study (CalYOUTH), a longitudinal study of California's extended foster care (EFC) policy and youths' experience in EFC (Courtney, Charles, Okpych, Napolitano, & Halsted, 2014). First, we used the California child welfare administrative records to capture youths' basic demographic characteristics, foster care and maltreatment histories, and TILP and ILS records. Second, we leverage the data from longitudinal youth surveys conducted by CalYOUTH to understand TAYs' experience in EFC. The youth surveys captured TAY-level information that was not available in the state administrative data system. Beginning in 2013, four waves of interviews were conducted every two years. In December 2012, CalYOUTH identified about 2,500 TAYs from 51 California counties who were between 16.75 and 17.75 years old and who had been in California foster care for at least six months. A stratified random sample of 880 TAYs in 51 counties was drawn to maximize the number of counties represented in the study. During the field period, 117 TAYs were identified as ineligible (e.g., ran away for at least two months, incarcerated), leaving 763 TAYs eligible for the study. This manuscript uses data from the baseline survey conducted in 2013 when the participants were 17 years old (n = 727; response rate [RR] = 95 %) and data from the follow-up survey conducted in 2015 when participants were 19 (n = 611, follow-up RR = 84 %) (for additional information about the youth survey administration processes see Courtney et al., 2016; Courtney et al., 2014).

Third, we use caseworker survey data collected by CalYOUTH. The child welfare worker surveys provide important information on the county contexts that are not available in our other data sources (e.g., availability of support services and degrees of caseworker specialization). The first CalYOUTH caseworker survey was conducted in 2013 with a representative sample of California child welfare workers who supervised at least one TAY (n = 235; RR = 89 %). The second caseworker survey was conducted in 2015 with caseworkers supervising at least one TAY participating in CalYOUTH's longitudinal study and who was in care on June 1, 2015 (n = 295; RR = 96 %) (see Courtney et al., 2016, 2015 for additional information about the caseworker survey administration processes).

Lastly, various publicly available data are used to capture county-level contexts, including American Community Survey data to estimate the county-level unemployment rate and California Secretary of State's voter registration data to measure the political atmosphere.

3.2. Sample

Our study has two samples. First, the administrative sample includes youth who were under the supervision of a county child welfare agency, who had been in care for more than 180 days, who were between 16.75 and 17.75 in December 2012, and who had TILP and ILS records (n = 2,464). Second, the youth survey sample includes a subset of the 2,464 youth who satisfied the above criteria and who participated in the longitudinal youth survey (n = 694). The administrative sample provides a larger sample size with greater statistical power, whereas the youth survey sample provides richer information on TAY characteristics collected from the surveys.

In our regression analyses, we restricted the samples to TAY who stayed in care for the entire two years between ages 17 and 19 and between ages 19 and 21 to control for bias that may arise from spending different amounts of time in foster care. Our approach ensures TAY spent exactly the same amount of time in foster care when evaluating their participation in TILP and ILS utilization. Thus, the final administrative data samples include 1,246 TAYs who stayed in care between 17 and 19 and 842 TAYs who stayed in care between 19 and 21. The final youth survey samples include 415 TAYs who stayed in care between 17 and 19

and 290 TAYs who stayed in care between 19 and 21.

3.3. Variables

3.3.1. ILS utilization

The first outcome variable measures the number of ILS a TAY received per month in foster care. We estimate these outcomes for two periods to match the youth survey periods: between ages 17–19 and 19–21. California's child welfare administrative data captured the administrative records of 132,877 ILS that the administrative sample TAYs used between 17 and 21. The ILS are categorized into 24 types. Upon close review of categories and in consultation with state employees with expertise in the data system, we dropped 29,913 ILS records (22.5 % of the total records) either because the ILS type had an ambiguous description (e.g., "other financial assistance," etc.) or because the service did not directly support TAYs' independent living (e.g., needs assessment, transportation, etc.). We calculated the number of ILS a TAY received per month by dividing the total number of ILS received during each two-year period by 24. This resulted in a measure of the number of ILS received per month during the periods between a TAY's 17th and 19th birthdays and between their 19th and 21st birthdays.

The second outcome variable measures the range of ILS received: the number of different types of ILS a TAY received within each two-year period. Previous studies suggest that TAY who received multiple types of ILS tended to be better prepared for adulthood transition (Cook et al., 1991; Häggman-Laitila et al., 2018). To measure the range of ILS received, we categorized the remaining 19 ILS types into six domains: (1) employment training/job guidance (i.e., career/job guidance and employment/vocational training), (2) independent living (i.e., consumer skills, home management, time management, money management, credit results reviewed with youth and discuss/participate credit council), (3) housing (i.e., room & board financial assistance, transitional housing, and housing options/locations/Transitional Housing Placements), (4) social/interpersonal skills (i.e., interpersonal/social skills, parenting skills, and mentoring), (5) education (i.e., education, education financial assistance, and postsecondary education), and (6) health care. We then calculated how many domains of ILS each TAY received between ages 17 and 19 and between ages 19 and 21 (range: 0–6).

3.3.2. TILP development

The main explanatory variable in our regression models is the number of TILP a TAY developed with their caseworker in the twelve months preceding each ILS utilization period. This measure was created from California child welfare administrative data. To assist with establishing temporal ordering between the independent variable and dependent variables, we calculated the number of TILP a TAY developed during the 12 months before the period in which their ILS usage was measured. For instance, in the models predicting a TAY's ILS utilization between ages 17 and 19, we used the number of TILP developed between the TAY's 16th and 17th birthdays. Likewise, in the models predicting a TAY's ILS utilization between ages 19 and 21, we used the number of TILP developed between the TAY's 18th and 19th birthdays.

3.3.3. Youth-level predictors

Prior research identified a range of TAY-level attributes associated with their care experience, TILP development, and ILS utilization (Häggman-Laitila et al., 2018; Montgomery et al., 2006; Okpych, 2015; Park et al., 2020, 2021). For the analysis using the administrative sample, we include TAYs' demographic characteristics (i.e., gender, race/ethnicity), foster care history (age they first entered foster care, number of placement changes per year in care before 18, ever placed in kinship care, ever placed in congregated care, ever been in probation-supervised foster care), and number of screened-in reports (i.e., substantiated, inconclusive, or unfounded) for maltreatment allegations (i.e., sexual abuse, physical abuse, severe/general neglect, emotional abuse, caretaker absence/incapacity) before entering the care.

In our analyses of the longitudinal youth survey data, we used the foster care history and maltreatment allegation records from the administrative data (described above) as well as other TAY attributes from the age-17 survey data. For youth's demographic characteristics, we captured TAYs' gender (0 = female, 1 = male), age at the time of the baseline survey, race/ethnicity (i.e., White, Black, Hispanic, multiracial/ethnic, and other[2]), sexual preference (0 = 100 % heterosexual, 1 = not 100 % heterosexual), and whether English is their primary language. Informed by previous studies (Park et al., 2020, 2021, 2022), we measured various risk and protective factors of youth relevant to ILS usage from the youth survey data, including level of optimism about the future (1 = not at all optimistic, 4 = very optimistic), number of individuals the TAY could turn to if they needed tangible support (e.g., shelter, food; range: 0–3), number of individuals the TAY could turn to if they needed guidance or advice (range: 0–3), high school diploma/GED completion status, ever employed, screened positive for a mental health disorder (i.e., depression, bipolar disorder, panic disorder, social phobia, generalized anxiety disorder, obsessive–compulsive disorder, PTSD and antisocial personality disorder), screened positive for a substance use disorder (i.e., substance abuse, substance dependence, alcohol abuse or alcohol dependence), being a parent, whether youth experienced physical assault in the past 12 months prior to the survey, and average frequency of engagement in delinquent behaviors in the past 12 months (e.g., damaged property; 0 = never, 3 = five or more times; Cronbach's alpha = 0.82 for the first youth survey and 0.79 for the second youth survey).

3.3.4. County-level predictors

Previous studies have demonstrated the influences of county-level administrative and contextual conditions on TAYs' EFC stay and care experiences (Elgin & Carter, 2019; Park et al., 2022). To capture county's urbanicity, we categorized counties into four groups based on the population size and density, including rural/mostly rural,[3] urban,[4] large urban,[5] and Los Angeles County. Using caseworker survey data, we measured two important variables describing practice contexts for the county responsible for the TAY's care: quality of inter-system collaboration and worker specialization. The caseworker survey asked respondents to rate the quality of their county child welfare department's collaboration with seven service systems (i.e., secondary education, postsecondary education, housing stability, employment, health, mental health, and substance use disorder; 0 = completely dissatisfied, 4 = completely satisfied). We first calculated the average score across seven domains for each caseworker in a county (Cronbach's alpha = 0.85 for the first caseworker survey and 0.84 for the second caseworker survey), and then took the average score of caseworkers in a county. This yielded a county-level average collaboration score for each county. To measure the degree of caseworker specialization, we first identified the caseworker survey respondents who only worked in specialized services for older youth (i.e., ILS, identified as an EFC worker) and calculated the percentages of TAY-specialized caseworkers in each county.

