CHANGING THE WORLD AND CHANGING YOURSELF: ASSOCIATIONS BETWEEN TRAITS, SKILLS, AND CIVIC ENGAGEMENT DURING ADOLESCENCE AND EMERGING ADULTHOOD

BY

MADISON N. SEWELL

DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Educational Psychology
in the Graduate College of the
University of Illinois Urbana-Champaign, 2024

Urbana, Illinois

Doctoral Committee:

Associate Professor Christopher M. Napolitano, Chair
Assistant Professor Aixa D. Marchand
Assistant Professor Kaylin Ratner
Professor Brent W. Roberts

ABSTRACT

Youths' civic engagement is critical for healthy democracies and can be a powerful force for social change. However, there is little integration across the literature regarding the personality traits and social, emotional, and behavioral (SEB) skills that are critical for youth's civic engagement. In addition, there is a gap in understanding how engaging in a variety of civic and political activities may engender change in traits and SEB skills. The purpose of this dissertation was to explore how adolescents' and emerging adults' personality traits and SEB skills can inform and can be cultivated by their engagement in civic and political activities. This question was explored through a theoretical review and integration of the literature (Study 1), a quasi-experimental study (Study 2), and an intensive longitudinal study (Study 3). Findings from this dissertation suggest that the full spectrum of personality traits and SEB skills are important for understanding youth civic engagement. In addition, findings indicate that simply engaging in civic and political activities doesn't necessitate positive trait or skill development and the context of these experiences may be especially important for understanding subsequent trait and skill change. These findings have implications for both future developmental research, applied programs, and interventions.

ACKNOWLEDGEMENTS

There are many people that made the completion of this dissertation possible. I want to first thank my parents— Kenneth and Stacey— for their love and for shaping me into the person I am today. My mom is the hardest-working person I've ever met, and I've always tried to be just like her. I would not be here if it weren't for her example, advice, and unwavering support of my academic pursuits. My dad constantly inspires me to be curious about the world around me, and I'm so grateful for his encouragement and regular phone calls.

I would like to thank my advisor, Dr. Chris Napolitano, for his incredible guidance and mentorship. Chris has been there for me from SEM model convergence issues to teaching dilemmas and everything in between. I am so grateful for his support over the last five years. I would also like to thank Dr. Aixa Marchand, Dr. Kaylin Ratner, and Dr. Brent Roberts for their feedback on this dissertation and for their professional mentorship. I've sincerely appreciated their support on important milestones in my PhD, their feedback on manuscripts, their introductions to colleagues at conferences, and their insights on navigating the academic job market. I also appreciate the mentorship and support I've received from the other two members of the BESSI lab—Dr. Chris Soto and Heejun Yoon. Our biweekly meetings, summer retreats, and shared projects have helped me develop invaluable skills and expertise that have prepared me well for my future career.

Several other people have helped me in completing my PhD. I would like to thank Dr. Michelle Perry and Dr. Jessica Gladstone for their support and feedback on my work. I am grateful to #DevSciBestSci—Taiylor Rayford, Amos Jeng, Shiyu Sun, Jerny Walls, Hou Xie, AJ Espinoza, Kate Curry, Dr. Bethany Hoff, Dr. Ananya Tiwari, and Dr. Sanchari Banerjee. I am honored to call you all my colleagues and friends. I also could not have completed this

dissertation without Erin Budesheim and Gabby Drong. Thank you for being incredible research partners, co-teachers, and friends. I would also like to acknowledge and thank my remarkable undergraduate research assistants— Jaime Shields and Natalia Palafox Burbano— for being by my side since the beginning and for making this research possible.

I would have never pursued a PhD if it weren't for the encouragement of my professors at the University of Central Arkansas and the research preparation that I had through the Norbert O. Schedler Honors College. I would especially like to thank Dr. Allison Wallace for holding me to high academic standards, for recommending opportunities that helped me grow as an educator, for loaning me books, and for planting the idea of PhD in my head when I had never considered that path for myself. I would also like to thank Dr. Jennifer Brinegar, Dr. Kristie Hicks, Dr. Rick Tarkka, Dr. Rick Scott, Dr. Ken Sobel, and Chad Terrell for their guidance and support in my professional development.

Finally, I would like to thank George Watson and our pets, Bella and Cinny, for supporting me throughout this process. George has been the best person to talk through my ideas with and has done so many little things to help get me through the hardest parts of graduate school. I am so grateful for his sharp intellect, his energy, his love, and his support. Thank you for celebrating every single milestone (big and small) with me. Cinny has been by my side, or in my lap, from zoom classes during my first year of graduate school to practicing my dissertation defense in these final weeks. Bella brightens my day every day and shows me unconditional love and affection. I am grateful for her calming presence and her reminders to get outside and enjoy the simple things in life. Thank you all for your support.

To all the politically engaged young people who have and will continue to pave the way forward

TABLE OF CONTENTS

CHAPTER 1: EXECUTIVE SUMMARY

A critical developmental task during the transition from adolescence to adulthood is becoming an engaged citizen (Flanagan & Levine, 2010), but some research suggests that sizable percentage of adolescents and emerging adults are not civically or politically engaged (Snell, 2010; Wray-Lake et al., 2014). This finding has motivated scholars to understand the psychological antecedents of youth[1] civic engagement. This work has explored youths' beliefs (e.g., Alvis & Metzger, 2020; Dull et al., 2021; Metzger et al., 2019; Oosterhoff et al., 2018), critical consciousness (e.g., Diemer & Rapa, 2016; Hope & Bañales, 2019; May et al., 2022; Watts et al., 2011), motivations (e.g., Ballard, 2014; Carlo et al., 2005; Moore et al., 2014; Yazdani et al., 2022), developmental competencies (e.g., Metzger et al., 2018; Obradović & Masten, 2007), and character strengths (e.g., Metzger et al., 2016; Oosterhoff, Whillock, et al., 2021). Civic engagement has also been associated with a host of positive developmental outcomes including improved academic performance, more years of education, better health, and better well-being (Ballard et al., 2019; Ballard & Syme, 2016; Chan et al., 2014; Hart et al., 2014; Seider et al., 2020; Wray-Lake, DeHaan, et al., 2019; Wray-Lake, Shubert, et al., 2019). Thus, the personal qualities of youth may inform and be cultivated by their civic engagement.

The purpose of this work was to investigate the relationships between youth civic engagement and two types of personal qualities— personality traits and social, emotional, and behavioral (SEB) skills— that have largely been unexplored in the youth civic engagement literature. Personality traits are characteristic patterns of thinking, feeling, and behaving across situations and can be understood as someone's *tendencies* for behaviors. SEB skills help

[1] I use the term "youth" as a shorthand for adolescents and emerging adults throughout this dissertation.

individuals maintain social relationships, regulate emotions, and manage goal- and learning-directed behaviors and, in contrast to personality traits, can be understood as someone's *functional capacities* for behaviors. Both what youth *tend to do* and what they *can do* may inform their civic and political activities, and engaging in these activities cultivate trait and skill development.

Three questions guided this investigation: 1) How are personality traits and SEB skills related to different facets of civic engagement during adolescence and emerging adulthood? 2) Does civic engagement predict change in personality traits and SEB skills? 3) What are the bidirectional associations between (a) personality traits and civic engagement and (b) SEB skills and civic engagement? These questions were explored across a theoretical review and integration of the literature (Study 1), a quasi-experimental study (Study 2), and a longitudinal study (Study 3).

In Study 1, I reviewed the robust, but disconnected, literature on the personal qualities that are associated with adolescent and emerging adult civic engagement and argued that a five-factor framework that differentiates between personality traits and SEB skills can organize and integrate this literature. In addition, I argue that the five-factor trait and skill framework is particularly well-poised to answer critical questions about the development of civic engagement during adolescence and emerging adulthood.

Study 2 utilized two waves of data from two groups of college students: 1) a group engaged in campus-based volunteering and 2) a comparison group of students who were not actively volunteering. Results from this study indicate that higher levels of social engagement skills, cooperation skills, innovation skills, extraversion, agreeableness, and openness to experience are associated with higher levels of prosocial civic behaviors and political behaviors.

In addition, highly skilled and more conscientious students participated in campus-based volunteering, but students engaged in volunteering experienced declines in their cooperation skills, extraversion, and openness to experience across the study duration.

Study 3 utilized data from college students who completed biweekly surveys on their SEB skills, personality traits, informal helping, volunteering, and activism. Results indicated that there were between-person effects linking all SEB skills and all personality traits— except for emotional stability— to all civic activities. There were also within-person effects linking SEB skills to every civic activity, agreeableness to activism, and emotional stability to informal helping. Furthermore, there was a bidirectional within-person effect such that youth who engaged in more in-person activism, relative to their own average, reported higher levels of emotional resilience skills, relative to their own average, in subsequent weeks, and higher levels of emotional resilience skills, relative to their own average, predicted more in-person activism, relative to their own average, in subsequent weeks.

Taken together, this dissertation advances our understanding of the associations among personality traits, SEB skills, and civic engagement during adolescence and emerging adulthood and supports two key conclusions. First, the five factors underlying personality traits and SEB skills support youths' civic engagement, and prosocial civic, standard political, and activism-related activities have distinct associations with specific personality traits and SEB skills. Second, simply engaging in civic and political activities over the course of a semester doesn't necessitate positive trait or skill development and the context of these experiences may be more important for understanding subsequent trait and skill change.

CHAPTER 2: AN INTEGRATIVE FRAMEWORK OF THE PERSONAL QUALITIES ASSOCIATED WITH YOUTH CIVIC AND POLITICAL PARTICIPATION

Adolescents and emerging adults are frequently stereotyped as disinterested and disengaged from politics and community affairs. However, in recent years, the political and civic engagement of young people has made national headlines. In 2018, 18-year-old X González became the face of March for Our Lives and an advocate for gun control, and 15-year-old Greta Thunberg began protesting for climate change and addressed the United Nations Climate Change Conference. In 2022, 18-year-old Jaylen Smith was elected mayor of Earle, Arkansas, becoming the youngest Black mayor in American history.

These contemporary examples are not anomalies of the modern age. Young people have always been at the forefront of social change. However, research also indicates that many youth[2] are disengaged from civic life (Snell, 2010; Wray-Lake et al., 2014). What differentiates X González, Greta Thunberg, and Jaylen Smith from their peers who are not as politically and civically engaged? Two strands of research have sought to investigate the antecedents, processes, and consequences of youth civic engagement. The first approach emphasizes the importance of contextual factors, including family, peers, schools, community, opportunity structures, and broader macrolevel forces such as systemic racism. The second approach emphasizes individual-level factors, including motivation, values, beliefs, character strengths, developmental competencies, and other personal qualities. The two approaches are not in opposition but rather complement each other. That is, given particular contextual factors, certain personal qualities prime youth to engage in their communities and help them accomplish their civic goals.

[2] I use the term "youth" as a shorthand for adolescents and emerging adults throughout the manuscript.

This manuscript is guided by two aims. The first is to summarize and integrate the literature on the personal qualities associated with adolescent and emerging adults' civic engagement. This literature draws on research across developmental, community, personality, political, and positive psychology. The second aim is to provide a roadmap for future research on the study of the personal qualities implicated in understanding youth civic engagement. Here, I argue that a five-factor framework, derived from contemporary models of personality and social, emotional, and behavioral skills (e.g., John et al., 2008; Soto et al., 2022a), can organize the myriad of personal qualities associated with youth civic engagement. In addition, I argue that research with this framework should explicitly assess both *traits*, what youth tend to do, and *skills*, what they are capable of. Finally, I propose future directions for research on the personal qualities associated with youth civic engagement, including a focus on 1) multidimensionality, 2) specificity, 3) bidirectionality and reciprocity, 4) developmental processes with environmental factors, and 5) trait and skill interactions with other individual-level factors such as beliefs, knowledge, motivation, values, and attitudes.

The first section of this manuscript defines civic participation and two different approaches to understanding the personal qualities that promote civic participation: 1) personality traits, and 2) social, emotional, and behavioral (SEB) skills. The second section describes how a five-factor framework that distinguishes between personality traits and SEB skills can synthesize research that links a variety of self-regulatory, social, emotional, and sociocognitive qualities to youth civic engagement. The final section charts future directions for researching personal qualities and adolescent and emerging adult civic engagement.

Section 1: Conceptual Foundations

Youth Civic and Political Engagement

Understanding how young people become engaged in the broader community is critical for society. Engaged citizens promote democracy, advance human rights, and care for their communities. The developmental period of adolescence and emerging adulthood is particularly important because civic participation during this time establishes participation patterns that extend into adulthood (Chan et al., 2014; Flanagan & Levine, 2010; Finlay et al., 2010). Civic engagement during adolescence and emerging adulthood is also related to several concurrent and prospective positive developmental outcomes for youth including better physical and mental health, greater life satisfaction, higher socioeconomic status, and higher levels of academic achievement and educational attainment (Ballard et al., 2019; Ballard & Syme, 2016; Chan et al., 2014; Hart et al., 2014; Moorfoot et al., 2015; Seider et al., 2020; Wray-Lake, DeHaan, et al., 2019; Wray-Lake, Shubert, et al., 2019). Civic engagement has traditionally been defined in terms of behaviors such as volunteering or voting, but recent definitions have included knowledge, values, and a broader array of behaviors that constitute prosocial and political contributions to community and society (Sherrod & Lauckhardt, 2009; Wray-Lake, Metzger, et al., 2017). Furthermore, many of these newer definitions have included the "civic skills" necessary for participation in society, but these civic skills have not always been clearly defined. The purpose of this work is to draw attention to this underexplored facet of youth civic engagement and provide a unifying framework for understanding these skills.

Civic Participation as a Multidimensional Construct

To understand the role that personality traits and SEB skills play in civic and political development, I focus this review on youths' civic and political behaviors— or what I term *civic*

participation. Civic participation can vary in its scope from the macro-level (e.g., international or national) to the micro-level (e.g., a school or neighborhood) and from the personal sphere (e.g., political discussion with friends) to the public sphere (e.g., participating in a protest). Civic participation also spans distinct but related political and civic domains and can best be understood and studied as a multidimensional construct constituted by specific facets (Amnå, 2012; Sherrod & Lauckhardt, 2009; Wray-Lake, Metzger, et al., 2017).