Finally, we used two publicly available data sources to estimate the labor market condition and political atmosphere in the county

[2] Includes Asian, Pacific Islander, American Indian, and Alaskan Native.

[3] Rural/Mostly rural counties include Calaveras, Del Norte, El Dorado, Glenn, Humboldt, Imperial, Inyo, Lassen, Mendocino, Nevada, Plumas, San Benito, San Luis Obispo, Tehama, Trinity, and Yuba.

[4] Urban counties include Butte, Contra Costa, Kings, Madera, Marin, Merced, Monterey, Napa, Placer, San Bernardino, San Mateo, Santa Barbara, Santa Cruz, Shasta, Solano, Sonoma, Tulare, Ventura, and Yolo.

[5] Large urban counties include Alameda, Fresno, Kern, Orange, Riverside, Sacramento, San Diego, San Francisco, San Joaquin, Santa Clara, and Stanislaus.

responsible for each TAY's care. We measured the county's unemployment rates among residents aged between 16 and 24 using the American Community Survey's estimates for 2013 and 2015. Finally, we used the California Secretary of State's voter registration records to calculate the percentage of registered voters identified as Republican in 2013 and 2015 as proxies of the county's political atmosphere. Previous studies found that youth placed in the counties with higher percentages of Republican voters spent less time in EFC (Park et al., 2020), signaling that more conservative counties may strive for smaller role of the government and may also be more stringent with offering ILS and other supports.

3.4. Analytic approaches

To answer our research questions, we ran regression analyses to examine the relationships between a TAY's TILP development and their ILS utilization after controlling for the youth-level characteristics and county contexts described above. Guided by the statistical distribution of outcome variables, we used Poisson regression to predict the number of ILS used monthly and linear regression to estimate the range of ILS used in each two-year period. We drew youth-level and county-level predictors from corresponding periods when available. For instance, for the analyses predicting the ILS utilizations between 17 and 19 using the youth survey data, we used TAY characteristics captured from the baseline youth survey (conducted in 2013 when TAY were about 17), administrative attributes captured from the first caseworker survey (conducted in 2013), and county contexts from public sources in the year 2013. One exception is our main predictor variable, the number of TILP TAY developed with their caseworker. Given that a TAY's ILS utilization may influence the development of TILP with their caseworker, using information from the same time period could introduce directional ambiguity. Thus, as explained earlier, we used the number of TILP developed one year before the period in which ILS utilization was measured. About 4 % of youth survey data (n = 694) had at least one missing value of TILP development, youth-level characteristics, and county-level attributes. To manage biases from missing observations, we used multiple imputation to create and analyze 30 imputed datasets (White et al., 2011). We also applied survey weights when analyzing the youth survey data to account for the study's sampling strategy.

4. Results

4.1. Descriptive statistics

Table 1 presents the descriptive statistics for four samples: administrative data samples in the two periods in which the outcome variables were measured (i.e., between ages 17 and 19 and between ages 19 and 21) and youth survey samples in the same two periods. Note that the statistics for the youth survey samples pertain to TAY meeting the current study's criteria. For descriptive statistics for the entire CalYOUTH sample, see Courtney et al., 2016; Courtney et al., 2014.

As displayed in Table 1, on average, TAY in all four groups received just over one ILS per month and received ILS in about four areas during the two-year period. Between ages 16 and 17, TAY completed an average of 0.4 TILP per year. Between ages 18 and 19, the average number of completed TILP per year was about double (0.8 TILP per year).[6]

Females comprise about six in ten youths in all four samples. More than four in ten youths identify as Hispanic. On average, TAY first entered foster care at an average age of about nine and had just over one placement change per year they were in care. About two-thirds had ever been placed in kinship care, and about half had ever been placed in congregate care. Very few TAY in all four samples had ever been placed in probation-supervised foster care. On average, TAY in our sample had records of about three types of screened-in maltreatment allegations.

Most TAY in the youth survey samples spoke English as their primary language, and more than two-fifths identified themselves as having a sexual preference other than 100 % heterosexual. On average, TAY in the youth survey samples had an optimistic view of their future and reported having about two people whom they could turn to for tangible support and two people for advice/guidance. As expected, compared to the age 17–19 sample, TAY in the age 19–21 sample had higher rates of high school/GED completion and parenthood, lower rates of behavioral health issues and experiences of physical assault, and less frequently engaged in delinquent behaviors. More than a third of TAY in both groups were employed.

About a third of TAY in our sample were placed in Los Angeles County, about half were placed in large urban counties, and one-in-five TAY were placed in urban counties. On average, caseworkers found their county child welfare department's collaboration with other service systems to be satisfactory across the samples (about 3 in the range of 0 [completely dissatisfied] to 4 [completely satisfied]). The percentages of specialized caseworkers in counties where TAY were supervised were higher among the 19–21-year-old samples than the 17–19-year-old samples. On average, TAY tended to be placed in counties with a minority of Republican voters and where the youth unemployment rate was approximately 20–25 %.

4.2. Regression results: predictors of ILS utilization

Table 2 presents the regression results on TAY's ILS utilization patterns between 17 and 19. The first two columns present results from the administrative data sample, and the latter two columns present results from the youth survey sample. The first column within each sample shows the relationships of various factors with the frequency of ILS utilization in terms of incidence rate ratios (IRR), capturing the ratios of the expected count of ILS received per month. The second column within each sample presents the associations between various factors and the number of different types of ILS received over the two years between 17 and 19.

In three models, the results show statistically significant ($p < 0.05$) associations between TAYs' TILP development and ILS utilization. For each additional TILP the TAY developed between age 16 and 17, the expected number of ILS they received between ages 17 and 19 increases by a factor of 1.12 in the administrative data sample ($p = 0.002$) and by 1.15 in the youth survey sample ($p = 0.006$). These suggest that developing an additional TILP is associated with about 10 % additional ILS received per month after controlling for the youth- and county-level characteristics in the models. The number of TILP developed is also positively associated with the number of different types of ILS youth received between ages 17 and 19 in the administrative data sample (coef. = 0.14, $p = 0.049$). The corresponding relationship in the youth survey sample is not statistically significant (coef. = 0.12, $p = 0.313$).

Several youth-level characteristics are also associated with TAY's ILS utilization between 17 and 19. In terms of the frequency of ILS utilization, entering care a year older (administrative data sample only: IRR = 1.02, $p = 0.007$), ever being placed in congregate care (administrative data sample only: IRR = 1.26, $p < 0.001$), having more people who can be turned to for advice (youth survey sample only: IRR = 1.17, $p = 0.026$), and having a positive screen for a mental health disorder (youth survey sample only: IRR = 1.30, $p = 0.018$) are expected to utilize more ILS per month. In the administrative data sample, more placement changes per year in care are associated with a decrease in ILS used per month (IRR = 0.93, $p = 0.022$). In the youth survey sample, TAY who

[6] In separate sensitivity analysis, we estimated the number of TILPs developed with an additional month (i.e., in 13 months after TAY's 16th and 18th birthdays) to take into account possible delays in caseworker documentation. The average numbers of TILP developed in those 13 months (i.e., 0.4 TILP per year at 16 and 0.9 at 18) were not substantially different from the estimates we use, and the regression analysis results were largely similar.

Table 1
Descriptive statistics.

	Administrative data sample				Youth survey sample			
	Ages 17–19 N = 1,246		Ages 19–21 N = 842		Ages 17–19 N = 415		Ages 19–21 N = 290	
	N	Mean (SD) / %	N	Mean (SD) / %	N	Weighted Mean (SD) / %	N	Weighted Mean (SD) / %
Outcome variables (Administrative data)								
ILS received per month		1.27 (1.62)		1.26 (1.39)		1.41 (2.08)		1.39 (1.36)
Range of ILS received		3.86 (1.90)		3.68 (2.01)		4.02 (1.85)		3.86 (1.91)
Explanatory variable (Administrative data)								
Number of TILP developed in prior 12 months		0.39 (0.72)		0.84 (1.05)		0.39 (0.75)		0.88 (1.06)
Demographic characteristics (Administrative data & Youth Survey data Waves 1/2)[1]								
Male	541	43.4	344	40.9	170	41.2	145	37.9
Race/Ethnicity								
White	251	20.1	168	20.0	89	17.4	71	16.1
Black	349	28.0	221	26.3	68	19.4	63	21.9
Hispanic	546	43.8	382	45.4	185	46.1	167	48.8
Multiracial/ethnic	61	4.9	41	4.9	56	14.1	37	8.9
Other[2]	27	2.2	20	2.4	17	2.9	19	4.4
Foster care history (Administrative data)								
Age of first foster care entry		8.88 (5.12)		9.01 (5.11)		9.27 (5.06)		9.59 (5.15)
Number of placement changes per year in care before 18		1.30 (0.92)		1.25 (0.91)		1.35 (0.95)		1.26 (0.88)
Ever placed in kinship care	804	64.5	546	64.8	255	62.8	255	63.7
Ever placed in congregate care	663	53.2	414	49.2	219	55.1	219	49.9
Ever in probation-supervised foster care	13	1.0	6	0.7	4	1.0	4	0.2
Number of screened-in-report maltreatment allegations experienced		3.06 (1.17)		3.01 (1.18)		3.03 (1.13)		3.00 (1.15)
Demographic characteristics (Youth survey data; Waves 1/2)								
Age at the time of the youth survey						17.47 (0.30)		19.44 (0.24)
English as the primary language					371	87.5	331	89.3
Sexual preference (ref. 100 % heterosexual)					102	25.5	79	21.0
Risk and protective factors (Youth survey data; Wave 1/2)								
Being optimistic about the future						3.51 (0.70)		3.51 (0.64)
Number of individuals available for tangible support						1.98 (0.90)		1.86 (0.94)
Number of individuals available for guidance support						1.92 (0.94)		1.85 (0.88)
High school (or GED) completion					52	10.7	270	74.8
Ever employed					154	35.7	128	35.4
Screened positive for a mental health disorder					176	40.1	101	26.0
Screened positive for a substance use disorder					95	20.5	50	11.9
Being a parent					23	5.9	67	18.2
Experienced physical assault					47	12.6	18	1.9
Frequency of delinquent behaviors						0.31 (0.42)		0.09 (0.21)
County-level predictors (Caseworker survey data [Wave 1/2] and public sources)								
Urbanicity								
Rural/Mostly rural county	54	4.3	30	3.6	38	4.1	21	3.3
Urban county	257	20.6	176	20.9	116	18.8	82	18.9
Large urban county	567	45.5	407	48.3	200	48.2	150	53.0
Los Angeles County	368	29.5	229	27..2	61	29.0	37	24.9
Quality of inter-system collaboration		3.12 (0.30)		2.98 (0.25)		3.11 (0.29)		2.98 (0.24)
Percentage of specialized caseworkers		11.83 (15.48)		42.7 (23.99)		12.59 (15.45)		43.55 (22.30)
Youth (age 16–24) unemployment rate		24.58 (5.14)		18.79 (4.24)		24.44 (5.11)		18.41 (4.04)
Percentage of registered voters identified as Republicans		28.76 (9.75)		27.99 (9.89)		28.68 (9.93)		27.82 (10.14)

Note: [1] For gender and race/ethnicity, information for the administrative data samples came from child welfare administrative records, and information for the youth survey samples came from the Wave 1 and Wave 2 youth survey data. [2] Includes Asian, Pacific Islander, American Indian, and Alaskan Native.

had ever been in probation-supervised foster care (IRR = 0.39, p = 0.032), ever been employed (IRR = 0.79, p = 0.041), who were parents (IRR = 0.55, p = 0.005), and ever experienced physical assault (IRR = 0.60, p < 0.001) are expected to use fewer ILS per month after controlling for various other conditions. In terms of the range of ILS utilization, TAY who had ever been placed in congregate care (administrative data sample: coef. = 0.44, p < 0.001; youth survey sample: coef. = 0.71, p = 0.001) and entered foster care at older ages (administrative data sample only: coef. = 0.02, p = 0.041) are expected to use a wider range of ILS. TAY who engaged in more frequent delinquent behaviors (youth survey sample only: coef. = −0.61, p = 0.015) and TAY who ever in probation-supervised foster care (youth survey

Table 2
Regression results: Predictors of ILS utilization between ages 17 and 19.

	Administrative data sample (N = 1,246)		Youth survey sample (N = 415)	
	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)
Explanatory variable				
Number of TILP developed in prior 12 months	1.12** (1.04, 1.19)	0.14* (0.00, 0.27)	1.15** (1.04, 1.28)	0.12 (−0.12, 0.36)
Demographic characteristics				
Age at the time of the youth survey			1.41 (0.91, 2.19)	0.31 (−0.35, 0.96)
Male (ref. female)	0.99 (0.89, 1.10)	−0.13 (−0.34, 0.07)	0.97 (0.76, 1.24)	−0.237 (−0.75, 0.01)
Race/Ethnicity (ref. Black)				
White	0.86 (0.74, 1.01)	−0.04 (−0.36, 0.27)	0.94 (0.65, 1.36)	0.33 (−0.27, 0.93)
Hispanic	0.96 (0.84, 1.10)	−0.05 (−0.29, 0.19)	1.05 (0.79, 1.40)	0.50* (0.00, 1.00)
Multiracial/ethnic	0.98 (0.78, 1.23)	−0.45 (−1.01, 0.10)	1.02 (0.61, 1.68)	0.24 (−0.44, 0.92)
Other[1]	0.98 (0.71, 1.35)	0.29 (−0.45, 1.03)	0.54 (0.26, 1.12)	−0.17 (−1.12, 0.79)
English as the primary language			1.34 (0.90, 2.00)	0.36 (−0.28, 1.04)
Sexual preference (ref. 100 % heterosexual)			0.84 (0.62, 1.15)	−0.00 (−0.46, 0.46)
Foster care history				
Age of first foster care entry	1.02** (1.00, 1.03)	0.02* (0.00, 0.04)	1.01 (0.99, 1.04)	0.02 (−0.01, 0.06)
Number of placement changes per year in care before 18	0.93* (0.87, 0.99)	−0.11 (−0.24, 0.02)	0.93 (0.81, 1.08)	0.06 (−0.15, 0.27)
Ever placed in kinship care	1.00 (0.87, 1.11)	−0.08 (−0.28, 0.13)	0.90 (0.71, 1.15)	−0.00 (−0.37, 0.37)
Ever placed in congregate care	1.26*** (1.12, 1.41)	0.44*** (0.21, 0.66)	1.30 (0.98, 1.73)	0.71** (0.30, 1.12)
Ever in probation-supervised foster care	0.58 (0.32, 1.08)	−0.61 (−1.50, 0.28)	0.39* (0.16, 0.92)	−1.81* (−3.46, −0.15)
Number of screened-in-report maltreatment allegations experienced	1.04 (1.00, 1.01.09)	0.01 (−0.07, 0.10)	1.12 (0.97, 1.29)	−0.12 (−0.29, 0.05)
Risk and protective factors				
Being optimistic about the future			0.97 (0.81, 1.16)	−0.13 (−0.36, 0.10)
Number of individuals available for tangible support			0.96 (0.85, 1.08)	0.06 (−0.14, 0.26)
Number of individuals available for guidance support			1.17* (1.02, 1.34)	0.04 (−0.15, 0.23)
High school (or GED) completion			1.21 (0.87, 1.68)	−0.48 (−1.02, 0.06)
Ever employed			0.79* (0.63, 0.99)	0.01 (−0.38, 0.40)
Screened positive for a mental health disorder			1.30* (1.05, 1.62)	0.26 (−0.15, 0.66)
Screened positive for a substance use disorder			0.94 (0.68, 1.29)	0.31 (−0.16, 0.79)
Being a parent			0.55** (0.36, 0.83)	−0.27 (−1.00, 0.46)
Experienced physical assault			0.60** (0.44, 0.82)	−0.08 (−0.72, 0.56)
Frequency of delinquent behaviors			1.08 (0.71, 1.63)	−0.61* (−1.10, −0.12)
County-level predictors				
Urbanicity (ref. Los Angeles County)				
Rural/Mostly rural county	2.37*** (1.66, 3.39)	1.25*** (0.60, 1.89)	2.08** (1.28, 3.38)	0.77 (−0.15, 1.70)
Urban county	3.27*** (2.62, 4.08)	1.09*** (0.68, 1.51)	2.75*** (1.85, 4.08)	0.58 (−0.11, 1.28)
Large urban county	2.54*** (2.07, 3.13)	0.85*** (0.46, 1.23)	2.36*** (1.61, 3.47)	0.91** (0.36, 1.46)
Quality of inter-system collaboration	1.59*** (1.30, 1.94)	−0.26 (−0.76, 0.24)	1.42 (0.89, 2.27)	2.12*** (1.22, 3.02)
Percentage of specialized caseworkers (10 %)	1.12*** (1.07, 1.17)	0.27*** (0.17, 0.36)	1.21*** (1.11, 1.33)	−0.03 (−0.15, 0.10)
Youth (age 16–24) unemployment rate	1.01 (1.00, 1.02)	0.00 (−0.02, 0.02)	1.02** (1.01, 1.04)	0.09*** (0.04, 0.14)
Percentage of registered voters identified as Republicans	0.99* (0.99, 1.01)	0.00 (−0.01, 0.02)	0.99* (0.98, 1.00)	−0.02* (−0.04, −0.00)
Chi2 / F	363.9***	17.21***	6.04***	6.16***