This multidimensional approach to the study of civic participation has two key advantages. For one, facets of civic participation vary in their degree of interrelation (Metzger et al., 2019). For example, prosocial civic behaviors such as volunteering are often weakly associated or not associated at all with political behaviors during adolescence and emerging adulthood (Cohen & Chaffee, 2013; Obradović & Masten, 2007; Walker, 2002). In addition, youth's political participation can be differentiated according to whether it operates within or outside of existing political and institutional structures (Amnå, 2012; Kornbluh et al., 2022; Watts & Flanagan, 2007). Voting, joining political clubs, contacting representatives, and working on campaigns exemplify standard political behaviors that work within existing political and institutional structures. Activism-related activities such as protesting, boycotting, buycotting, and civil disobedience attempt to challenge these structures and promote social change, and thus, can largely be categorized as existing outside of formal structures.

The second advantage to conceptualizing civic participation as multidimensional is that it allows for clarity on what factors promote which facet of civic engagement for which youth and how different forms of civic participation differentially predict consequential developmental outcomes (Sherrod & Lauckhardt, 2009; Wray-Lake, Metzger, et al., 2017). Adolescents and emerging adults demonstrate differing patterns of civic participation depending on their

experiences, knowledge, and interests as well as the opportunities and constraints in their environment (Anyiwo et al., 2020; Cohen & Chaffee, 2013; Hope & Jagers, 2014; Watts & Flanagan, 2007; Wray-Lake & Sloper, 2016). Furthermore, facets of civic engagement also a) follow different developmental trajectories (Wray-Lake et al., 2020), b) have different contextual and individual antecedents (Metzger et al., 2018, 2019; Sherrod & Lauckhardt, 2009; Torney-Purta et al., 2004; Wray-Lake & Sloper, 2016), and c) different developmental consequences in terms of educational attainment, health, and well-being outcomes in adulthood (Ballard et al., 2019).

There are also important sociodemographic differences in the frequency and developmental trajectories of certain civic activities (Kornbluh et al., 2022; Sherrod & Lauckhardt, 2009; Wray-Lake et al., 2020; Wray-Lake, Schulenberg, et al., 2017; Wray-Lake & Sloper, 2016). The antecedents of these sociodemographic differences are rooted in systems of oppression, dominant ideologies, and laws and policies which characterize the macrosystems of human development. For example, gender differences in civic actions such as volunteering are likely a consequence of gender socialization processes through which girls are socialized to be more prosocial than boys (Sherrod & Lauckhardt, 2009). Racial and ethnic differences in civic participation reflect the historical and contemporary structural inequities that disenfranchise and marginalize people of color (Anyiwo et al., 2020; Watts & Flanagan, 2007). A multidimensional approach best represents the myriad expressions of adolescents and emerging adults' civic participation.

Approaches to Studying the Development of Civic Participation

Adolescent and emerging adults' civic participation is usually viewed positively by both researchers and practitioners, and research is typically approached through a positive youth

development lens (Amnå, 2012; Lerner et al., 2014; Sherrod & Lauckhardt, 2009; Watts & Flanagan, 2007). The positive youth development framework is grounded in the relational developmental systems metatheory which emphasizes the importance of dynamic youth-context interactions, plasticity in development, and the agency of youth in shaping their own development (Lerner et al., 2014, 2015). Significant developmental research has explored how a variety of ecological assets foster civic participation (Anyiwo et al., 2018; Quintelier, 2015; Rossi et al., 2016; Torney-Purta, 2002; Wray-Lake et al., 2016; Wray-Lake & Sloper, 2016; Zaff et al., 2008). Some examples of these ecological assets include political discussions with parents (e.g., Diemer, 2012), peer connectedness (e.g., Oosterhoff, Alvis, et al., 2021), and equitable school climate and democratic classroom practices (e.g., Jagers et al., 2017; Torney-Purta et al., 2007).

To further ground research on youth civic participation in developmental theory, I argue that significant attention should also be paid to the psychological attributes that young people bring to these contexts. This argument is not to undermine or devalue the important work that has been done in understanding contextual factors that promote youths' civic and political involvement. Rather, the intentional study of psychological attributes is critical in answering fundamental questions such as who becomes civically and politically involved, given particular ecological assets, and what are psychological consequences of that participation. The interaction between the psychological strengths of young people and their environment constitutes the unit of analysis for understanding the development of civic and political participation across adolescence and emerging adulthood (Lerner et al., 2014).

Personal Qualities

Scholars and educators have expressed concern for the development and measurement of the competencies that are prerequisite to prosocial, standard political, and activism-related behaviors (CIRCLE, 2010; Jagers et al., 2019; Kirlin, 2003; Youniss et al., 2002). In recent years, important theoretical and empirical work has connected several developmental competencies to adolescent and emerging adults' civic engagement, but there is no consensus across this literature. In the following subsections, I define two types of personal qualities, personality traits and SEB skills, their links to important developmental outcomes, and their theoretical connection to youth civic engagement.

Personality Traits

Personality traits capture characteristic patterns of thinking, feeling, and behaving across situations (Roberts & Yoon, 2022). In other words, personality traits are what someone *tends to do*. One of the most utilized frameworks for the study of personality traits is the Big Five Taxonomy, which organizes traits among the dimensions of extraversion (sociable and energetic vs. reserved and cautious), agreeableness (compassionate and trusting vs. callous and suspicious), conscientiousness (thorough and responsible vs. careless and irresponsible), negative emotionality (anxious and self-doubting vs. calm and self-assured), and openness to experience (inquisitive and creative vs. pragmatic and conventional) (John et al., 2008).

Importantly, despite connotations of being fixed and research indicating relative stability across situations, personality traits do change, and they are changeable. Personality traits demonstrate systematic, mean-level change with youth becoming more agreeable, conscientious, and emotionally stable into emerging adulthood (Bleidorn, 2015; Ringwald et al., 2023). Beyond normative developmental changes, youths' life experiences also engender personality change.

For example, investing more effort into doing homework is associated with gains in conscientiousness during early adolescence (Göllner et al., 2017), and first romantic relationship experiences are associated with personality change during emerging adulthood (Wagner et al., 2015).

Research on personality traits has also indicated that what youth tend to do matters (Soto & Tackett, 2015). For example, high levels of conscientiousness are consistently linked to academic achievement (Mammadov, 2022; Poropat, 2009), lower levels of negative emotionality is associated with better mental health and well-being (Ozer & Benet-Martínez, 2006), agreeableness and extraversion are associated with peer acceptance and friendships (Ozer & Benet-Martínez, 2006), and higher levels of openness to experience is associated with obtaining a college degree (Beck & Jackson, 2022).

Though there is not much research on how the Big Five personality traits relate to youth civic and political participation, political scientists have called attention to the contribution of adults' traits to their political participation, particularly in terms of trait interactions with environmental factors and other individual-level variables such as beliefs (Gerber et al., 2011; Mondak et al., 2010; Vecchione & Caprara, 2009). Research with adults suggests that agreeableness is associated with prosocial civic behaviors like volunteering, openness to experience is associated with conventional and social-justice-related political behaviors such as voting, activism, and contributing money and working for a political party/campaign, and extraversion is associated with prosocial civic behaviors, conventional political behaviors, and activism (Ackermann, 2019; Beck & Jackson, 2022; Brandt et al., 2022; Furnham & Cheng, 2019; Mondak et al., 2010; Omoto et al., 2010; Stahlmann et al., 2023).

It is likely that personality traits act as a selection effect for who becomes involved when there is an opportunity to engage with the community during adolescence and emerging adulthood. Youth who tend to behave in certain ways likely seek out contexts to engage in those behaviors. For example, more extraverted youth may be more likely to become politically and civically involved because they can interact with others through volunteering, working on a campaign, going to community meetings, or participating in activism. Youth who have high levels of openness to experience may also be more drawn to new experiences and opportunities that allow them to think about abstract topics like political and social issues.

Beyond selection effects, personality development happens in conjunction with identity development and the transition to adult roles— two defining features of adolescence and emerging adulthood (Hill & Edmonds, 2017; Roberts & Wood, 2006). Developmental theorists have frequently highlighted the importance of developing a civic identity during adolescence and emerging adulthood (Flanagan, 2003). For some youth, personality development is likely reciprocally associated with the exploration of civic identities and the transition to citizenship. Core to identity development is deciding who you want to become and engaging in behaviors that support coherence with that identity. Youth who desire to become active citizens will likely change their behaviors to match their self-conception as active citizens, and important others will likely begin to view them and respond to them as a contributing member of the community (Roberts & Wood, 2006). Psychological investment in social roles, such as spouse, parent, and employee, promote identity development and are also a major source of personality change (Bleidorn et al., 2013; Lodi-Smith & Roberts, 2007). No matter whether it is through selection effects or socialization effects, consistently engaging in civic behaviors likely contributes to youths' burgeoning civic identity and could potentially lead to subsequent personality change.

Social, Emotional and Behavioral Skills

Social, emotional, and behavioral (SEB) skills are a person's capacities to maintain social relationships, regulate emotions, and manage goal- and learning-directed behaviors (Soto et al., 2021). In other words, SEB skills represent individuals' functional capacities or what they are *capable of* when the situation calls for it. SEB skills have been hypothesized to be particularly important during adolescence because the biological and cognitive transitions during this developmental period make certain SEB skills newly possible, and navigating the developmental tasks of adolescence requires SEB skills (Napolitano et al., 2021). Because of their importance in the lives of young people, scholars across the fields of education, economics, and psychology have sought to operationally define SEB skills. This work has produced over 100 different frameworks to understand the structure, function, development, and correlates of SEB skills (Berg et al., 2017).

Although there is a dizzying number of SEB skill frameworks to choose from, many share similar psychological content with the Big Five personality traits (Abrahams et al., 2019; Napolitano et al., 2021; Primi et al., 2019; Soto et al., 2021; Walton et al., 2021). In fact, recent taxometric work on the Behavioral, Emotional, and Social Skills Inventory (BESSI) demonstrated a hierarchical, five-domain structure in which specific SEB skill facets converged and defined five domains: 1) Social engagement skills that are used to actively engage with other people (cf. extraversion), 2) Cooperation skills that are used to maintain positive social relationships (cf. agreeableness), 3) Self-management skills that are used to effectively pursue goals and complete tasks (cf. conscientiousness), 4) Emotional resilience skills that are used to regulate emotions and moods (cf. negative emotionality), and 5) Innovation skills that are used to engage with novel ideas and experiences (cf. openness) (Soto et al., 2022a).

Research on SEB skills is relatively new compared to the Big Five, but emerging empirical evidence suggests that strength in SEB skills during adolescence is associated with higher levels of academic engagement and achievement, better well-being and physical health, and higher quality relationships (Guo et al., 2022; Kautz et al., 2014; Soto et al., 2022a, 2022b). In addition, SEB skills and personality traits are not redundant. Initial evidence of convergent and discriminant validity of SEB skills with Big Five personality traits suggests that SEB skills are related but distinguishable from traits (Lechner et al., 2022; Soto et al., 2022a). SEB skills also provide incremental validity over personality traits when predicting academic engagement, peer acceptance, peer and parent relationship quality, well-being, and prosocial, stand political, and activism-related actions during adolescence (Soto et al., 2022b). In addition, SEB skills contribute unique variance, beyond personality traits, when predicting outcomes in challenging contexts, including standardized testing and performance in social role-playing exercises (Breil et al., 2022; Soto et al., 2023; Yoon et al., 2024).

This research suggests that what youth are capable of matters for their thriving and civic participation, beyond what they tend to do. Furthermore, SEB skills may be particularly important for understanding adolescents' and emerging adults' civic activities, as participation in the broader community often arises from novel or challenging contextual demands. For example, emerging adults who reported greater COVID-19-related stressors also reported higher levels of activism (Kornbluh et al., 2022). With new contextual demands, youth may act in ways they might not tend to, so they can "meet the moment" and improve their communities (Soto et al., 2021; Napolitano et al., 2024).

Section 2: An Organizing Framework for Studying Personal Qualities and Youth Civic Engagement

There has been no work to date that integrates the findings across the literature linking youth's personal qualities to civic and political participation. This might be because researchers use different terminology when referring to these qualities such as "competencies" (Metzger et al., 2018) and "character strengths" (Metzger et al., 2016; Oosterhoff, Whillock, et al., 2021). Other research has focused on specific constructs such as empathy (e.g., Silke et al., 2021) or emotion regulation (e.g., Riley et al., 2021). In this section, I argue that competencies, character strengths, and prominent "standalone" constructs such as empathy and emotion regulation can be organized across five factors and two dimensions (i.e., trait/skill), corresponding to the Big Five personality traits and the SEB skill domains in the BESSI (Soto et al., 2022a). Table 1 organizes findings from the literature across this five-factor trait and skill framework.