Note:*p < 0.05, **p < 0.01, ***p < 0.001. IRR = Incidence Rate Ratio. [1] Includes Asian, Pacific Islander, American Indian, and Alaskan Native.

sample only: coef. = −1.81, p = 0.033) are expected to use a narrower range of ILS. Compared to Black TAY, Hispanic TAY are predicted to use a broader range of ILS between ages 17 and 19 in the youth survey sample (coef. = 0.50, p = 0.049).

Multiple county-level attributes were associated with ILS utilization between 17 and 19. Compared to youth in Los Angeles County, youth in rural/mostly rural, urban, and large urban counties are expected to receive two to three additional ILS per month in both administrative data sample and youth survey sample (p < 0.01). Youth in large urban counties are also expected to receive about one additional type of ILS compared to youth in Los Angeles County (administrative data sample:

coef. = 0.85, p < 0.001; youth survey sample: coef. = 0.91, p = 0.001). In the administrative sample, youth in rural/mostly rural (IRR = 1.25, p < 0.001) and urban counties (IRR = 1.09, p < 0.001) are expected to receive a wider range of ILS than youth in Los Angeles County. In separate analyses with rural/mostly rural county as a reference category, the frequency and range of ILS utilization are not statistically different from urban and urban counties in either the administrative data and youth survey data samples (p > 0.05).

Another notable predictor is the percentage of child welfare caseworkers in a county who specialized in working with TAY. A 10 % increase in a county's specialized caseworkers is associated with a 12 % increase (administrative data sample: p < 0.001) and a 21 % increase (youth survey sample: p < 0.001) in the expected number of ILS used per month. The range of ILS youth received is also positively associated with the percentage of specialized caseworkers in a county in the administrative sample (coef. = 0.27, p < 0.001) but is not statistically significant in the youth survey sample (coef. = −0.03, p = 0.678). Caseworkers' assessment of f the quality of inter-system collaboration is also positively associated with the number of ILS received (administrative data sample only: IRR = 1.59, p < 0.001) and range of ILS (youth survey sample only: coef. = 2.12, p < 0.001). The other county variables reflecting the political and economic contexts are associated with TAY's ILS utilization. In the youth survey sample, TAYs are expected to use more ILS per month (IRR = 1.02, p = 0.005) and wider range of ILS (coef. = 0.09, p < 0.001) in counties with higher youth unemployment rates. TAY in counties with a higher percentage of Republican voters are expected to use fewer ILS per month (administrative data sample: IRR = 0.99, p = 0.027; youth survey sample: IRR = 0.99, p = 0.020) and a narrower range of ILS (youth survey sample only, coef. = −0.02, p = 0.031).

Table 3 presents the results of regression analyses examining predictors of TAY ILS utilization patterns between ages 19 and 21. The statistically significant associations between TAYs' TILP development and their ILS utilization were similar to the younger age range. One additional TILP developed between 18 and 19 is associated with a 16 % increase (administrative data sample, p < 0.001) and a 14 % increase (youth survey sample, p = 0.029) in monthly ILS utilization between 19 and 21. TAY who developed more TILP are expected to receive a wider range of ILS in the administrative data sample (coef. = 0.19, p = 0.009), but the relationship was only marginally significant in the youth survey sample (coef. = 0.23, p = 0.052). Only four TAY-level factors were associated with ILS utilization patterns between 19 and 21. TAY who entered foster care later ages (administrative data sample only: IRR = 1.03, p < 0.001) and TAY who were ever placed in kinship care (administrative data sample only: IRR = 1.14, p = 0.048) are expected to use more ILS per month. Multiracial TAY are predicted to use fewer ILS per month between ages 17 and 19 than Black TAY (IRR. = 0.69, p = 0.034) and White TAY (IRR = 0.66, p = 0.014) in the administrative data sample. TAY who had ever been placed in probation-supervised foster care are expected to use fewer ILS each month between ages 19 to 21 (youth survey sample only: IRR = 0.25, p < 0.001).

Regarding the associations of county-level factors and TAY ILS utilization patterns between 19 and 21, TAY in large urban counties are expected to use a greater number and a wider range of ILS compared to TAY in Los Angeles County in both samples (p < 0.05). In the analysis with the administrative data sample, compared to TAY in Los Angeles County, TAY in urban counties are expected to use more ILS per month (IRR = 2.03, p < 0.001) and receive almost one additional type of ILS (coef. = 0.90, p < 0.001). In additional analyses with rural/mostly rural county as the reference category, youth in urban (IRR = 2.48, p = 0.004 in administrative data sample; IRR = 2.22, p = 0.005 in youth survey sample) and large urban counties (IRR = 2.43, p = 0.006 in administrative data sample; IRR = 2.57, p = 0.002 in youth survey sample) are expected to use more ILS per month than youth in rural/mostly rural counties. In terms of the range of ILS, youth in urban (administrative data sample only: coef. = 1.80, p < 0.001) and large urban counties (coef. = 2.04, p < 0.001 in administrative data sample; coef. = 1.41, p <

Table 3
Regression results: Predictors of ILS utilization between ages 19 and 21.

	Administrative data sample (N = 842)		Youth survey sample (N = 290)	
	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)
Explanatory variable				
Number of TILP developed in prior 12 months	1.16*** (1.09, 1.23)	0.19** (0.05, 0.33)	1.14* (1.01, 1.29)	0.23 (−0.00, 0.46)
Demographic characteristics				
Age at the time of the youth survey			0.84 (0.53, 1.34)	−0.52 (−1.55, 0.50)
Male (ref. female)	0.95 (0.84, 1.09)	−0.15 (−0.41, 0.11)	1.02 (0.76, 1.36)	0.08 (−0.46, 0.62)
Race/Ethnicity (ref. Black)				
White	1.06 (0.87, 1.28)	−0.25 (−0.67, 0.17)	1.09 (0.72, 1.63)	0.22 (−0.65, 1.10)
Hispanic	0.94 (0.80, 1.11)	−0.06 (−0.38, 0.25)	0.93 (0.65, 1.34)	−0.17 (−0.87, 0.52)
Multiracial/ethnic	0.69* (0.49, 0.97)	−0.57 (−1.29, 0.16)	0.93 (0.57, 1.52)	0.25 (−0.68, 1.18)
Other[1]	0.85 (0.57, 1.27)	−0.55 (−1.48, 0.39)	0.84 (0.37, 1.88)	−0.36 (−1.68, 0.96)
English as the primary language			1.05 (0.61, 1.83)	−0.37 (−1.37, 0.63)
Sexual preference (ref. 100 % heterosexual)			0.91 (0.67, 1.22)	−0.15 (−0.73, 0.44)
Foster care history				
Age of first foster care entry	1.03*** (1.01, 1.04)	0.02 (−0.01, 0.05)	1.02 (0.99, 1.04)	0.01 (−0.04, 0.06)
Number of placement changes per year in care before 18	0.97 (0.89, 1.05)	−0.05 (−0.23, 0.12)	1.09 (0.93, 1.28)	0.04 (−0.29, 0.37)
Ever placed in kinship care	1.14* (1.00, 1.31)	0.22 (−0.06, 0.49)	1.08 (0.85, 1.38)	0.32 (−0.20, 0.84)
Ever placed in congregate care	1.05 (0.91, 1.21)	0.14 (−0.15, 0.44)	0.90 (0.67, 1.20)	−0.06 (−0.59, 0.47)
Ever in probation-supervised foster care	0.39 (0.12, 1.30)	−0.01 (−1.10, 1.07)	0.25*** (0.13, 0.50)	0.71 (−0.57, 1.99)
Number of screened-in-report maltreatment allegations experienced	1.05 (0.99, 1.11)	0.01 (−0.11, 0.12)	1.05 (0.94, 1.17)	0.06 (−0.17, 0.29)
Risk and protective factors				
Being optimistic about the future			0.89 (0.73, 1.08)	0.06 (−0.34, 0.45)
Number of individuals available for tangible support			0.94 (0.80, 1.10)	−0.20 (−0.48, 0.08)

(continued on next page)

Table 3 (*continued*)

	Administrative data sample (N = 842)		Youth survey sample (N = 290)	
	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)	ILS received per month IRR (95 % CI)	Range of ILS received Coef. (95 % CI)
Number of individuals available for guidance support			1.07 (0.88, 1.28)	0.08 (−0.23, 0.39)
High school (or GED) completion			0.90 (0.67, 1.21)	−0.22 (−0.81, 0.36)
Ever employed			1.07 (0.81, 1.40)	−0.02 (−0.56, 0.52)
Screened positive for a mental health disorder			0.98 (0.74, 1.30)	0.15 (−0.38, 0.68)
Screened positive for a substance use disorder			1.02 (0.68, 1.51)	−0.03 (−0.83, 0.77)
Being a parent			0.89 (0.64, 1.26)	0.18 (−0.51, 0.87)
Experienced physical assault			0.47 (0.16, 1.43)	−1.21 (−2.97, 0.56)
Frequency of delinquent behaviors			0.91 (0.50, 1.68)	−0.20 (−1.40, 1.00)
County-level predictors				
Urbanicity (ref. Los Angeles County)				
Rural/Mostly rural county	0.82 (0.43, 1.58)	−0.90 (−1.86, 0.06)	0.63 (0.32, 1.26)	−0.53 (−1.95, 0.89)
Urban county	2.03*** (1.56, 2.64)	0.90*** (0.40, 1.39)	1.40 (0.86, 2.28)	0.28 (−0.62, 1.19)
Large urban county	1.99*** (1.61, 2.45)	1.14*** (0.76, 1.51)	1.63* (1.06, 2.50)	0.88* (0.15, 1.60)
Quality of inter-system collaboration	1.84*** (1.34, 2.53)	2.44*** (1.67, 3.21)	1.84* (1.15, 2.95)	1.92** (0.83, 3.01)
Percentage of specialized caseworkers (10 %)	0.98 (0.94, 1.03)	−0.15** (−0.25, −0.05)	0.97 (0.90, 1.05)	−0.18* (−0.34, −0.02)
Youth (age 16–24) unemployment rate	1.01 (1.00, 1.03)	0.08*** (0.04, 0.12)	1.01 (0.98, 1.05)	0.06 (−0.01, 0.12)
Percentage of registered voters identified as Republicans	0.99** (0.98, 1.00)	−0.01 (−0.03, 0.01)	0.99 (0.98, 1.00)	−0.01 (−0.04, 0.02)
Chi2 / F	189.43***	13.56***	10.34***	4.74***

Note:*p < 0.05, **p < 0.01, ***p < 0.001. IRR = Incidence Rate Ratio. [1] Includes Asian, Pacific Islander, American Indian, and Alaskan Native.

0.001 in youth survey sample) are expected to use a wider range of ILS than youth in rural/mostly rural counties. We find no significant difference between youth in rural/mostly rural county and youth in Los Angeles County in the frequency and range of ILS utilization between 19 and 21 (p > 0.05).

Caseworkers' perceived quality of inter-system collaboration is positively associated with the number of ILS TAY used per month between ages 19 to 21 in both samples (administrative data sample: IRR = 1.84, p < 0.001; youth survey sample: IRR = 1.84, p = 0.011). The quality of inter-system collaboration is also significantly associated with the range of ILS received in the administrative data sample (coef. = 2.44, p < 0.001) and the youth survey sample (coef. = 1.92, p = 0.001). Interestingly, the percentage of specialized caseworkers in a county is found to be negatively associated with the range of ILS utilized by TAY between 19 and 21 (administrative data sample: coef. = −0.15, p = 0.004; youth survey sample: coef. = −0.18, p = 0.024). The result may be due to specialized caseworkers guiding TAY to use more relevant and specific types of services. TAY in the counties with a higher youth unemployment rate are expected to use a broader range of ILS (administrative data sample only: coef. = 0.08, p < 0.001).

5. Discussion

Corporate parenting, the state's role in providing care and support to TAY, is critical in understanding the challenges and supports as TAY transition out of foster care and into adulthood. Over the past four decades, TILP and ILS have been two approaches to support TAY during this transition. Despite the intended policy design that TILP planning would connect youth to ILS, the relationship between TILP development and ILS utilization has been largely unstudied. Using two sources of data of TAY in California, we offer rare quantitative evidence demonstrating a strong relationship between TAYs' TILP development and ILS utilization in two age periods: between ages 17 and 19 and between ages 19 and 21. TAY with a greater number of documented TILP in the year preceding each period receive ILS more frequently and receive a broader range of ILS after controlling for other youth-level and county-level attributes. The results should not be surprising, but they provide some assurance that TILP promote the utilization of ILS as they are planned to do.

Our study also highlights the importance of county-level contexts, rarely discussed in the previous studies that examined TAYs' TILP development or ILS utilization. Our results show that the frequency and range of ILS utilization vary significantly based on the urbanicity of the county TAY is located. TAY in large urban counties (and urban counties in most analyses) are likely to use more and a wider range of ILS than TAY in Los Angeles County. Supplemental analyses show that youth in rural/mostly rural counties are likely to use more and a wider range of ILS than youth in Los Angeles County between 17 and 19, while no significant difference in ILS utilization is observed when youth are between 19 and 21. Collectively, these findings suggest that youth in Los Angeles County may have limited access to services and resources that could benefit their transition to adulthood. Controlling the degrees of urbanicity and other county- and youth-level factors, we find that youth in more conservative counties receive fewer ILS. Similar to a previous study that shows TAY in conservative counties spend less time in EFC (Park et al., 2020), our finding indicates that local political atmosphere is associated with county ILS practice and TAY's ILS utilization. Our analyses also show that youth in counties with higher youth unemployment rates receive more and a wider range of ILS, potentially as way to better prepare TAY for the job market and economic conditions.

Notably, two county child welfare administrative contexts were significant predictors of the frequency and range of ILS utilization. For TAY between the ages of 17 and 19, the percentage of caseworker specialization was found to be positively associated with more frequent monthly ILS utilization and use of a broader range of ILS types. For TAY between the ages of 19 and 21, the quality of inter-system collaboration was associated with the expected frequency and range of ILS utilization. These findings suggest period-specific relationships between county administrative contexts and TAYs' ILS utilization. During the age 17–19 period, TAY are in the process of transitioning from being a minor to a nonminor dependent in the eyes of the child welfare system. Having a caseworker who specializes in older youth may be especially important during this transition in connecting youth to more frequently and a broader range of ILS. TAYs' needs could be addressed within the county child welfare department's capability, leveraging caseworkers' knowledge and connections. However, TAY between the ages of 19–21 are preparing for the transition out of foster care. During this time, TAY may

need services and supports young adults as they live on their own, obtain employment, become parents, pursue higher education, and manage their finances. Thus, what may be more important is not the proportion of TAY-specialized workers in a county, but the strength of relationships child welfare agencies have with other local service fields that could potentially provide more relevant and appropriate ILS for older TAY.

Our study underscores the usefulness of corporate parenting as a framework for understanding the experiences and outcomes of TAY that child welfare agencies are charged to serve. The nuanced understanding of TILP and ILS usage within the concept of corporate parenting emphasizes the need for a more integrated and responsive approach to child welfare practices. Our results also emphasize the importance of considering individual and systemic factors in designing and implementing support programs for TAY. By addressing these factors, corporate parenting can more effectively guide TAY through their transition to adulthood, ensuring they have the necessary skills, support, and opportunities to thrive independently.

5.1. Limitations

Our study comes with multiple limitations. First, although we draw the full administrative records of ILS utilized, the ILS a TAY received may not be relevant to their needs and may not correspond to the goals articulated in their TILP. Simply using a wider range of ILS more often might go against the purposes of TILP in developing a focused service plan that is tailored to the TAY's needs and interests. Second, while we draw TILP records from the administrative data, we do not know whether TILP reflect TAYs' wishes and needs or how TILP are developed. Previous studies suggest that some TAY may be unaware of TILP that were documented by their caseworker, suggesting not all TILP are co-produced (Park et al., 2020, 2021). Third, our measures of TILP and ILS merely document that they happened and lack more nuanced information such as the quality of youth engagement in TILP development and the duration, dosage, and usefulness of ILS. This is a particularly salient limitation given TAY's ILS utilization is voluntary and the way counties organize ILS can vary (California Department of Social Services, 2023).