Table 1

Constructs Theoretically or Empirically Associated with Youth Civic Engagement Span Five Domains

Conscientiousness Self-Management Skills	Extraversion Social Engagement Skills	Agreeableness Cooperation Skills	Negative Emotionality Emotional Resilience Skills	Openness to Experience Innovation Skills
Organization (Kirlin, 2003) Planning (Wray-Lake, Metzger, et al., 2017) Responsibility (Metzger et al., 2016) Self-control (Gülseven et al., 2023) Self-regulation (Hardy et al., 2015; Le et al., 2022; Lerner et al., 2014) Self-management skills (Soto et al., 2022b)	Communication (Kirlin, 2003; Shah et al., 2009; Wray-Lake, Metzger, et al., 2017) Extraversion (Eisenberg et al., 2009; Moore et al., 2014) Leadership (Metzger et al., 2016) Social engagement skills (Soto et al., 2022b)	Agreeableness (Carlo et al., 2005) Collective decision-making (Kirlin, 2003) Cooperation skills (Soto et al., 2022b) Cooperative problem solving (Youniss et al., 2002) Empathy (Metzger et al., 2018; Wray-Lake & Syvertsen, 2011) Generosity (Metzger et al., 2016) Perspective-taking (Sewell et al., 2023; Silke et al., 2021) Trust (Flanagan, 2003; Torney-Purta et al., 2004)	Anger (Anyiwo et al., 2020; Wray-Lake et al., 2018) Emotion regulation (Metzger et al., 2018; Riley et al., 2021; Wray-Lake & Syvertsen, 2011) Stress (Anyiwo et al., 2020; Hope et al., 2022) Stress regulation (Sewell et al., 2023)	Abstract thinking (Sewell et al., 2023; Wray-Lake & Syvertsen, 2011) Critical thinking (Kirlin, 2003; Youniss et al., 2002) Critical reflection (Heberle et al., 2020; Kornbluh et al., 2022; Le et al., 2022; Watts et al., 2011; Watts & Flanagan, 2007) Curiosity (Clark & Seider, 2020) Future-mindedness (Metzger et al., 2016, 2018; Oosterhoff, Whillock, et al., 2021) Information processing (Wray-Lake & Syvertsen, 2011) Innovation skills (Soto et al., 2022b) Prosocial moral reasoning (Metzger et al., 2018)

Conscientiousness / Self-Management Skills and Civic Participation

Conscientiousness and self-management skills undergird an individual's goal pursuit, task completion, and dependability. Facets of conscientiousness and self-management include tendencies and capacities to make well-reasoned decisions; do careful, thorough, and consistent work; fulfill promises, commitments, and obligations; control impulses; and follow rules and norms. Adolescents' self-regulatory capacities have been theorized to be important for understanding the development of civic engagement (Lerner et al., 2014), and scholars have identified constructs related to conscientiousness and self-management (e.g., "making a plan to address a problem" and "organization") as civic skills (Kirlin, 2003; Wray-Lake, Metzger, et al., 2017).

Cross-sectional work has indicated that adolescents' self-reported self-regulation capacities are related to both self-reports and parents' reports of adolescent prosocial civic behaviors, standard political participation, and activism (Hardy et al., 2015; Le et al., 2022). One longitudinal study has indicated that better self-control skills during childhood predict voting during young adulthood and greater prosociality during adolescence, which, in turn, predicted subsequent volunteering, involvement in environmental causes, and engagement in political and social action groups during young adulthood (Gülseven et al., 2023). Another longitudinal study similarly indicated that increases in conscientiousness are associated with increases in prosocial behavior across adolescence and into emerging adulthood (Luengo Kanacri et al., 2014). Research also indicates that children and adolescents view responsibility as important for participation in a variety of civic and political activities (Metzger et al., 2016). Finally, adolescents' self-management skills are associated with higher levels of informal helping (Soto et al., 2022b). Taken together, these findings suggest that conscientiousness- and self-

management-related-competencies may be important for understanding youths' civic and political engagement.

Extraversion / Social Engagement Skills and Civic Participation

Extraversion and social engagement skills underpin sociability, assertiveness, and energy. Facets of extraversion and social engagement include individuals' tendencies and capacities to express themselves, engage in dialogue, persuade others, lead groups of people, and channel their energy in productive ways. Extraversion has been hypothesized to be strongly associated with civic engagement because social interactions are inherent to many civic and political activities (Mondak et al., 2010). Other scholars have drawn parallels between social and communication skills to civic skills (Kirlin, 2003; Obradović & Masten, 2007; Shah et al., 2009). For example, Wray-Lake, Metzger, and colleagues (2017) include three items related to communication in their six-item measure of civic skills: 1) Get other people to care about a problem, 2) Express my views to others in-person or in writing, and 3) Contact someone in a leadership position about a problem.

In empirical research, extraversion positively predicts volunteering during adolescence and emerging adulthood (Eisenberg et al., 2009; Moore et al., 2014), and social engagement skills predict adolescents' voting intentions, activism, and volunteerism (Soto et al., 2022b). Adolescents and children have also described individuals engaged in protesting as leaders (Metzger et al., 2016), suggesting leadership tendencies and capacities may be important for understanding social-movement-related political behaviors. In summary, extraversion and social engagement skills may support a variety of civic and political behaviors.

Agreeableness / Cooperation Skills and Civic Participation

Agreeableness and cooperation skills support the development of positive social relationships. Facets of agreeableness and cooperation include tendencies and capacities to understand how other people may think or feel, get along with others, trust and forgive others, and work as part of a team. Empathy is speculated to be precursor to social responsibility (Wray-Lake & Syvertsen, 2011) and has been linked to prosocial behavior towards strangers during early adolescence and increases in prosocial behaviors across adolescence (Padilla-Walker & Christensen, 2011; Van der Graaff et al., 2018). Among children and adolescents, higher levels of empathy have been linked to higher levels of informal helping, environmental behavior, volunteering, and voting intentions and more positive beliefs towards political involvement (Metzger et al., 2018). Perspective-taking skills also predicted college students' volunteering during the COVID-19 pandemic (Sewell et al., 2023). One systematic review also suggests that the relationship between ecological assets— such as parent's civic engagement, peer's prosocial norms, and open classroom climates— and youth civic engagement is mediated by youth's perspective-taking capacities (Silke et al., 2021).

Youth civic engagement research emphasizes the importance of other facets of agreeableness and cooperation as well. For example, higher levels of trust— in terms of both individuals and institutions— differentiates youth who are civically and politically engaged from those who are not (Flanagan, 2003; Torney-Purta et al., 2004), collective decision making and cooperative problem solving have been identified as civic skills (Kirlin, 2003; Youniss et al., 2002), and children and adolescents view individuals engaged in volunteering as being generous (Metzger et al., 2016). Finally, higher levels of agreeableness are associated with college students' volunteering (Carlo et al., 2005), and higher levels of cooperation skills are associated

with adolescents' civic organizational involvement and informal helping (Soto et al., 2022b). These findings suggest that agreeableness and cooperation skills may be particularly important for understanding prosocial civic behaviors and standard political behaviors.

Negative Emotionality / Emotional Resilience Skills and Civic Engagement

Negative emotionality consists of individuals' tendencies to feel anxious, depressed, and emotionally volatile. Emotional resilience skills help individuals modulate positive emotions such as confidence and optimism and negative emotions such as anger and stress. Emotion regulation skills have been hypothesized to be important for understanding adolescents' social responsibility and prosocial behaviors (Carlo & Padilla-Walker, 2020; Wray-Lake & Syvertsen, 2011). For example, Metzger and colleagues (2018) hypothesized that the youth who can appropriately regulate their own emotions are better able to provide help to others, and they found that higher levels of emotion regulation was associated with informal helping and environmental behaviors. A recent study also found that college students' stress regulation skills predicted volunteering during the COVID-19 pandemic (Sewell et al., 2023).

It is important to note that negative emotions such as fear, stress, anger, and guilt play an important role in motivating standard political behaviors and activism (Anyiwo et al., 2020; Dull et al., 2021; Hope et al., 2022; Kornbluh et al., 2022; Oosterhoff et al., 2018). Qualitative work suggests that anger towards discrimination, racism, and injustice can prompt youth to engage in social justice activism (Wray-Lake et al., 2018), and quantitative work suggests youth who reported more anger towards social injustice engaged in more interpersonal anti-racist actions (Bañales et al., 2021).

Though negative emotions may prompt initial engagement in social justice activism, adolescents and young adults report mixed emotional responses while engaging in activism (May

et al., 2022). For example, a recent study found that participation in Black Lives Matter activism was associated with feelings of anxiety and anger but also feelings of hope and inspiration (Baskin-Sommers et al., 2021). Some scholars have proposed that civic engagement can serve as an adaptive coping response to discrimination and inequality and as an opportunity for youth empowerment (Hope & Spencer, 2017). However, some evidence suggests that engaging in antiracist activism is associated with greater stress and worse mental health for Black adolescents and emerging adults due to greater exposure to racism and anticipatory racism-related stress (Hope et al., 2018, 2022).

A certain level of negative emotion may be needed to prompt action, but high levels of negative emotions while engaging in activism may entail burnout and worse mental health. Emotional responsiveness and capacities to modulate emotions may be particularly important for understanding not only how youth become politically involved, but also how they sustain hope and preserve the psychological benefits from their political participation (Hope et al., 2018; Riley et al., 2021).

Openness to Experience / Innovation Skills and Civic Engagement

Openness to experience and innovation skills support individuals' engagement with novel ideas and experiences. Facets of openness to experience and innovation include individuals' tendencies and capacities to engage with abstract concepts, generate new ideas, create and appreciate art, and understand and appreciate different cultural backgrounds. Wray-Lake and Syvertsen (2011) speculated that the enhanced information processing and abstract thinking capacities of adolescence facilitate the development of social responsibility. Critical thinking has also been identified as a civic skill (Kirlin, 2003; Youniss et al., 2002). There has been extensive work connecting adolescents' reasoning and belief systems with civic engagement (Diemer &

Rapa, 2016; Hope & Bañales, 2019; Metzger et al., 2019; Metzger & Smetana, 2010; Suzuki et al., 2023). A necessary precursor to different civic activities entails cognitions about political and social issues and one's own responsibility to do something about those issues.

Research has found support for the relationship between capacities for abstract cognition and youth civic and political participation. For example, higher levels of future-mindedness— the capacity to think abstractly about future events— and prosocial moral reasoning— evaluations of prosocial actions as both obligatory and worthy of social praise— are related to greater prosocial civic participation and voting intentions (Metzger et al., 2016, 2018; Oosterhoff, Whillock, et al., 2021). In addition, the critical consciousness and youth sociopolitical development frameworks posit that social analysis and critical reflection are bidirectionally associated with youth's civic and political engagement (Watts et al., 2011; Watts & Flanagan, 2007). Both social analysis and critical reflection can be understood as the ability to understand, recognize, and critically analyze inequitable and oppressive systems. Several studies indicate that higher levels of critical reflection are related to higher levels of social-justice-related action (Heberle et al., 2020; Kornbluh et al., 2022; Le et al., 2022). Curiosity has also been linked to both social analysis and societal involvement (Clark & Seider, 2020).

Moreover, youth can express their civic and political beliefs in creative ways such as through art, music, videos, blogs, and digital content posted on social media platforms (Cho et al., 2020; Stornaiuolo & Thomas, 2017; Wilf et al., 2023). Photovoice and digital storytelling are two methods used in youth participatory action research that provide an opportunity for youth empowerment and civic engagement via creative means (Greene et al., 2018; Wilson et al., 2007). Finally, innovation skill facets, such as abstract thinking, are associated with college students' volunteering (Sewell et al., 2023), and the domain-level measure of innovation skills is

associated with adolescents' civic organization involvement and activism (Soto et al., 2022b). Taken together, openness to experience and innovation may be critical for understanding how youth may become involved in various civic and political behaviors.

Section 3: Strengths of the Integrative Trait and Skill Framework and Avenues for Future Research

In this manuscript, I have highlighted how research on the personal qualities associated with youth civic and political participation can be synthesized and organized in terms of a five-factor trait and skill framework. In this final section, I highlight the strengths of this framework and fruitful avenues for future research (see Table 2).

Table 2

Future Directions for the Five Factor Trait and Skill Framework and Youth Civic Engagement

Research Topic	Future Research Directions
Multidimensionality	How are personality traits and SEB skills related to different facets of civic participation during adolescence and emerging adulthood?
Specificity	In what contexts do SEB skills provide greater predictive power than personality traits for civic outcomes?
	Do personality trait and SEB skill domains or facets offer greater predictive power for civic outcomes?
Bidirectionality and Reciprocity	How do personality traits, SEB skills, and civic engagement co-develop over time?
	How does habitual versus novel civic action relate to personality trait and SEB skill change?
Developmental Processes	What ecological assets foster personality trait or SEB skill change?
	Do personality traits and SEB skills mediate the relationship between ecological assets and youth civic participation?
Individual Differences	How do youths' knowledge, beliefs, values, and motivations translate to civic action?

Strengths of the Five-Factor Trait and Skill Framework

The multidimensionality of the trait and skill framework complements the multidimensional nature of civic and political participation. It is likely that different types of civic and political behavior are associated with different personality traits and SEB skills. For example, volunteering is often categorized as an inherently prosocial civic behavior (Carlo & Padilla-Walker, 2020; Eisenberg et al., 2009; Wray-Lake et al., 2020). Thus, personality traits, such as extraversion and agreeableness, and SEB skills that help adolescents actively engage with other people and maintain positive relationships may be particularly important for volunteering, but less important for civic behaviors such as voting, which involves less direct interaction with others. The multidimensionality of the five-factor trait and skill framework engenders an opportunity to explore what constellation of personality traits and SEB skills promotes which facet of civic and political participation and how particular personality traits and/or SEB skills may change after adolescents and young adults engage in specific civic and political actions.

Another strength of the five-factor trait and skill framework is that it allows for a more fine-comb investigation of the personal qualities implicated in civic and political development because it captures both personality traits (tendencies) and SEB skills (capacities). The specificity principle posits that understanding development entails questions regarding what is studied, in whom, how, and when (Bornstein, 2017). Beyond promotive environmental factors, several specificities undergird civic and political development during adolescence and emerging adulthood. For specific youth in specific contexts engaging in specific civic actions, specific traits and/or specific SEB skills may be more or less important (Bornstein, 2017).

For example, there are likely individual differences in how challenging adolescents and emerging adults view different civic actions. For those youth who view certain civic actions as more demanding, higher levels of certain SEB skills may predict greater engagement. In contrast, a high level of skill may not be necessary to engage in activities that certain youth view as less demanding. Future research should explore adolescents' and emerging adults' perceptions of the contextual demands of certain civic actions as well as these perceptions relationships with personality traits and SEB skills.

Another critical question to explore with this framework is whether civic and political behaviors are better predicted by the personality trait and SEB skill domains or whether particular trait or skill facets provide greater predictive power (Stewart et al., 2022). The Big Five taxonomy and the BESSI conceptualize and measure personality traits and SEB skills as hierarchical groupings including both lower-order and higher-order facets (Soto & John, 2017a; Soto et al., 2022a). For example, anxiety, depression, and negative emotionality are examples of lower-order facets of negative emotionality, and stress regulation, confidence regulation, capacity for optimism, and anger management are lower-order facets of emotional resilience skills. This distinction may be particularly important because recent research has found that strength in the emotional resilience skill domain does not predict any adolescent civic and political activities (Soto et al., 2022b), but strength in stress regulation, a facet of emotional resilience, predicted college students' volunteering (Sewell et al., 2023). Facets of personality can similarly drive associations between domain-level traits and civic and political participation (Stahlmann et al., 2023). A more systematic investigation of the predictive power of personality trait and SEB skill domains and facets would be necessary for future developmental research.