Fourth, we draw county caseworkers' self-reports to capture characteristics of their county's administrative context. While the caseworker surveys used a representative sample and responses within a county were pooled to minimize the biases of individual workers, we cannot validate whether their responses accurately reflect the true county service context (e.g., the degree of collaboration with other service fields). Fifth, our findings may not be generalizable in other child welfare settings. California has a decentralized county-administered child welfare system and allows TAY to remain in EFC until age 21, which may have influenced TAYs' TILP and ILS engagement differently from TAY in states with a centralized child welfare system or without EFC.

Sixth, we cannot measure how the intersectionality of identities of TAY, including gender, sexual preference, and primary language, and the socioeconomic, racial, or ethnic backgrounds, impact their interaction with TILP and ILS. The use of binary categories for gender and sexuality, along with limited classifications for primarily language, racial, and ethnic backgrounds in our survey, potentially restricts a comprehensive understanding of how diverse identities influence the experiences and outcomes associated with TILP and ILS. These limitations impede our ability to fully explore the nuanced impacts of these services on TAY with varied gender, sexual, cultural, racial, and ethnic identities. This limitation highlights a gap in our understanding and underscores the need for more comprehensive data collection methods to better assess the needs and experiences of diverse youth. Seventh, it is important to consider the biases and assumptions about 'success' and 'independence' that are inherent in TILP and ILS. There is a decidedly strong emphasis on TAY becoming independent and economically self-sufficient. This reflects broader societal norms and does not account for TAYs' diverse paths toward independence and to seeking interdependence (Anderson & Williams, 2018). Eighth, our analyses do not extend beyond conventional measures of program success to include a wider array of life skills and support mechanisms for TAY. This may perpetuate a one-size-fits-all notion often inherent in programmatic definitions of success. It also fails to recognize the importance of other types of support TAY draw on from parents (Havlicek, 2021) and other key members of their social networks (Okpych et al., 2023). Moreover, many TAY are resourceful and develop needed skill independently or by learning from observing others, without the use of TILP or ILS. Our analyses did not capture these diverse sources of support, learning, and skill building.

5.2. Research implications

Our findings and study limitations leave multiple implications for research. First, future studies should examine whether the ILS TAY receive match the needs and interests identified in their TILP, which would require connecting specific information from the TILP document to ILS utilization data. Connecting TAY with the ILS that are irrelevant to their needs and desires would not only waste public resources but may also harm the trust they place in relationships with service providers and caseworkers. This could lead TAY to disengage from future services and training that could truly benefit them. We know that there is significant variation in TAYs' needs and wishes and the types and availability of ILS (California Department of Social Services, 2023). Thus, examining whether the types of ILS (e.g., education, employment, social/-interpersonal skills) correspond to the identified service domains from TILP would be a promising approach.

Second, future studies should investigate how TAYs' TILP engagement and ILS utilization impact long-term outcomes, with attention to contextual factors. Ultimately, TILP and ILS are means to an end, preparing a TAY for adulthood. The existing research on the impact of TILP on youth comes largely from qualitative studies with purposive samples (Delgado et al., 2022). Previous studies examining the effectiveness of ILS did not consider the roles of co-produced TILP and the context in which TAY are embedded (Liu et al., 2019; Montgomery et al., 2006). Our results suggest the importance of TILP development and administrative contexts in the frequency and range of TAYs' ILS utilization and outcomes. The effectiveness of bundled ILS (e.g., financial management and employment, parenting skills and health care) on various outcomes is another promising research area with limited attention (Cook et al., 1991; Häggman-Laitila et al., 2018).

Third, a mixed-method examination of TILP development processes would be a promising next step to better understand the use of varying co-production mechanisms and their impacts on TAYs' ILS experience and outcomes. Previous studies suggest that multiple approaches are available in TILP development, including worker-driven production (not involving TAY), youth-driven co-production (ask TAY to lead the process), and youth-worker co-production (TAY and caseworker collaborate in TILP deliberation) (Park et al., 2020, 2021). Rather than using only one approach, caseworkers might be trained to use different approaches depending on multiple factors, including the nature of the TAY's needs (e.g., salience, feasibility), their interests and desires, their attributes (e.g., degrees of preparedness and progress), and county child welfare department's capacity and administrative structures (e.g., availability of quality services, caseload sizes). Contextualizing the caseworkers' use of various approaches would highlight adaptive approaches caseworkers use to link TAYs to relevant ILS based on their evolving needs and interests. It would also inform how the foster care system could better support the caseworkers and TAY in making informed TILP with the necessary resources.

Fourth, the manner in which ILS are administered is an important research area with little empirical evidence. Reports from the California Department of Social Services (2023) highlight the diverse ways county child welfare departments are structured, staffed, and operate, given the

decentralized child welfare administrative system. Some counties internally hire specialized caseworkers to administer ILS; others contract the services out to private nonprofits. Some counties leverage one-on-one sessions to address TAYs' specific needs (e.g., personal finance); others use group meetings and workshops (e.g., on accessing credit reports). Many counties develop unique ILS using local resources (e.g., community colleges and professional sports teams). Comparative studies on how counties use various approaches, methods, and resources would better inform the factors influencing the TILP process, the impacts of ILS on TAY outcomes, and ways to close performance gaps in decentralized child welfare systems.

Fifth, the concept of corporate parenting emerges as a critical dimension. This responsibility extends beyond the provision of basic care, but rather encompasses a duty to facilitate successful transitions to adulthood for TAY. Future research should explore how corporate parenting principles are actualized through TILP and ILS, including the alignment between the state's role as a corporate parent and the efficacy of TILP and ILS in addressing the unique needs of TAY. Such research should consider the effectiveness of these programs in preparing youth for independent and interdependent living, focusing on how youth gain resilience, life skills, and self-sufficiency, and develop lasting relationships that endure beyond their involvement with the child welfare system. Investigating the interaction between TILP and ILS within the framework of corporate parenting can shed light on how to optimize these initiatives to better serve TAY.

5.3. Practice and policy implications

Our study has important practice and policy implications for TILP and efforts to reduce county-level variation in TILP and ILS practices. First and foremost, our findings encourage caseworkers to update TILP regularly. Our study adds supportive evidence of the importance of TILP in TAYs' preparation for adulthood transition by demonstrating strong relationships between TILP development and ILS utilization. At the same time, our analyses suggest that some TAY may be less likely to access ILS. Despite the legal mandates to develop TILP after age 16 and the California Department of Social Services' expectation that TILP will be updated every six months, as well as our conservative sampling frame to include only TAY who stayed in care for the full two years between ages 17 and 19 and between 19 and 21, our results show that the average TAY in our sample developed less than one TILP per year. Previous studies (Park et al., 2020, 2021) and the current results suggest that vulnerable subgroups (e.g., parents, physically assaulted TAY) might engage less in the TILP process and use fewer and a narrower range of ILS. Caseworkers and administrators need to pay extra attention to these groups to ensure equitable access to co-production opportunities and responsive ILS that are needed.

Second, our study encourages county administrators and supervisors to support TILP and ILS practices and consider how administrative decisions affect TAYs' TILP and ILS experiences. To ease caseworkers' work with TAY with multifaceted needs, county child welfare departments need to consider using standardized tools for documenting TILP outputs and referring TAY to relevant ILS, as well as training caseworkers on how to collaborate with TAY in co-producing TILP and motivate TAYs to engage in ILS. Although many contextual factors are outside the control of county administrators (e.g., political climate and unemployment rate), some factors are at the discretion of county child welfare departments, such as hiring more specialized caseworkers and improving and establishing collaborative relationships with other service systems.

Third, state and federal administrators need to monitor performance indicators of local child welfare administrative systems more frequently and try to close disparities in TILP participation and ILS utilization. Our findings imply that TILP and ILS engagement likely vary considerably across California. Regional and local variation in child welfare practices and contexts is one of the core limitations of decentralized administrative systems (Elgin & Carter, 2019; Hutchcroft, 2001; Park et al., 2022). Thus, state and federal administrators should pay attention to performance (e.g., frequency of TILP developed and range of ILS utilized) to identify systemic issues associated with service gaps, monitor how policy and administrative practice change impacts caseworker practice and TAY experience, and facilitate cross-county/state learning opportunities to share innovative approaches.

Fourth, understanding the state's role in corporate parenting is vital for effectively integrating TILP and ILS programs. Child welfare agencies should consider creating environments where TAY feel valued and heard and tailoring services to their expressed needs. Emphasizing a corporate parenting lens would require training caseworkers and administrators in corporate parenting principles, focusing on building strong, supportive relationships with TAY. Moreover, public child welfare agencies would continuously evaluate and adapt their practices in response to the changing needs of TAY, fostering a culture of continuous learning and improvement. By acknowledging the state's responsibilities as a corporate parent in TILP and ILS, agencies can improve their support for TAY by providing them with the skills and resources that will support their transition to adulthood. This approach helps the state fulfill its duty to care for these young people as a caring, responsive, and supportive parent would.

6. Conclusion

TILP and ILS have been important for preparing TAYs for adulthood in the U.S. since the 1980 s, with little empirical evidence on how TAYs' TILP participation shapes their ILS use. Leveraging population administrative data and representative survey data, our research demonstrates robust connections between TAYs' TILP development and the frequency and range of ILS utilization. Our study calls for greater attention to the role of co-production, a human right according to the United Nations Convention on the Rights of the Child (U.N. General Assembly, 1989) and legally mandated practice by multiple U.S. federal laws. We also highlight the importance of the administrative contexts in TAYs' ILS utilization. The idea of corporate parenting is pivotal, particularly in decentralized systems where administrators have significant discretion and authority in improving TAYs' experience and outcomes. The corporate parenting concept emphasizes the state's duty to ensure TAY not only receive structured support but also experience a nurturing environment akin to what a responsible parent would provide. This study underscores the need for agencies to integrate corporate parenting principles in TILP and ILS processes, enhancing the overall effectiveness of these programs in supporting TAY in their transition to adulthood.

Disclaimer

The CalYOUTH study was performed with the permission of the California Department of Social Services; however, the opinions and conclusions are solely those of the authors and do not represent the policy or opinions of the collaborating agencies or any California Department.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data availability

The authors do not have permission to share data.

References

Abrams, L. S., Curry, S. R., Lalayants, M., & Montero, L. (2017). The influence of policy context on transition age foster youths' views of self-sufficiency. *Journal of Social Service Research, 43*(1), 37–51. https://doi.org/10.1080/01488376.2016.1217579

Administration for Children and Families. (1987). *Independent Living Initiatives* (ACYF-PI-87-01). Administration for Children and Families.

Allen, M., & Nixon, R. (2000). Foster care independence act and John H. Chafee foster care independence program: New catalysts for reform for young people aging out of foster care. *Clearinghouse Review, 3–4*, 197–216.

Anderson, B. L., & Williams, A. L. (2018). Defining success: The perspective of emerging adults with foster care experience. *Journal of Social Service Research, 44*(5), 643–655. https://doi.org/10.1080/01488376.2018.1477697

Barth, R. P. (1990). On their own: The experiences of youth after foster care. *Child and Adolescent Social Work Journal, 7*(5), 419–440. https://doi.org/10.1007/BF00756380

Bullock, R., Courtney, M. E., Parker, R., Sinclair, I., & Thoburn, J. (2006). Can the corporate state parent? *Adoption & Fostering, 30*(4), 6–19. https://doi.org/10.1177/030857590603000403

California Department of Social Services. (2000). *Applying Non-Specific John H. Chafee Foster Care Independence Program Amendments to the Indepdent Living Program Allowable Expenditure for Emancipated Youth Stipends [All County Letter 00-84]*. California Department of Social Services. https://cdss.ca.gov/lettersnotices/entres/getinfo/acl00/pdf/00-84.PDF.

California Department of Social Services. (2008). *New transitional independent living plan (TILP) agreement for foster youth (ALL COUNTY LETTER NO*. California Department of Social Services. https://www.cdss.ca.gov/lettersnotices/entres/getinfo/acl08/08-31.pdf.

California Department of Social Services. (2023). *Child and Family Services Plan*. https://www.cdss.ca.gov/inforesources/child-welfare-program-improvement/child-and-family-services-plan.

Child Welfare Information Gateway. (2022). *Extension of foster care beyond age 18*. U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau. https://www.childwelfare.gov/topics/systemwide/laws-policies/statutes/extensionfc/.

Collins, M. E., & Ward, R. L. (2011). Services and outcomes for transition-age foster care youth: Youths' perspectives. *Vulnerable Children and Youth Services, 6*(2), 157–165.

Cook, R., Fleishman, E., & Grimes, V. (1991). *A national evaluation of Title IV-E Foster Care Independent Living Programs for Youth. Phase 2 final report. Volumes 1 and 2*. Westat, Inc. https://eric.ed.gov/?id=ED348599.

Courtney, M. E. (2009). The difficult transition to adulthood for foster youth in the US: Implications for the state as corporate parent. *Social Poilcy Report, 23*(1), 3–12. https://doi.org/10.1037/e640022011-001

Courtney, M. E., Charles, P., Okpych, N. J., & Halsted, K. (2015). *California Youth Transitions to Adulthood Study (CalYOUTH): Early findings from the child welfare worker survey*. Chicago: Chapin Hall at the University of. https://www.chapinhall.org/wp-content/uploads/CY_CW_RE1214.pdf.

Courtney, M.E., Charles, P., Okpych, N.J., Napolitano, L., & Halsted, K. (2014). *Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of foster youth at age 17*. Chapin Hall at the University of Chicago. https://www.chapinhall.org/research/study-of-youth-in-california-foster-care-at-age-17-reveals-need-for-ongoing-support/.

Courtney, M.E., Okpych, N.J., & Park, S. (2018). *Report from CalYOUTH: Findings on the relationships between extended foster care and youths' outcomes at age 21*. Chapin Hall at the University of Chicago. https://www.chapinhall.org/wp-content/uploads/PDF/Impacts-of-extended-care-age-21.pdf.

Courtney, M.E., Okpych, N.J., & Park, S. (2021). *Report from CalYOUTH: Findings on the relationships between extended foster care and youths' outcomes at age 23*. Chapin Hall at the University of Chicago. https://www.chapinhall.org/wp-content/uploads/Impacts-of-EFC-on-Outcomes-at-age-23.pdf.

Courtney, M. E., & Okpych, N. J. (2017). *Memo from CalYOUTH: Early findings on the relationship between extended foster care and youths' outcomes at age 19. Chapin Hall at the*. Chicago: University of. https://www.chapinhall.org/wp-content/uploads/CY_EF_IB0317.pdf.

Courtney, M. E., Piliavin, I., Grogan-Kaylor, A., & Nesmith, A. (2001). Foster Youth transitions to adulthood: A longitudinal view of youth leaving care. *Child Welfare, 80*(6), 685–717.

Courtney, M.E., Dworsky, A., Brown, A., Cary, C., Love, K., & Vorhies, V. (2011). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 26*.

Courtney, M. E., Okpych, N. J., Charles, P., Mikell, D., Stevenson, B., Park, K., … Feng, H. (2016). *Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of youth at age 19*. https://www.chapinhall.org/wp-content/uploads/CY_YT_RE0516.pdf.

Courtney, M. E., Okpych, N. J., Mikell, D., Stevenson, B., Park, K., Harty, J., … Kindle, B. (2016). *CalYOUTH survey of young adults' child welfare workers*. Chicago: Chapin Hall at the University of. https://www.chapinhall.org/wp-content/uploads/CY_CW_RE0516_1.pdf.

Courtney, M.E., Okpych, N.J., Park, K., Harty, J., Feng, H., Torres-Garcia, A., & Sayed, S. (2018). *Findings from the California Youth Transitions to Adulthood Study (CalYOUTH): Conditions of youth at age 21*. Chicago, IL: Chapin Hall at the University of Chicago. https://www.chapinhall.org/wp-content/uploads/CY_YT_RE0518_1.pdf.

Courtney, M. E., Valentine, E. J., & Skemer, M. (2019). Experimental evaluation of transitional living services for system-involved youth: Implications for policy and practice. *Children and Youth Services Review, 96*, 396–408. https://doi.org/10.1016/j.childyouth.2018.11.031

Delgado, P., Carvalho, J. M. S., & Alves, S. (2022). Children and young people's participation in decision-making in foster care. *Child Indicators Research*. https://doi.org/10.1007/s12187-022-09979-5

Doucet, M. M., Greeson, J. K. P., & Eldeeb, N. (2022). Independent living programs and services for youth "aging out" of care in Canada and the U.S.: A systematic review. *Children and Youth Services Review, 142*, Article 106630. https://doi.org/10.1016/j.childyouth.2022.106630

Elgin, D. J., & Carter, D. P. (2019). Administrative (de)centralization, performance equity, and outcome achievement in rural contexts: An empirical study of U.S. child welfare systems. *Governance, 32*(1), 23–43. https://doi.org/10.1111/gove.12343

Family First Prevention Services Act, Pub. L. No. 115–123 (2018).