Other Future Directions

Bidirectionality and Reciprocity among Traits, Skills, and Civic and Political Participation

The five-factor trait and skill framework is also compatible with the relational developmental systems metatheory which emphasizes plasticity in development and the principles of bidirectionality and reciprocity (Lerner et al., 2015). Personality traits exhibit both normative mean-level trait change as well as between-person variability in change during adolescence and emerging adulthood (Bleidorn et al., 2022; Ringwald et al., 2023; Soto et al., 2011). Emerging evidence also suggests that SEB skills change across adolescence, and there is significant between-person variability in change (Feraco & Meneghetti, 2023; Napolitano et al., in preparation). SEB skills are thought to be malleable, and some scholars speculate that they may be more changeable than traits (Duckworth & Yeager, 2015; Napolitano et al., 2021; Soto et al., 2021).

Habitual civic actions may more closely relate to adolescents' personality traits, whereas novel or demanding civic actions may particularly require that adolescents utilize their SEB skills. Engaging in habitual civic behaviors may lead to both trait and skill change. However, engaging in a demanding civic or political activity may lead to subsequent skill development. For example, organizing a protest may be a highly demanding political activity that helps youth build social engagement and self-management skills. Future work should explore whether civic engagement leads to subsequent personality trait or SEB skill change and if traits and skills may be differentially impacted by different civic activities.

Developmental Processes linking Ecological Assets, Traits, Skills, and Civic and Political Participation

The trait and skill framework may also help to explain mechanisms through which ecological assets promote civic and political participation. Ecological assets are contexts in which youth can develop habits and practice SEB skills. Developmental theorists have long argued that the foundations of civic engagement are laid in the everyday lives of adolescents (Flanagan, 2003; Kirlin, 2003; Obradović & Masten, 2007; Sherrod & Lauckhardt, 2009; Wray-Lake, 2019). For example, political discussions with parents are an important contextual correlate of youth civic engagement (Boyd et al., 2011; Diemer, 2012). Extraversion and social engagement skills are individual differences that likely impact the dynamic interaction between an adolescent and their parent in this context. For example, it is likely that adolescents who tend to be sociable and are more socially skilled (i.e., can better articulate their questions and better engage in dialogue) prompt greater engagement from their parents in these political discussions. These conversations can also reinforce extraversion dispositions and provide adolescents opportunities to practice and improve their social engagement skills. Future work can explore the developmental sequencing among contextual factors, personality traits, SEB skills, and civic engagement.

Trait and Skill Interactions with Other Individual Differences

Adolescents and emerging adults bring more than their personality traits and SEB skills to their environments. Their motivation, knowledge of governance and current events, civic beliefs, attitudes, values, and purpose are also important predictors of their civic and political participation (Ballard, 2014; Cohen & Chaffee, 2013; Malin et al., 2015; May et al., 2022; Metzger & Smetana, 2009). These factors may interact with personality traits and SEB skills to

influence whether an adolescent engages in civic action. For example, research has indicated that adolescents who view certain civic actions as obligatory and worthy of respect also report that they do those same civic actions more frequently (Metzger et al., 2019). It is possible that adolescents and emerging adults who have higher levels conscientiousness and/or self-management skills may be better able to match their beliefs to their actions. In other words, adolescents who view civic actions as a duty and who also tend to be responsible and/or are skilled at fulfilling obligations may report higher levels of civic engagement than adolescents who similarly view civic actions as obligatory but tend to be irresponsible and/or are less skilled at fulfilling obligations (Mondak et al., 2010). Future work could explore how personality traits and SEB skills may act as potential mechanisms through which civic beliefs, motivations, values, and knowledge translate to civic and political actions.

Conclusion

Becoming involved in community affairs is a critical developmental task for adolescents and emerging adults, and engaged citizens promote vibrant and healthy democracies. Historically, there has been no consensus or integration across disciplines on the personal qualities associated with youth civic engagement. This paper organizes findings from the literature in terms of a five-factor personality trait and social, emotional, and behavioral (SEB) skills framework. The five-factor trait and skill framework would deepen our understanding of the psychological antecedents, processes, and consequences of adolescent and emerging adults' civic and political participation. Personality traits and SEB skills are predictors of positive developmental outcomes and likely serve as an essential resource for engaging in the broader community. In turn, civic and political activities may also be an important context in which young people develop positive habits and strengthen their SEB skills. The five-factor trait and

skill framework would also complement ecological approaches and deepen our understanding of civic and political development. Future research on the five-factor trait and skill framework should explore the topics of 1) multidimensionality, 2) specificity, 3) bidirectionality, 4) developmental processes, and 5) interactions with other individual differences.

CHAPTER 3: A QUASI-EXPERIMENTAL INVESTIGATION OF VOLUNTEERING ON COLLEGE STUDENTS' PERSONALITY TRAITS AND SEB SKILLS

Significant research has explored the contextual and individual correlates of civic engagement during emerging adulthood (Carlo et al., 2005; Mahatmya & Lohman, 2012; Obradović & Masten, 2007; Oosterhoff, Whillock, et al., 2021; Yazdani et al., 2022). Much of the work on individual correlates utilizes constructs that can be categorized as traits— a person's *typical* behavior in a domain. However, social, emotional, and behavioral (SEB) skills—a person's *capacity* for a behavior (Soto et al., 2021)— may also uniquely predict their civic engagement. In turn, civic engagement can also provide emerging adults opportunities to consistently engage in certain behaviors, changing trait levels, and opportunities to get better at certain tasks, changing SEB skill levels. Thus, civic engagement may serve as an important context for both personality trait and SEB skill development.

This study has four aims. The first is to investigate how college students' personality traits and SEB skills are related to a diverse set of civic engagement facets. The second aim is to explore whether personality traits and SEB skills provide incremental validity over the other when predicting different facets of civic engagement. The third aim is to understand whether personality traits and SEB skills are an antecedent to engaging in campus-based volunteering. Finally, the fourth aim is to explore whether campus-based volunteering is associated with change in personality traits and/or SEB skills over the course of a semester.

Civic Engagement during Emerging Adulthood

Civic engagement is a multidimensional construct constituted by values, attitudes, and political and prosocial contributions to community and society (Wray-Lake, Metzger, et al., 2017). Civic exploration is critical during emerging adulthood, the period between 18 and 29

years old, because this is the time when individuals are reflecting on key questions such as who they are and what kind of world they'd want to live in (Flangan & Levine, 2010; Núñez & Flanagan, 2014). This exploration is key in forming a civic identity which is foundational for future civic participation (Finlay et al., 2010; Flanagan & Levine, 2010). Beyond implications for later engagement, civic participation during emerging adulthood is associated with positive developmental outcomes such as better well-being and health, more years of education, and higher socioeconomic status (Ballard et al., 2019; Wray-Lake, DeHaan, et al., 2019).

Longitudinal research suggests that civic engagement increases across emerging adulthood in the United States, but there is variability in these trajectories (Wray-Lake et al., 2020). For example, political interest tends to increase between ages 18 and 24 and stabilizes thereafter, electoral participation and political voice demonstrate consistent growth across the ages of 18 and 30, and volunteering tends to decrease steadily after age 18 and stabilizes around age 24 (Wray-Lake, Schulenberg, et al., 2017; Wray-Lake et al., 2020). Though political engagement demonstrates normative growth across emerging adulthood, many emerging adults can still be categorized as politically disengaged (Snell, 2010). Therefore, it is critical to investigate whether individual differences in personality traits or SEB skills may influence emerging adults' civic and political involvement.

Defining Personality Traits and SEB Skills

Personality traits can be defined as characteristic patterns of thinking, feeling, and behaving (Roberts & Yoon, 2022). In other words, they capture someone's *tendencies*, averaged across situations (Fleeson & Jayawickreme, 2015). In contrast, SEB skills capture how someone *can* behave when needed (Soto et al., 2021). For example, someone who is typically shy and reserved may also be highly capable of speaking in front of a crowd.

This example illustrates how personality traits and SEB skills are conceptually intertwined. Both share common social, emotional, and behavioral referents, and, indeed, a growing body of theoretical and empirical literature has found that the structure and organization of SEB skills mirrors that of the Big Five— one of the most utilized frameworks for studying personality traits (Abrahams et al., 2019; Napolitano et al., 2021; OECD, 2015, 2021; Soto et al., 2021; Walton et al., 2021). The Big Five organizes personality traits into five broad domains: Conscientiousness (e.g., productiveness, responsibility), extraversion (e.g., gregariousness, assertiveness), agreeableness (e.g., compassion, trust), negative emotionality (e.g., anxiety, emotional volatility), and openness to experience (e.g., creativity, curiosity). In recent taxometric work on the Behavioral, Emotional, and Social Skills Inventory (BESSI; Soto et al., 2022a), results indicated that the SEB skills could be similarly organized across five broad domains: Self-management skills (e.g., task management, rule-following skill), social engagement skills (e.g., leadership skill, persuasive skill), cooperation skills (e.g., perspective-taking skill, capacity for trust), emotional resilience skills (e.g., stress regulation, confidence regulation), and innovation skills (e.g., creative skill, abstract thinking skill).

Though SEB skills and personality traits can both be organized in similar five-domain frameworks, skills and traits are not identical. Exploration of SEB skills' nomological network has indicated that convergent correlations between traits and skills range from moderate (M = .58; Lechner et al., 2022) to strong (M = .75; Soto et al., 2022a), but both personality traits and SEB skills contribute unique explained variance when predicting adolescents' self-reported academic, social, occupational, and well-being outcomes (Soto et al., 2022b). These findings indicate that both how someone tends to behave and how someone is capable of behaving matters for their success and thriving. Furthermore, research also indicates that SEB skills

provide incremental validity over personality traits when predicting school-reported grades, standardized test scores, and performance in social role-playing exercises (Breil et al., 2022; Soto et al., 2022b, 2023; Yoon et al., 2024). These findings suggest that SEB skills may be particularly important in high-stakes or demanding contexts.

Personality traits and SEB skills are also speculated to differ in terms of their malleability with SEB skills the more changeable of the pair (Soto et al., 2021). It may be that it is easier to change your skill level via practice than it is to change your habits or your tendencies, although this possibility needs to be explored. While personality is relatively enduring across time, there is robust evidence that traits do change across the lifespan, in response to life events, and after intervention (Bleidorn et al., 2022; Roberts et al., 2017; Roberts & Yoon, 2022; Steiger et al., 2021). Therefore, it is critical to explore whether traits and SEB skills may be differentially impacted by particular life experiences, such as civic engagement during the college years.

SEB Skills, Personality Traits, and Civic Engagement

SEB skills may be particularly important for understanding emerging adults' civic engagement because some individuals become civically engaged in response to sociopolitical and sociohistoric events such as an announcement of political campaigns, a natural disaster, or instances of police brutality. With new and pressing contextual demands, people can utilize their SEB skills in ways they might not tend to in order to rise to the occasion and improve their communities (Soto et al., 2021; Napolitano et al., 2024). For example, in a short-term longitudinal study, strength in particular SEB skills— including perspective-taking skills, abstract thinking skills, and stress regulation— were a potent predictor of the number of hours that college students volunteered during the COVID-19 pandemic (Sewell et al., 2023). Cross-sectional research has also found that higher levels of SEB skills were related to greater civic

engagement among adolescents in high school (Soto et al., 2022b).

Personality traits also may be just as important for understanding civic engagement. For example, some youth with certain dispositions may find certain civic activities more or less attractive. Political scientists have emphasized the importance of personality traits and personality and context interactions for understanding political behavior among adults (Gerber et al., 2011; Mondak et al., 2010; Vecchione & Caprara, 2009). In general, this research suggests that more agreeable adolescents and emerging adults engage in prosocial civic behaviors like volunteering, more open individuals engage in activism and standard political behaviors such as voting and contributing money and working for a political party/campaign, and more extraverted individuals engage in prosocial civic behaviors, standard political behaviors, and activism (Ackermann, 2019; Beck & Jackson, 2022; Brandt et al., 2022; Furnham & Cheng, 2019; Mondak et al., 2010; Omoto et al., 2010; Stahlmann et al., 2023).

Only one study has investigated whether personality traits and SEB skills contribute unique explained variance when predicting civic engagement. Soto and colleagues (2022b) found that, for high school students, both SEB skills and traits provided unique information for three civic engagement facets— social responsibility, volunteering, and activism. However, only SEB skills provided unique information for civic skills, organizational involvement, and informal helping. Whether emerging adults demonstrate a similar pattern of associations warrants exploration, and these findings would provide preliminary evidence of potential developmental differences in the importance of personality traits and SEB skills for understanding civic development.

Service-learning and Extracurricular Volunteering as a Context for Development

Scholars have argued that there should be meaningful opportunities to become civically engaged on college campuses— an important context of emerging adulthood (Finlay et al., 2010; Núñez & Flanagan, 2014). Many institutions of higher education share this ethos and explicitly list preparing students for civic life in their mission statements (Bringle & Hatcher, 1996). Service-learning and extracurricular volunteering are means through which colleges and universities foster civic development among their students.

Service-learning is a form of experiential education in which students engage in critical reflection and in activities that address community needs (Núñez & Flanagan, 2014). Encouragingly, a meta-analysis has indicated that K-12 and college students who engage in service-learning are more civically engaged and have higher levels of academic achievement than those who did not engage in service-learning (Celio et al., 2011). This meta-analysis also suggests that service-learning is an important context for personal development: Students who engaged in service-learning had higher levels of social skills, such as leadership, cultural competence, and social problem-solving skills, after their involvement compared to students who did not (Celio et al., 2011). A systematic review of service-learning in higher education similarly concluded that service-learning may help college students develop leadership, cultural competence, communication, and interpersonal skills (Salam et al., 2019). A recent meta-synthesis also suggests that service-learning has small but significant impacts on college student's empathy (Gordon et al., 2022). Finally, there is also some qualitative evidence that suggests extracurricular volunteering helps emerging adults hone their social skills (Khasanzyanova, 2017).

These findings suggest that campus-based volunteering— whether through service-learning or extracurricular experiences— can lead to personal development, particularly in social and cooperative domains. However, whether this development is in terms of trait change or skill change still needs to be explored. In addition, whether college students engage in service-learning or extracurricular volunteering opportunities on their campuses may depend on their personality traits and SEB skills. Students with certain traits or skillsets may select into these opportunities. For example, more extraverted or socially skilled students may seek out specific courses and student organizations that help them connect with others, and students who have high levels of conscientiousness or self-management skills may better be able to balance extracurricular volunteering, schoolwork, and other obligations. If there is an endogeneity effect with personality traits or SEB skills, some students may miss out on a critical civic, academic, and personal development context.

Present Study

The present research investigates four questions: 1) How are personality traits and SEB skills related to civic engagement during emerging adulthood? 2) Do traits or skills provide incremental validity over the other in predicting various civic facets? 3) Do traits or skills act as a selection effect for participating in service-learning and campus-based volunteering? 4) Does engaging in service over the course of a semester predict change in traits or skills after accounting for normative developmental change?

To investigate these questions, I utilized a quasi-experimental design with two waves of data collection across 10 weeks. Based on the extant literature, I broadly hypothesized that higher levels of SEB skills and higher levels of extraversion, agreeableness, and openness to experience would be associated with greater civic engagement. In addition, based on prior work

with high school students (Soto et al., 2022b), I hypothesized that both traits and SEB skills would provide incremental validity over the other when predicting social responsibility, in-person activism, and online activism but that SEB skills would provide incremental validity for civic skills, informal helping, and civic organizational involvement. I also broadly hypothesized that college students engaged in service-learning and extracurricular volunteering would differ in terms of their traits and SEB skills compared to students who were not engaged. I also hypothesized that either traits or skills related to social and cooperative domains (i.e., extraversion, agreeableness, social engagement skills, and cooperation skills) would positively change after engaging in service learning or extracurricular volunteering.

Method

Participants

Two waves of data were collected from two groups of university students: 1) students who were participating in a volunteering recognition program at the University of Illinois at Urbana-Champaign (N = 169) and 2) a comparison group of students who were not currently volunteering or taking service-learning courses (N = 286). The total sample consisted of 455 participants at the first wave of data collection, and 284 participants at the second wave of data collection (62.4% retention). Participants were included in the analytic sample if they were between the ages of 18 and 29, completed all short answer responses, completed the majority of questions (60%), and if their within-participant standard deviation on Big Five personality items was greater than 0.5.

At the first wave of data collection, a slight majority of participants identified as female (59.8%), averaged 20.9 years old (SD = 2.3), and were undergraduate students (81.2%). The sample was diverse with regards to racial and ethnic background: 49.4% of participants

identified as White, 21.4% as East Asian, 17.2% as South Asian, 15.9% as Latinx or Hispanic, 6.2% as Black, 2.3% as Middle Eastern or North African, and 1.2% as Native American, 2.5% indicated another racial or ethnic group, and 4.1% preferred not to answer. In total, 3.4% of participants indicated multiple racial categories. In terms of family income, 20.8% had household incomes of less than 35,000, 36.6% had incomes between 35,000 and 100,000, and 42.6% had household incomes over 100,000. Over a quarter of the participants (28.8%) were first generation college students. The comparison sample was slightly older (M = 21.1, SD = 2.0) than the volunteering sample (M = 20.5, SD = 2.7; $F(1, 453) = 5.83$, $p = .016$). The comparison sample also included more white students (41.3%) than the volunteering sample (25.6%; χ^2 (1, 443) = 7.1, p = .008). In addition, the comparison sample had a higher average family income (M = 4.84, SD = 2.1) than the volunteering sample (M = 4.39, SD = 2.3; $F(1,372) = 5.83$, $p = .048$). There were no other differences in terms of demographic characteristics.

Attrition analyses indicate that group membership predicted attrition (χ^2 (1, 454) = 10.3, p = .001), with participants in the comparison sample having lower rates of attrition (31.8%) relative to the volunteering sample (47.3%). In addition, Asian participants had lower rates of attrition (26.8%) than participants who were not Asian (47.3%), and Latinx participants had higher levels of attrition (50.0%) than participants who were not Latinx (34.6%). No other factors predicted attrition, and there were no significant differences in sample demographics across the data collection waves.

Procedure

The group engaged in the volunteering program were recruited via two methods. The first recruitment method was through a university-wide open call for student volunteers (N = 27), and the second recruitment method was through service-learning university courses (N =142).

Students enrolled in service-learning courses were asked to participate in a voluntary research study via e-mail announcements. Students could participate in service and fulfill their course requirements without participating in this research. Both groups were connected to community organizations and volunteering projects via the same volunteering recognition program at the University of Illinois at Urbana-Champaign. All participants self-selected their projects from over 80 volunteer opportunities. The Appendix presents examples of these opportunities. Projects included in-person activities, remote activities, or hybrid in-person and remote activities due to public health concerns surrounding COVID-19. Opportunities also varied in terms of how many students could join them. For example, one community organization requested technical support during virtual meetings, which required only 1 to 2 students, while another project involved writing letters to isolated seniors and could involve dozens of students.

The group of university students who were not actively volunteering or enrolled in a service-learning course were recruited via multiple methods including 1) virtual visits to large lecture courses, 2) e-mail announcements, 3) physical flyers and social media posts, and 4) word of mouth. Before potential participants completed the informed consent, interested students were linked to an inclusion criteria question ("Are you currently participating in a formal volunteering program or service-learning course at the University of Illinois at Urbana-Champaign?"), hosted on the Qualtrics platform. If students selected "yes" to the inclusion criteria question, they were directed to a thank you message and informed that they were not eligible to complete the full survey. If students selected "no," they were linked to the informed consent and the subsequent pre-test survey. Approximately, 755 students completed the criteria question, and the majority of students (86.0%) were eligible to participate in the research study.

All participants received an email approximately 10 weeks after the first wave of data collection asking them to participate in the second wave of data collection. At the conclusion of the study, all participants received one lottery entry for each survey they completed. The lottery prizes consisted of either one of thirty $50 gift cards or one of two iPads. The 32 winners of the lottery were randomly selected, and the likelihood of winning one item from the lottery was approximately 4.6%. The procedures and data collection for this study were approved by the University of Illinois Institutional Review Board (#20915).

Measures

SEB Skills

Social, emotional, and behavioral (SEB) skills were indexed by a modified version of the 45-item Behavioral, Emotional, and Social Skills Inventory (BESSI-45; Sewell et al., under review). The BESSI-45 measures five broad SEB skill domains: Self-management skills, social engagement skills, cooperation skills, emotional resilience skills, and innovation skills. Each SEB skill domain was measured by nine items. Participants indicated how well they could perform each item, reflecting their level of expertise. An example item for the cooperation skills domain was "Understand how other people feel," (1 = Not at all well [Beginner level]; 2 = Not very well [Advanced beginner level]; 3 = Pretty well [Intermediate level]; 4 = Very well [Advanced level]; 5 = Extremely well [Expert level]). Participants completed the BESSI-45 at both waves of data collection, and each skill domain demonstrated adequate reliability at both waves ($\omega_{average,t1} = 0.76$, $\omega_{average,t2} = 0.78$).

Personality Traits

Personality traits were indexed by the 30-item Big Five Inventory-2 (BFI-2-S; Soto & John, 2017b). The BFI-2-S assesses five personality traits: Conscientiousness, extraversion,

agreeableness, negative emotionality, and openness to experience. Each personality trait was measured by six items. An example item for extraversion is "Tends to be quiet" (1 = Disagree strongly and 5 = Agree strongly). Fifteen items in the BFI-2-S were reverse scored. Participants completed the BFI-2-S during both waves of data collection, and each personality trait demonstrated adequate reliability at both waves ($\omega_{M,t1} = 0.74$, $\omega_{M,t2} = 0.74$).

Social Responsibility Values, Civic Skills, and Civic Behaviors

Social responsibility values, civic skills, and civic behaviors were measured using items drawn from the Youth Civic and Character Measures Toolkit (Syversten et al., 2015; Wray-Lake, Metzger, et al., 2017). To assess social responsibility values, participants rated the importance of four specific values (e.g., "consider the needs of other people") using a 5-point scale ($\alpha = .81$). Civic skills were assessed using six items describing specific skills (e.g., "contact someone in a leadership position about a problem"), with participants rating how well they can perform each skill on a 5-point efficacy scale ($\alpha = .72$). Informal helping was assessed using four items that describe specific ways of helping family members, friends, and community members (e.g., "Provide childcare or babysit for no pay") and asked participants to rate how often they provide each kind of help on a 5-point scale ($\alpha = .67$). Voting intentions were measured by an item asking participants to rate, on a 5-point scale, their probability of voting in national elections. Past voting was also assessed by asking participants whether they voted in the 2020 election if they were eligible.

These toolkit measures were supplemented by items adapted from previous research to assess additional facets of civic engagement. Civic organization involvement was measured by asking participants to report whether they were a part of any political/social organizations supporting issues that are important to them (Finlay et al., 2011). Activism was assessed by two

items asking participants whether they have ever participated in a political or social movement online or in person (Hope et al., 2016).

Data Analysis Plan

Missing Data

Participation in the questionnaires was voluntary, and participants could skip items. Therefore, there were varying degrees of missing data, though no single item had more than 7.00% missing responses at time 1 and time 2. Full information maximum likelihood was utilized to account for missingness in the dataset in latent analyses, and list-wise deletion was utilized in observed analyses.

Analytic Strategy

Group Comparisons. I first tested whether the two groups of participants— the volunteering group and the comparison group— differed in terms of their SEB skills and personality traits utilizing chi-square tests or ANOVAs. These analyses indicate whether there are certain personality traits and SEB skills that may prime individuals to engage in service learning and volunteering when the opportunity is available.

Relationships Among Traits, Skills, and Civic Engagement. To explore how personality traits and SEB skills are related to the civic facets, I computed both zero-order correlations among SEB skill domains, personality traits, and civic facets as well as partial correlations controlling for gender and age. In addition, I regressed each civic facet on (a) gender and age, (b) the set of SEB skill domains, (c) the set of personality traits, (d) demographics and the set of SEB skill domains, (e) demographics and the set of personality traits, and (f) demographics and the complete set of ten skill domains and personality traits.

To assess whether personality traits or SEB skills provide incremental validity over the other when predicting civic facets, I tested whether each set of predictors significantly changed the proportion of variance explained. For models with binary civic outcomes, I used Wald Chi-Square tests to assess whether there were significant differences between the nested models, and for models with continuous civic outcomes, I used ANOVAs to test for significant differences between the nested models.

Trait and Skill Change. I utilized three steps of latent variable analyses to assess whether personality traits and/or SEB skills changed after engaging in service-learning and volunteering. In the first step, I tested for measurement invariance across time. Establishing measurement invariance across time ensures that changes in the construct of interest are due to actual change in the construct and not changes in how participants interpreted items (Putnick & Bornstein, 2016).

Investigating measurement invariance entails testing a series of confirmatory factor analysis models with differing levels of equality constraints and examining changes in model fit. The baseline, or configural measurement model, has no equality constraints and provides a basis for comparison to the metric measurement model. Establishing configural invariance indicates that factor structures are equivalent across time (Putnick & Bornstein, 2016). The metric measurement model constrains item loadings to equality between groups and provides a basis for comparison to the scalar measurement model. Metric invariance indicates that each item contributes to the latent construct to a similar degree across time (Putnick & Bornstein, 2016). Finally, the scalar measurement model constrains item intercepts to equality across time. Establishing scalar invariance indicates that mean differences in the latent SEB skill domains and

personality traits capture all mean differences in the shared variance of the items (Putnick & Bornstein, 2016).

Each personality trait or SEB skill domain were modeled separately. To reduce model complexity, I modeled some factors by parceling indicators with similar conceptual content (e.g., items from the same lower-order skill facets in the BESSI; Soto et al., 2022a). Models also included parameters correlating item residuals across measurement occasions and, in the case of personality traits, across items belonging to the same trait facet. Root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), the Comparative Fit Index (CFI), and the Tucker-Lewis Index (TLI) were used to evaluate model fit (Kline, 2016). Acceptable fit was determined by CFI and TLI values $\geq .90$, and RMSEA and SRMR values $\leq$ to .08 (Hu & Bentler, 1999; Kline 2016). A nonsignificant $\Delta\chi^2$ and ΔCFI smaller than .01 between models indicated passing measurement invariance at each step (Cheung & Rensvold, 2002).