Fernandes-Alcantara, A. L. (2021). *John H. Chafee Foster Care Program for Successful Transition to Adulthood*. Congressional Research Service. https://crsreports.congress.gov/product/pdf/IF/IF11070.

Festinger, T. (1983). *No One Ever Asked Us: A Postscript to Foster Care*. Columbia University Press.

Foster Care Independence Act, Pub. L. No. 106–169 (1999).

Freundlich, M., Avery, R. J., & Padgett, D. (2007). Preparation of youth in congregate care for independent living. *Child & Family Social Work, 12*(1), 64–72. https://doi.org/10.1111/j.1365-2206.2006.00444.x

Fryar, G., Jordan, E., & DeVooght, K. (2017). Supporting young people transitioning from foster care: Findings from a national survey. *Child Trends*. https://www.childtrends.org/wp-content/uploads/2017/11/SYPTFC-Findings-from-a-National-Survey-11.29.17.pdf.

Geiger, J. M., & Okpych, N. J. (2022). Connected after care: Youth characteristics, policy, and programs associated with postsecondary education and employment for youth with foster care histories. *Child Maltreatment, 27*(4), 658–670. https://doi.org/10.1177/10775595211034763

General Assembly, U. N. (1989). *Convention on the Rights of the Child*. United Nations.

Government Accountability Office. (2004). *HHS actions could improve coordination of services and monitoring of States' independent living programs* (GAO-05-25). U.S. Government Accountability Office. https://www.gao.gov/assets/gao-05-25.pdf.

Greeson, J. K. P., Garcia, A. R., Tan, F., Chacon, A., & Ortiz, A. J. (2020). Interventions for youth aging out of foster care: A state of the science review. *Children and Youth Services Review, 113*, Article 105005. https://doi.org/10.1016/j.childyouth.2020.105005

Häggman-Laitila, A., Salokekkilä, P., & Karki, S. (2018). Transition to adult life of young people leaving foster care: A qualitative systematic review. *Children and Youth Services Review, 95*, 134–143. https://doi.org/10.1016/j.childyouth.2018.08.017

Havlicek, J. (2021). Systematic review of birth parent–foster youth relationships before and after aging out of foster care. *Children and Youth Services Review, 120*, Article 105643. https://doi.org/10.1016/j.childyouth.2020.105643

Havlicek, J., & Samuels, G. M. (2018). The Illinois State foster youth advisory board as a counterspace for well-being through identity work: Perspectives of current and former members. *Social Service Review, 92*(2), 241–289.

Huang, H., Li, Y., & Campbell, J. M. (2022). Do independent living services protect youth aging out foster care from adverse outcomes? An evaluation using national data. *Child Maltreatment, 27*(3), 444–454. https://doi.org/10.1177/1077559521992119

Hutchcroft, P. D. (2001). Centralization and decentralization in administration and politics: Assessing territorial dimensions of authority and power. *Governance, 14*(1), 23–53. https://doi.org/10.1111/0952-1895.00150

Karoly, L. (2020). Assessing the costs and benefits of LifeSet, the youth villages program model for transition-age youth. *RAND Corporation*. https://doi.org/10.7249/RR2839

Kim, Y., Ju, E., Rosenberg, R., & Farmer, E.(Betsy). M. Z. (2019). Estimating the effects of independent living services on educational attainment and employment of foster care youth. *Children and Youth Services Review, 96*, 294–301. https://doi.org/10.1016/j.childyouth.2018.11.048

Liu, C. (2020). A multi-level analysis of the effects of independent living programs on educational attainment, employment, and housing outcomes of youth aging out of foster care. *Child Welfare, 98*(4), 97–120.

Liu, C., Vazquez, C., Jones, K., & Fong, R. (2019). The impact of independent living programs on foster youths' educational outcomes: A scoping review. *Children and Youth Services Review, 98*, 213–220. https://doi.org/10.1016/j.childyouth.2019.01.006

McCoy, H., McMillen, J. C., & Spitznagel, E. L. (2008). Older youth leaving the foster care system: Who, what, when, where, and why? *Children and Youth Services Review, 30*(7), 735–745. https://doi.org/10.1016/j.childyouth.2007.12.003

Montgomery, P., Donkoh, C., & Underhill, K. (2006). Independent living programs for young people leaving the care system: The state of the evidence. *Children and Youth Services Review, 28*(12), 1435–1448. https://doi.org/10.1016/j.childyouth.2006.03.002

Mosley, J. E., & Courtney, M. E. (2012). *Partnership and the Politics of Care: Advocates' Role in Passing and Implementing California's Law to Extend Foster Care* (p. 34). Chicago: Chapin Hall at the University of.

Nybell, L. M. (2013). Locating "youth voice:" Considering the contexts of speaking in foster care. *Children and Youth Services Review, 35*(8), 1227–1235. https://doi.org/10.1016/j.childyouth.2013.04.009

Okpych, N. J. (2015). Receipt of independent living services among older youth in foster care: An analysis of national data from the U.S. *Children and Youth Services Review, 51*, 74–86. https://doi.org/10.1016/j.childyouth.2015.01.021

Okpych, N. J., Park, S., Powers, J., Harty, J. S., & Courtney, M. E. (2023). Relationships That Persist and Protect: The Role of Enduring Relationships on Early-Adult Outcomes among Youth Transitioning Out of Foster Care. *Social Service Review*. https://doi.org/10.1086/724736

Omnibus Budget Reconciliation Act Of 1993, Pub. L. No. 103–66 (1993).

Park, S., Okpych, N. J., & Courtney, M. E. (2020). Predictors of remaining in foster care after age 18. *Child Abuse & Neglect, 108*. https://doi.org/10.1016/j.chiabu.2020.104629

Park, S., Okpych, N. J., Harty, J. S., & Courtney, M. E. (2022). County-level factors matter: The role of contextual factors in foster youths' extended foster care participation and human capital outcomes. *Child Maltreatment, 10775595221088226*. https://doi.org/10.1177/10775595221088226

Park, S., Powers, J., Okpych, N. J., & Courtney, M. E. (2020). Predictors of foster youths' participation in their transitional independent living plan (TILP) development: Calling for collaborative case plan decision-making processes. *Children and Youth Services Review, 115*, 105051. https://doi.org/10.1016/j.childyouth.2020.105051

Park, S., Powers, J., Okpych, N. J., & Courtney, M. E. (2021). Co-production of care leavers' transition planning as young adults: An analysis of young people in California foster care. *The British Journal of Social Work, 52*(6), 3385–3405. https://doi.org/10.1093/bjsw/bcab252

Petr, C. G. (2008). Foster care independent living services: Youth perspectives. *Families in Society, 89*(1), 100–108. https://doi.org/10.1606/1044-3894.3714

Preventing Sex Trafficking And Strengthening Families Act, Pub. L. No. 113–183 (2014).

Pryce, J., Napolitano, L., & Samuels, G. M. (2017). Transition to adulthood of former foster youth: Multilevel challenges to the help-seeking process. *Emerging Adulthood, 5*(5), 311–321. https://doi.org/10.1177/2167696816685231

Richardson, S. M., & Yates, T. M. (2019). Characterizing communication between transition-aged foster youth and their social workers. *Journal of Social Work, 19*(3), 372–396. https://doi.org/10.1177/1468017318762093

Rosenberg, R., & Kim, Y. (2018). Aging out of foster care: Homelessness, post-secondary education, and employment. *Journal of Public Child Welfare, 12*(1), 99–115. https://doi.org/10.1080/15548732.2017.1347551

Salazar, A. M., Spiers, S. S., Bennett, M., & Haggerty, K. P. (2023). Fostering higher education: Preliminary findings from a small randomized pilot study. *Children and Youth Services Review, 150*, Article 106991. https://doi.org/10.1016/j.childyouth.2023.106991

Smith, S. R. (2002). Privatization, Devolution, and the Welfare State: Rethinking the Prevailing Wisdom. In B. Rothstein, & S. Steinmo (Eds.), *Restructuring the Welfare State: Political Institutions and Policy Change* (pp. 78–101). Palgrave Macmillan US. https://doi.org/10.1007/978-0-230-10924-7_4.

U.S. Department of Health & Human Services. (2013). *Multi-Site Evaluation of Foster Youth Programs (Chafee Independent Living Evaluation Project)*. https://www.acf.hhs.gov/opre/project/multi-site-evaluation-foster-youth-programs-chafee-independent-living-evaluation.

White, I. R., Royston, P., & Wood, A. M. (2011). Multiple imputation using chained equations: Issues and guidance for practice. *Statistics in Medicine, 30*(4), 377–399. https://doi.org/10.1002/sim.4067