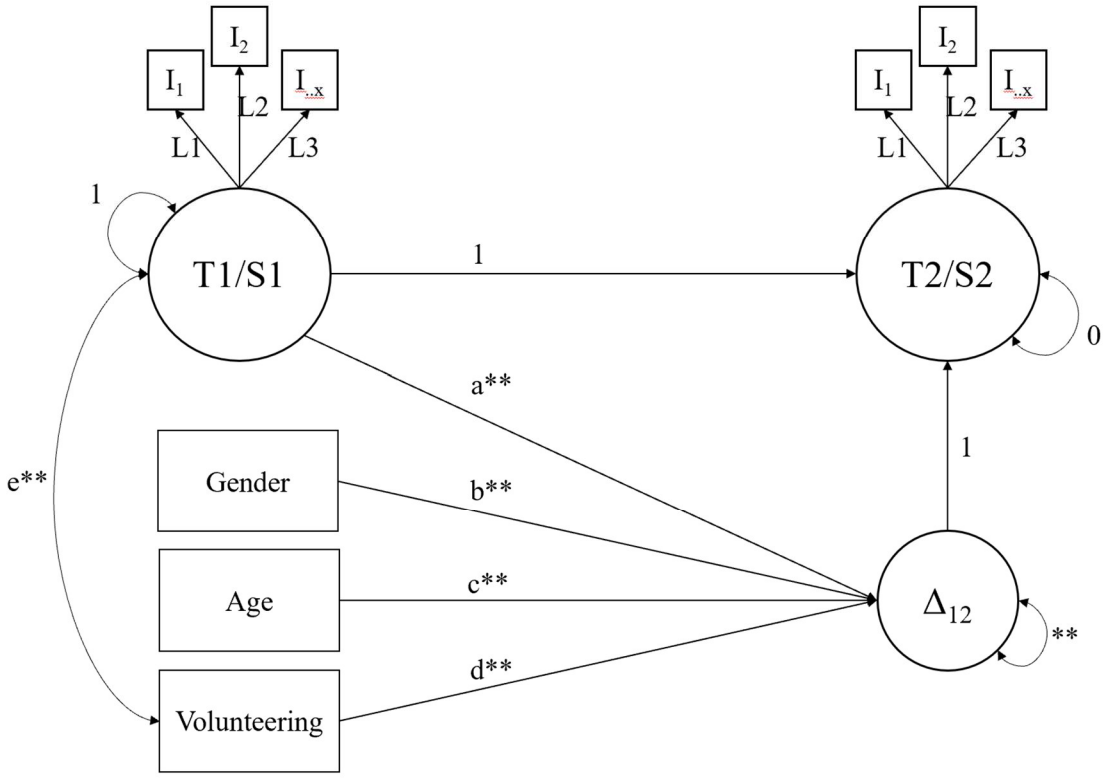
After establishing measurement models, the second step involved constructing latent-change score models (LCSMs; Ferrer & McArdle, 2010) to investigate whether participating in service-learning and volunteering is associated with change in personality traits or SEB skills. The LCSM approach is preferable to other approaches such as cross-lagged panel models because it isolates change in latent "true scores" while accounting for stability in the construct across time. With the LCSMs, I investigated change descriptives including change intercepts (average change across participants) and change variance (variability across participants around mean change).

The final step (see Figure 1) involved regressing each change score (i.e., the change in each personality trait or SEB skill) on the binary group membership variable (1 = volunteering group, 0 = comparison). If this predictor is significant, it would indicate that engaging in service

is associated with change in the trait or skill across the timepoints. Gender and age were also included as covariates in these models. All latent models were fitted using the ML estimator in the lavaan package in R (Rosseel, 2012).

Figure 1

Depiction of Latent Change Score Model with Predictors



Note. T1/S1 = personality trait or SEB skill domain at time 1, T2/S2 = personality trait or SEB skill domain at time 2, Δ_{12} = latent change score. Single-headed arrows indicate regression paths and double-headed arrows indicate correlations. Item residuals are omitted for clarity. Parameters noted with ** were freely estimated. Parameter a = change score regressed on T1 trait or skill level, parameter b = change score regressed on gender, parameter c = change score regressed on age, parameter d = change score regressed on group membership (service-learning and volunteering vs. comparison), and parameter e = correlation between group membership and personality trait or SEB skill domain at time 1.

Results

Group Differences in SEB skills and Personality Traits

I first investigated whether SEB skills and personality traits acted as a selection effect for participating in service-learning and campus-based volunteering. Table 3 presents results from these comparisons. In terms of SEB skills, participants in the volunteering sample had higher levels of all SEB skills, apart from social engagement skills, and conscientiousness than the comparison sample. These effect sizes ranged from small to medium in terms of Cohen's *d*. There were no other group differences in SEB skills or personality traits.

Table 3

Group Differences in SEB Skills and Personality Traits at Baseline

	Volunteering *M* (SD)	Comparison *M* (SD)	*F* (*df*)	*p*	Cohen's *d*
BESSI SM.	3.84 (0.55)	3.54 (0.52)	31.7 (1, 437)	< .001	0.56
BESSI SE.	3.39 (0.64)	3.28 (0.72)	2.69 (1, 440)	.10	0.16
BESSI CO.	4.05 (0.50)	3.85 (0.55)	14.3 (1, 433)	< .001	0.38
BESSI ER.	3.50 (0.70)	3.22 (0.69)	16.5 (1, 441)	< .001	0.40
BESSI IN.	3.44 (0.60)	3.28 (0.59)	6.72 (1, 425)	.010	0.26
BFI Con.	3.66 (0.71)	3.45 (0.76)	8.29 (1, 425)	.004	0.29
BFI Ex.	3.10 (0.77)	3.16 (0.81)	0.61 (1, 426)	.43	-0.08
BFI Ag.	3.94 (0.61)	3.86 (0.65)	1.57 (1, 427)	.21	0.13
BFI NE.	2.77 (0.87)	2.77 (0.85)	1.58 (1, 425)	.21	-0.13
BFI Op.	3.81 (0.66)	3.80 (0.66)	0.40 (1, 426)	.85	0.02

Note. SM. = Self-management skills, SE. = Social engagement skills, CO. = Cooperation skills, ER. = Emotional resilience skills, IN. = Innovation skills, Con. = Conscientiousness, Ex. = Extraversion, Ag. = Agreeableness, NE. = Negative emotionality, Op. = Openness to Experience. Degrees of freedom differed across tests depending on missingness.

These findings support my hypothesis that students engaged in service learning and volunteering would differ in terms of their SEB skills and personality traits compared to those who were not engaged and suggest that participants who are more conscientious and more skilled tend to select into service-learning and volunteering opportunities.

Relationships among Personality Traits, SEB Skills, and Civic Engagement

For subsequent analyses investigating the relationships among personality traits, SEB skills, and civic engagement, I combined the two samples. Table 4 presents the bivariate correlations among demographic characteristics, SEB skills, personality traits, and civic engagement. In general, female participants reported greater civic engagement (6 out 8 facets), and Asian participants reported less civic engagement (5 out of 8 facets). Higher levels of SEB skills were associated with more civic engagement (47.5% of possible skill and civic facet combinations), and higher levels of personality traits were similarly associated with more civic engagement (47.5% of possible trait and civic facet combinations). Past voting was the only civic facet not associated with any SEB skill or personality trait.

Table 4

Bivariate Correlations among Demographics, SEB Skills, Personality Traits, and Civic Engagement

	Social Resp.	Civic Skills	Inf. Helping	Past Voting	Voting Int.	Civic Org.	O. Activism	I-p. Activism
Gender	-.28*	-.18*	-.28*	-.15*	-.04	-.02	-.34*	-.23*
White	.01	.10*	-.02	.14*	.15*	.02	.04	.02
Asian	-.16*	-.16*	-.07	-.14*	-.22*	-.06	-.06	-.11*
Latinx	.11*	-.01	.07	.06	.05	.01	-.03	.01
Other	.11*	.11*	.06	-.09	.05	.03	.07	.12*
Income	-.01	-.02	-.16*	-.01	.18*	.01	-.07	-.06
First Gen.	.04	.02	.13*	.09	-.01	-.02	.08	.10*
Age	-.01	.12*	-.03	.14*	-.10	.04	-.03	.02
BESSI SM.	.28*	.31*	.24*	-.04	.04	.00	-.12*	-.07
BESSI SE.	.25*	.46*	.30*	-.02	.06	.11*	.01	.06
BESSI CO.	.42*	.37*	.30*	-.03	.15*	.05	.04	.07
BESSI ER.	.11*	.27*	.15*	-.07	.04	-.06	-.17*	-.12*
BESSI IN.	.25*	.32*	.32*	.01	.02	.11*	.09	.12*
BFI Con.	.17*	.23*	.17*	.02	.00	-.05	-.07	-.07
BFI Ex.	.16*	.37*	.23*	-.03	.05	.11*	.05	.08
BFI Ag.	.35*	.18*	.17*	-.01	.09	-.03	.11*	.09
BFI NE.	.10*	-.19*	.01	.08	.01	.04	.24*	.18*
BFI Op.	.20*	.23*	-.01	.07	.18*	.09	.18*	.16*

Note. Resp. = Responsibility, Inf. = Informal, Int. = Intentions, Org. = Organizational Involvement, O. = Online, Ip.= In-person, Gen. = generation, SM. = Self-management skills, SE. = Social engagement skills, CO. = Cooperation skills, ER. = Emotional resilience skills, IN. = Innovation skills, Con. = Conscientiousness, Ex. = Extraversion, Ag. = Agreeableness, NE. = Negative emotionality, Op. = Openness to Experience.

* $p < .05$

To further explore how SEB skills and personality traits were related to civic engagement, I computed partial correlations and also regressed each civic facet on the set of five SEB skills or the set of five personality traits to account for the shared variance between the SEB skill or trait domains. Both partial correlations and regression analyses controlled for participant gender (male = 1, female = 0) and age. Table 5 presents the coefficients from these analyses. After accounting for the shared variance among SEB skills, participants who had higher levels of cooperation skills also had higher levels of social responsibility, greater intention to vote, and greater likelihood of having engaged in in-person activism. Higher levels of social engagement skills predicted higher levels of civic skills and more frequent informal helping. Higher levels of innovation skills also predicted more frequent informal helping. A more complex pattern of associations emerged when examining self-management skills. Participants who had higher levels of self-management skills engaged in more informal helping but were less likely to have participated in online or in person activism activities. Participants who were higher in emotional resilience skills were less likely to be involved in a civic organization.

Table 5

Partial Correlation and Standardized Regression Coefficients of SEB Skills and Personality Traits with Civic Engagement

	Social Resp.	Civic Skills	Inf. Helping	Voted	Voting Int.	Civic Org.	O. Activism	Ip. Activism
BESSI SM.	.26* / .11	.29* / .10	.23* / .13*	-.05 / -.07	.04 / -.05	.01 / .03	-.15* / -.45*	-.08 / -.31*
BESSI SE.	.25* / .03	.45* / .33*	.32* / .19*	-.04 / -.24	.07 / .04	.10* / .34	.01 / -.01	.06 / .03
BESSI CO.	.41* / .35*	.35* / .08	.27* / .09	-.06 / -.17	.17* / .19*	.04 / .08	.00 / .24	.05 / .33*
BESSI ER.	.18* / -.06	.30* / .04	.20* / -.04	-.05 / .19	.08 / .16	-.05 / -.43*	-.11* / -.15	-.07 / -.18
BESSI IN.	.24* / .06	.31* / .09	.32* / .16*	-.03 / .08	.02 / -.05	.10* / .33	.05 / .21	.08 / .25
BFI Con.	.11* / .03	.20* / .05	.12* / .09	.00 / .13	.00 / -.02	-.04 / -.07	-.13* / -.31*	-.11* / -.28*
BFI Ex.	.15* / .08	.35* / .27*	.23* / .22*	-.02 / -.17	.08 / .03	.11* / .39*	.05 / .13	.07 / .19
BFI Ag.	.29* / .28*	.13* / .06	.11* / .11*	-.06 / -.20	.11 / .11	-.06 / -.06	.04 / .17	.03 / .18
BFI NE.	-.01 / .08	-.25* / -.16*	-.08 / .00	.05 / .05	-.02 / -.03	.03 / .22	.13* / .27	.11* / .14
BFI Op.	.21* / .16*	.22* / .14*	-.02 / -.05	.05 / .09	.18* / .14	.06 / .14	.16* / .33*	.12* / .28*

Note. Partial correlations are to the left of the forward slash and standardized regression coefficients are to the right. Resp. = Responsibility, Inf. = Informal, Int. = Intentions, Org. = Organizational Involvement, O. = Online, Ip.= In-person, SM. = Self-management skills, SE. = Social engagement skills, CO. = Cooperation skills, ER. = Emotional resilience skills, IN. = Innovation skills, Con. = Conscientiousness, Ex. = Extraversion, Ag. = Agreeableness, NE. = Negative emotionality, Op. = Openness to Experience. Both analyses control for gender (1 = male, 0 = female) and age.

*$p < .05$

After accounting for the shared variance among personality traits, higher levels of agreeableness were associated with higher levels of social responsibility and informal helping. Higher levels of extraversion were associated with higher levels of civic skills, informal helping, and civic organizational involvement. In addition, higher levels of openness to experience were associated with higher levels of social responsibility, civic skills, and online and in-person activism. In contrast, conscientiousness and negative emotionality demonstrated negative associations with certain civic facets. Participants who had higher levels of conscientiousness were less likely to have participated in online or in-person activism. In addition, higher levels of negative emotionality were associated with lower levels of civic skills.

Taken together, these findings partially support my hypothesis that strength in SEB skills would be associated with higher levels of civic engagement. Prosocial civic facets such as informal helping and social responsibility were associated with strength in several SEB skills. However, political civic facets— such as voting intentions, civic organizational involvement, and in-person and online activism— demonstrated both positive and negative associations with SEB skills. In addition, these findings support my hypothesis that higher levels of extraversion, agreeableness, and openness to experience would be associated with greater civic and political engagement.

Incremental Validity of SEB Skills and Personality Traits when Predicting Civic Engagement

To explore whether SEB skills or personality traits provide incremental validity over the other when predicting civic engagement, I conducted nested regression analyses in which each civic indicator was regressed on various sets of predictors including demographics, SEB skills, and personality traits. The incremental validity findings are presented in Table 6.

Several notable findings emerged from these analyses. First, both SEB skills and personality traits contributed unique explained variance over demographic characteristics for 6 out of 8 civic facets. SEB skills and personality traits did not contribute significantly to the predicted variance for voting intentions and past voting. Second, for 3 out of 8 civic facets, SEB skills provided incremental validity over personality traits ($M_{\Delta R2} = 0.08$). Third, personality traits provided incremental validity over SEB skills for the same 3 civic facets ($M_{\Delta R2} = 0.02$). These results partially support my hypothesis and indicate that SEB skills and personality are important for understanding differences in civic engagement during emerging adulthood over and above demographic characteristics. In addition, these results indicate that, for prosocial civic facets, both SEB skills and personality traits contribute unique explained variance. However, for political civic facets, SEB skills and personality traits may be interchangeable during emerging adulthood.

Table 6

The Incremental Validity of SEB Skills and Personality Traits in Predicting Civic Engagement

	Variance explained by…						Incremental validity of…			
	Dem.	BESSI	BFI	BESSI + dem.	BFI + dem.	BESSI + BFI + dem.	BESSI over dem.	BFI over dem.	BESSI over BFI	BFI over BESSI
F-test (R^2)										
Social Resp.	0.07*	0.22*	0.19*	0.24*	0.19*	0.27*	0.17*	0.12*	0.08*	0.03*
Civic Skills	0.03*	0.27*	0.18*	0.27*	0.19*	0.29*	0.24*	0.16*	0.10*	0.02*
Inf. Helping	0.07*	0.16*	0.09*	0.21*	0.13*	0.23*	0.15*	0.07*	0.10*	0.02*
Voting Int.	0.00	0.01	0.01	0.03	0.02	0.05*	0.03	0.02	0.03	0.02
M	0.04	0.17	0.12	0.19	0.13	0.21	0.15	0.09	0.08	0.02
Wald-test (χ^2)										
Voting	8.00*	1.20	2.40	9.70	9.50	10.90	2.10	1.90	0.81	1.90
Civic Org.	0.96	13.80*	9.30	13.10	9.40	14.50	12.10*	13.60*	5.10	1.40
O. Activism	42.40*	24.60*	35.80*	51.10*	54.80*	56.80*	14.30*	19.60*	2.00	5.70
Ip. Activism	22.10*	23.80*	25.70*	31.90*	34.30*	35.70*	15.10*	14.20*	1.40	3.80
M	15.09	16.04	15.44	26.84	23.92	30.74	13.84	11.54	6.70	4.04

Note. Dem. = Demographics, Resp. = Responsibility, Inf. = Informal, Int. = Intentions, Org. = Organizational Involvement, O. = Online, Ip.= In-person. Demographics include gender (1 = male, 0 = female) and age.

*$p < .05$

Change in SEB Skills and Personality Traits after Volunteering

To investigate whether engaging in service-learning and volunteering over the course of a semester predicts change in SEB skills or personality traits, I completed the following steps: 1) testing for measurement invariance across time, 2) constructing LCSMs, and 3) constructing SEMs in which group membership as well as age and gender were regressed on the change score. Each SEB skill domain and personality trait was tested individually.

Measurement Invariance Testing

Table 7 presents the goodness-of-fit indices for the configural, metric, and scalar models for each SEB skill domain and personality trait across data collection waves. All SEB skill and personality trait configural measurement models demonstrated acceptable fit to the data. Importantly, model tests indicate that $\Delta\chi^2$ was nonsignificant and ΔCFI was smaller than .01 between configural and metric models as well as between metric and scalar models. Thus, all SEB skill domains and personality traits were characterized by strong longitudinal measurement invariance, supporting subsequent longitudinal analyses.

Table 7

Fit Statistics of CFA models to Assess Measurement Invariance across Time

Models	χ^2	*df*	CFI	TLI	RMSEA	SRMR	$\Delta\chi^2$	Δdf	ΔCFI
BESSI SM. configural	66.49	28	.972	.955	.055	.041			
BESSI SM. metric	67.57	32	.974	.963	.049	.041	1.08	4	.002
BESSI SM. scalar	72.44	37	.974	.968	.046	.043	4.87	5	.000
BESSI SE. configural	127.50	28	.938	.900	.088	.055			
BESSI SE. metric	134.90	32	.936	.909	.084	.061	7.40	4	-.002
BESSI SE. scalar	141.32	37	.935	.921	.079	.062	6.42	5	-.001
BESSI CO. configural	91.64	28	.950	.919	.071	.046			
BESSI CO. metric	93.23	32	.952	.932	.065	.047	1.59	4	.002
BESSI CO. scalar	100.16	37	.950	.939	.061	.048	6.93	5	-.002
BESSI ER. configural	87.48	28	.961	.937	.068	.049			
BESSI ER. metric	88.72	32	.963	.947	.062	.049	1.24	4	.002
BESSI ER. scalar	96.10	37	.961	.953	.059	.050	7.38	5	-.002
BESSI IN. configural	60.03	14	.959	.919	.085	.051			
BESSI IN. metric	65.95	17	.957	.929	.080	.054	5.92	3	-.002
BESSI IN. scalar	67.01	21	.960	.946	.069	.054	1.06	4	.003
BFI Con. configural	76.02	34	.972	.947	.052	.036			
BFI Con. metric	84.24	39	.971	.950	.051	.042	8.22	5	-.001
BFI Con. scalar	86.87	45	.973	.960	.045	.042	2.63	6	.002
BFI Ex. configural	69.20	34	.982	.965	.048	.039			
BFI Ex. metric	78.86	39	.980	.966	.048	.046	9.66	5	-.002
BFI Ex. scalar	84.49	45	.980	.971	.044	.047	5.63	6	.000
BFI Ag. configural	113.79	34	.932	.869	.072	.049			
BFI Ag. metric	116.89	39	.934	.888	.066	.052	3.10	5	.002
BFI Ag. scalar	129.84	45	.928	.895	.065	.053	12.95	6	-.006
BFI NE. configural	94.73	34	.968	.938	.063	.037			
BFI NE. metric	96.94	39	.969	.948	.057	.039	2.21	5	.001
BFI NE. scalar	98.51	45	.972	.959	.051	.039	1.57	6	.003
BFI Op. configural	78.90	34	.966	.935	.054	.040			
BFI Op. metric	81.08	39	.969	.947	.049	.041	2.18	5	.003
BFI Op. scalar	93.81	45	.963	.946	.049	.045	12.73	6	-.006

Note. SM. = Self-management skills, SE. = Social engagement skills, CO. = Cooperation skills, ER. = Emotional resilience skills, IN. = Innovation skills, Con. = Conscientiousness, Ex. = Extraversion, Ag. = Agreeableness, NE. = Negative emotionality, Op. = Openness to Experience, CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root mean square residual.

$p > .05$ for all $\Delta\chi^2$ across models.

Latent Change Score Models

After establishing scalar measurement invariance, I constructed LCSMs for each SEB skill domain and each personality trait separately. Table 8 presents the fit statistics and parameters of these models. All of the LCSMs fit the data adequately. Between time 1 and time 2, participants, on average, reported declines in emotional resilience skills, conscientiousness, and agreeableness. In addition, participants, on average, reported growth openness to experience. No other change score intercepts were statistically different from zero. However, every change score variance, except the change score of openness to experience, was significant. This finding indicates that while several SEB skills and personality traits did not demonstrate average change, participants significantly varied in the degree that they changed over time. In addition, while there was average growth in openness to experience across time, participants did not significantly vary in the degree that they changed around that mean.

Table 8

Fit Statistics and Parameter Estimates of Latent Change Score Models

	χ^2 (*df*)	CFI	TLI	RMSEA	SRMR	Latent Mean Δ T1/T2	Change Score Variance	T1 Regressive Path
BESSI SM.	72.44 (37)	.97	.97	.05	.04	-0.08	0.83*	-0.41*
BESSI SE.	141.32 (37)	.94	.92	.08	.06	0.02	0.89*	-0.34*
BESSI CO.	100.16 (37)	.95	.94	.06	.05	-0.05	0.92*	-0.29*
BESSI ER.	96.10 (37)	.96	.95	.06	.05	-0.18*	0.86*	-0.38*
BESSI IN.	67.01 (21)	.96	.95	.07	.05	0.12	0.95*	-0.23*
BFI Con.	86.87 (45)	.97	.96	.05	.04	-0.26*	0.88*	-0.35*
BFI Ex.	84.49 (45)	.98	.97	.04	.05	-0.04	0.94*	-0.24*
BFI Ag.	129.84 (45)	.93	.90	.07	.05	-0.21*	0.88*	-0.34*
BFI NE.	98.51 (45)	.97	.96	.05	.04	-0.14	0.93*	-0.27*
BFI Op.	93.81 (45)	.96	.95	.05	.05	0.49*	0.97	0.16

Note. SM. = Self-management skills, SE. = Social engagement skills, CO. = Cooperation skills, ER. = Emotional resilience skills, IN. = Innovation skills, Con. = Conscientiousness, Ex. = Extraversion, Ag. = Agreeableness, NE. = Negative emotionality, Op. = Openness to Experience. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root mean square residual.

* $p < .05$

Latent Change Score Models with Predictors

To investigate whether engaging in service learning and volunteering predicted change in SEB skills and personality traits, I regressed each change score on group membership, as well as gender and age. Table 9 presents the fit statistics and parameters from these models. All models fit the data adequately. The volunteering and service-learning group experienced declines in cooperation skills, extraversion, and openness to experience, relative to the comparison group. In terms of demographics, older participants reported growth in their emotional resilience skills. Male participants reported growth in innovation skills and openness to experience but declines in agreeableness, relative to female participants. There were no other significant findings. These results do not support my hypothesis and suggest that engaging in service-learning and volunteering is associated with lower self-evaluations of cooperative skills, extraversion, and openness to experience.

Table 9

Fit Statistics and Parameter Estimates of SEB Skill and Personality Trait Latent Change Score Models with Predictors

	χ^2 (*df*)	CFI	TLI	RMSEA	SRMR	T1 Trait/SEB Skill β (a)	Gender β (b)	Age β (c)	Group β (d)	T1 Trait/SEB Skill and Group *r* (e)
BESSI SM. Δ_{12}	114.71 (66)	.97	.96	.04	.05	-0.40*	0.00	-0.06	-0.06	.30*
BESSI SE. Δ_{12}	194.10 (66)	.92	.91	.07	.06	-0.33*	-0.01	0.09	-0.13	.09
BESSI CO. Δ_{12}	197.92 (62)	.90	.87	.07	.06	-0.24*	-0.04	-0.01	-0.20*	.18*
BESSI ER. Δ_{12}	145.56 (66)	.95	.94	.05	.06	-0.39*	0.10	0.13*	-0.09	.19*
BESSI IN. Δ_{12}	145.81 (55)	.92	.89	.07	.07	-0.24*	0.19*	0.04	-0.10	.13*
BFI Con. Δ_{12}	165.09 (80)	.95	.93	.05	.05	-0.34*	0.01	-0.01	-0.06	.17*
BFI Ex. Δ_{12}	136.09 (80)	.97	.96	.04	.05	-0.24*	0.01	0.05	-0.24*	-.06
BFI Ag. Δ_{12}	194.47 (79)	.91	.88	.06	.06	-0.39*	-0.20*	0.12	-0.11	.07
BFI NE. Δ_{12}	164.89 (79)	.96	.94	.05	.05	-0.25*	0.06	-0.13	0.03	-.07
BFI Op. Δ_{12}	163.48 (80)	.94	.92	.05	.05	0.19	0.54*	-0.12	-0.49*	.00

Note. Δ_{12} = change score. Group is 1 = volunteering group, 0 = comparison group and gender is 1 = male, 0 = female. Letters in parentheses correspond to pathways depicted in Figure 1.

* $p < .05$

Discussion

Summary of Findings

The present findings support three conclusions. The first conclusion is that *both* personality traits and SEB skills are important for understanding college students' civic and political engagement. In general, strength in social engagement, cooperation, and innovation skills and high levels of extraversion, agreeableness, and openness to experience were associated with several prosocial and political civic facets. Strength in self-management skills were associated with greater prosocial civic engagement but less political civic engagement while higher levels of conscientiousness were associated with less political civic engagement. Higher levels of emotional resilience skills and negative emotionality were associated with lower levels of particular civic and political facets. These findings parallel other studies on personality traits and civic engagement (Ackermann, 2019; Beck & Jackson, 2022; Brandt et al., 2022; Furnham & Cheng, 2019; Mondak et al., 2010; Omoto et al., 2010; Stahlmann et al., 2023) and slightly differ from a recent study that found high school students' self-management skills were positively associated with prosocial civic engagement and not associated with political civic engagement (Soto et al., 2022b).

Furthermore, findings from incremental validity analyses indicated that both personality traits and SEB skills provide unique information when predicting prosocial civic facets. Thus, both how a college student typically behaves and how they can behave when needed matter for understanding their endorsement of social responsibility values and the frequency of their informal helping. For political civic facets, however, neither personality traits nor SEB skills contributed unique predicted variance. This finding suggests that college students' tendencies and capacities may be interchangeable when it comes to predicting political behaviors. Soto and

colleagues (2022b) found that high school students' SEB skills and personality traits provide incremental validity over the other when predicting both prosocial and political civic engagement. This discrepancy with the literature may indicate developmental differences, though this possibility should be explored with longitudinal data from the same sample of participants. Political engagement demonstrates normative growth after age 18 as more opportunities such as voting become available to youth (Wray-Lake et al., 2020). Earlier in adolescence, youth are more marginalized from the political system, and, thus, SEB skills may take on greater importance when political engagement is not normative and as easily accessible.

The second conclusion drawn from the present research is that volunteering and service-learning programs on college campuses attract emerging adults who are more conscientious and have high SEB skill levels. More conscientious students tend to be organized, hard-working, and dependable, and they consequently may be better equipped to manage and fulfill their commitments across academic, occupational, social, and civic domains. Participants who were engaged in service-learning and volunteering also reported higher levels of all SEB skills, except for social engagement skills, than participants in the comparison sample. These findings complement quasi-experimental work that found strength in SEB skills predicted of the number of hours that college students volunteered during the COVID-19 pandemic (Sewell et al., 2023). College students may seek out civic opportunities to use their existing SEB skillsets and these skillsets, in turn, may help them sustain their involvement in prosocial civic activities.

However, an implication of this finding is that some college students may be missing out on important civic opportunities that can help them more deeply engage with their coursework and promote later civic engagement (Celio et al., 2011). This implication underscores the need for civic opportunities on college campuses that are accessible to students with low skill levels

and opportunities for emerging adults to develop the skills associated with selecting into these more "high skill" civic opportunities.

Finally, the third conclusion is that engaging in volunteering and service-learning does not necessarily entail positive SEB skill or personality trait development. Participants who engaged in volunteering and service-learning demonstrated declines in cooperation skills, extraversion, and openness to experience, relative to the comparison group, across the study duration. These findings differ from several studies that suggest volunteering and service-learning help college students develop social and cooperative competencies (Celio et al., 2011; Gordon et al., 2022; Khasanzyanova, 2017; Salam et al., 2019). Declines in cooperation skills, extraversion, and openness to experience may reflect more challenging or negative experiences than what students expected when they enrolled in the service-learning and volunteering program. For example, the volunteering experience may have entailed collaboration challenges such as unresponsive group members or community organizations, lack of collaboration follow-through from students themselves, minimal collaboration opportunities among students and community organizations, or contentious team dynamics. If participants' dispositions or skillsets did not engender a positive or anticipated outcome, participants may have reevaluated their tendencies to be energetic, sociable, assertive, curious, and creative as well as their teamwork, perspective-taking, trust, and cultural competence skill levels.

Other contextual factors of the volunteering experience may also explain declines in cooperation skills and extraversion. For example, some of the volunteering projects required minimal interactions with others such as gardening, creating bibliographies, and organizing/sorting materials (See Appendix). In addition, because of the COVID-19 pandemic, some volunteer projects, including ones that involved interactions with others, were virtual and

could be done from home. Although participants self-selected their volunteer projects, selection was on a first-come-first-served basis. Thus, it may be possible that some students who were more extraverted and/or had higher levels of cooperation skills did not participate in projects that aligned with their strengths, and declines reflect negative evaluations of their volunteering experience.

Broader Implications

These findings highlight the importance of utilizing multidimensional measures of personal qualities to understand emerging adults' civic engagement and also underscore the importance of assessing *both* SEB skills and personality traits. For example, voting intentions were predicted by high levels of cooperation skills but not agreeableness, and both in-person and online activism were predicted by high levels of openness to experience but not innovation skills. These patterns of results indicate that different facets of civic engagement have different SEB skill and personality trait correlates. In addition, they indicate that for some civic and political activities what an emerging adult can do when needed matters for their engagement but for other activities what they tend to do is very important. These results also suggest equifinality: Youth possess diverse skillsets and dispositions, and these psychological assets support a variety of civic activities.

These findings also highlight that simply engaging in service-learning and volunteering may not bring about positive SEB skill or trait development. Rather, the contextual and experiential elements of the volunteering experience may play a larger role in skill and trait change. Although service-learning and volunteering programs may attract college students with high skill levels, youth in these programs may need more intentional instruction, training, and practice in order to further develop their SEB skills (Soto et al., 2020). Furthermore, substantial

time investments as well as greater psychological investment in the role of volunteer may be needed to bring about trait change (Bleidorn et al., 2013; Lodi-Smith & Roberts, 2007).

Strengths, Limitations, and Future Directions

Though this study has multiple methodological strengths such as its use of pre- and post-tests, inclusion of a comparison sample, and assessment of a variety of prosocial and political civic engagement measures, there are also several limitations. First, participants were not randomly assigned to engage in the service-learning and volunteering program. Though this study was able to investigate selection effects, random assignment would allow for stronger casual inferences about the impact of service-learning and volunteering on college students' SEB skills and personality traits. Second, this study only used one post-test measure of SEB skills and personality traits, and it is unknown whether declines in cooperation skills, extraversion, and openness are temporary dips or enduring. Third, this study did not include any measures about the context of volunteering or participants' satisfaction with the experience. Future research should include measures of these contextual and evaluative factors to better understand the mechanisms by which volunteering can impact emerging adults' SEB skills and personality traits.

Finally, the generalizability of the findings is limited to students at four-year universities in the state of Illinois and not emerging adults broadly. College students are often more civically engaged than their peers who aren't enrolled in postsecondary institutions and these differences in civic engagement are often apparent in high school (Finlay et al., 2010; Flanagan & Levine, 2010; Syvertsen et al., 2011). Future research would benefit from investigating the associations between personality traits and civic engagement in a sample of emerging adults that includes those actively enrolled in four-year and two-year institutions as well as those who are not.

Furthermore, the historical and geographical context of the data collection was in Illinois after the 2020 election. In Illinois, voting is more accessible than in other states of the US, and approximately 1/3 of votes were cast by mail in the Illinois 2020 election (Hinton, 2020). In states with more restrictive voting policies that necessitate advanced planning, SEB skills and personality traits may take on greater importance for political facets like voting and future research should explore this possibility.

Conclusion

The present research advances our understanding of the associations among personality traits, SEB skills, and civic engagement in three key ways. First, both personality traits and SEB skills offer unique insights into understanding college students' civic engagement. Second, service-learning and volunteering opportunities attract more conscientious and highly skilled college students. Third, simply engaging in service-learning and volunteering does not entail positive personality trait or SEB skill change. These findings broaden our understanding of the psychological factors associated with college students' civic engagement and underscore that not all service-learning and volunteering opportunities are supportive of positive personal development.

CHAPTER 4: BETWEEN-PERSON AND WITHIN-PERSON EFFECTS OF PERSONALITY TRAITS AND SOCIAL, EMOTIONAL, BEHAVIORAL SKILLS ON COLLEGE STUDENTS' CIVIC ENGAGEMENT

Emerging adults' civic engagement benefits communities and has the potential to benefit the individuals' engaging in civic activities. For example, civic behaviors such as volunteering, activism, and voting during emerging adulthood have been associated with educational attainment, income, physical health, and well-being (Ballard et al., 2019, 2020; Wray-Lake, DeHaan, et al., 2019; Wray-Lake, Shubert, et al., 2019). Civic behaviors are also associated with changes in character strengths such as purpose and future-mindedness (Oosterhoff, Whillock, et al., 2021). Participating in civic activities may also lead to subsequent changes in personality traits— a person's *typical* or average-level of behavior in a domain (Fleeson & Jayawickreme, 2015). For instance, a college student who consistently volunteers may become more agreeable and extraverted over time because they are consistently interacting with others in a prosocial way. Furthermore, engaging in civic activities might also lead to changes in social, emotional, and behavioral (SEB) skills— a person's *capacity* for behaviors in a domain (Soto et al., 2021). A college student who reads social-movement-related news and shares that information online may become more skilled at thinking about social issues and expressing their thoughts on the topic.

The present research explored the following questions: 1) What are the between-person associations among informal helping, online activism, in-person activism, volunteering, personality traits, and SEB skills over the course of a semester? 2) What are the cross-sectional within-person associations among civic activities, personality traits, and SEB skills? 3) What are the cross-lagged within-person associations among civic activities, personality traits, and SEB

skills? To investigate these associations, I utilized an intensive longitudinal design in which college students reported biweekly on their SEB skills, personality traits and civic activities.

Civic Behaviors among Emerging Adults in College

Civic behaviors consist of both prosocial and political actions that benefit community and society (Sherrod & Lauckhardt, 2009; Wray-Lake, Metzger, et al., 2017). Prosocial civic actions include both formal helping such as volunteering with community organizations and informally helping classmates, neighbors, and family members (Wray-Lake, Metzger, et al., 2017). Political actions include standard political behaviors— which occur within formal institutions and include voting, working on a political campaign, and writing to public officials— and social movement related behaviors, such as protesting and boycotting, that challenge existing systems and typically occur outside of formal institutions (Amnå, 2012; Kornbluh et al., 2022; Watts & Flanagan, 2007). Prosocial civic actions and political actions are distinct behaviors with different contextual and individual-level antecedents and consequences and different developmental trajectories during emerging adulthood (Ballard et al., 2019, 2020; Metzger et al., 2018, 2019; Obradović & Masten, 2007; Sherrod & Lauckhardt, 2009; Wray-Lake & Sloper, 2016; Wray-Lake et al., 2020).

Emerging adulthood is a critical time to investigate civic behaviors. For one, compared to younger adolescents, emerging adults have greater access to political activities such as voting, and, consequently, political engagement demonstrates normative growth during emerging adulthood (Wray-Lake et al., 2020). In addition, identity exploration is a hallmark of emerging adulthood (Arnett, 2006), and engaging— or not engaging— in different kinds of civic behaviors is one way that emerging adults explore their developing civic identity. Indeed, scholars

speculate that civic identity development during emerging adulthood is foundational for later civic participation (Finlay et al., 2010; Flanagan & Levine, 2010).

Colleges and universities are a particularly important context for civic development during emerging adulthood, and institutions of higher education often have multiple opportunities through which emerging adults can become civically and politically involved (Núñez & Flanagan, 2014). For example, coursework that includes intergroup contact and peer discussion and extracurriculars such as community-based research or politically oriented student organizations are means through which college students gain civic competencies and knowledge and contribute to their communities (Johnson, 2015; Núñez & Flanagan, 2014). Social media and the internet are also important contexts for civic development during emerging adulthood (Flangan & Levine, 2010), and evidence suggests that a substantial percentage of emerging adults' activism activities have occurred online in recent years (Wilf et al., 2023).

The final key consideration for investigating college students' civic behaviors includes the timing of data collection. For example, *when* in the election cycle data collection occurs likely affects the degree to which young people are engaging in standard political behaviors. In contrast, activism-related behaviors and prosocial civic behaviors are not as intrinsically tied to election cycles and are often prompted by sociohistoric events at the community-level (e.g., a controversial speaker being invited to speak at a university), at the national-level (e.g., U.S. Supreme Court rulings) or international level (e.g., the COVID-19 pandemic). Because there was no national election during data collection, I focused on college students' informal helping, volunteering, and online and in-person activism behaviors.

During data collection for this study, there were several national events that may have sparked college students' online and in-person activism behaviors including 1) protests across

many cities in the US for the murder of Tyre Nichols by Memphis police officers (Hardwick, 2023), 2) the indictment of former president Donald Trump for falsifying business records (Quinn & Kates, 2023), 3) the mass shooting at a private Christian school in Nashville, TN, and the subsequent expulsion of two democratic members of the Tennessee House of Representatives for protesting the shooting on the House floor (Wolfe & Razek, 2023), 4) the contradictory lawsuits from Texas and Washington regarding the federal approval and legitimacy of mifepristone, a medication used for abortions (McCammon, 2023), and 5) the approval of an oil drilling project in Alaska by President Joe Biden (Hernandez, 2023).

Civic Engagement, Personality Traits, and SEB Skills

Personal qualities including self-regulatory, social, cooperative, and sociocognitive competencies have been theorized to play an important supportive role in the development of social responsibility and civic engagement (Kirlin, 2003; Wray-Lake & Syvertsen, 2011). Recent empirical work shows promising evidence that these competencies are cross-sectionally associated with adolescent and emerging adult civic engagement (Carlo et al., 2005; Hardy et al., 2015; Le et al., 2022; Metzger et al., 2018; Riley et al., 2021; Soto et al., 2022b). Personality traits and social, emotional, and behavioral (SEB) skills are two types of personal qualities that capture a breadth of psychological content and may be particularly important for understanding the development of civic engagement.

Defining Personality Traits and SEB Skills

Personality traits are an individuals' characteristic patterns of thoughts, feelings, and behaviors (Roberts & Yoon, 2022). Personality traits capture what a person *tends to do*, averaged across situations (Fleeson & Jayawickreme, 2015). SEB skills can be defined as a person's capacities to maintain social relationships, regulate emotions, and manage goal- and learning-

directed behaviors, and, in contrast to personality traits, SEB skills capture what a person *can do* when the need arises (Soto et al., 2021). For example, a college student who is usually disorganized might exhibit exceptional time management skills during final exams week.

Due to their shared psychological content, personality traits and SEB skills can be organized across five parallel domains (Abrahams et al., 2019; Napolitano et al., 2021; Primi et al., 2019; Soto et al., 2021; Walton et al., 2021). The Big Five personality traits capture individuals' levels of conscientiousness (e.g., diligent, responsible), extraversion (e.g., sociable, energetic), agreeableness (e.g., warm, kind), negative emotionality vs. emotional stability (e.g., anxious, self-doubting), and openness to experience (e.g., creative, inquisitive) (John et al., 2008). SEB skills can similarly be organized across five domains capturing self-management skills (e.g., task management), social engagement skills (e.g., leadership), cooperation skills (e.g., perspective-taking), emotional resilience skills (e.g., stress regulation), and innovation skills (e.g., creative skill) (Soto et al., 2022a). While both SEB skills and personality traits can be structured within similar five-domain frameworks, they are not identical constructs, and they contribute unique information when predicting consequential outcomes including achievement, relationship satisfaction, well-being, and civic engagement (Lechner et al., 2022; Soto et al., 2022b, 2023; Yoon et al., 2024).

Personality Traits and SEB Skills' Connections to Civic Engagement

Personality traits likely prospectively predict engaging in civic actions as individuals with certain dispositions seek out contexts to engage in behaviors that they enjoy and are typical for them. For example, individuals who score high on extraversion may be more likely to engage in political and civic behaviors, such as collective organizing and volunteering, because they can interact with others through these actions (Mondak et al., 2010). Research indicates that higher

levels of agreeableness are associated with prosocial civic behaviors, openness to experience is associated with conventional and social movement-related political behaviors, and extraversion is associated with all forms of civic action (Ackermann, 2019; Beck & Jackson, 2022; Brandt et al., 2022; Furnham & Cheng, 2019; Mondak et al., 2010; Omoto et al., 2010; Stahlmann et al., 2023).

Beyond cross-sectional and prospective associations, engaging in civic and political behaviors may also lead to changes in trait levels. No research has explicitly explored this possibility. However, the social investment principle posits that commitment to social roles, and subsequent behavior changes to meet the perceived expectation for the roles, can engender personality change (Roberts & Wood, 2006). Investment in social roles, including the role of spouse, parent, and employee, promote higher levels of conscientiousness, agreeableness, and emotional stability (Bleidorn et al., 2013; Lodi-Smith & Roberts, 2007). The transition and commitment to the adult roles of citizen and community member, through engaging in civic activities, likely occurs alongside personality maturation during emerging adulthood (Bleidorn, 2015).

Finally, the distinction between what someone tends to do (their traits) and what they can do (their SEB skills) may also be particularly important in the civic domain because civic action can sometimes be in response to novel or challenging contextual demands such as natural disasters, grassroots campaigns, and instances of injustice. In these situations, SEB skills can help individuals behave in uncharacteristic ways so that they can rise to the occasion and improve their communities (Napolitano et al., 2024; Soto et al., 2021). Cross-sectional research indicates that all SEB skills (i.e., self-management, social engagement, cooperation, emotional resilience, and innovation) and civic engagement are positively associated (Soto et al., 2022b),

and one short-term longitudinal study found that particular SEB skill facets such as perspective-taking, abstracting thinking, and stress regulation prospectively predicted college students' volunteering (Sewell et al., 2023). Less is known about how engaging in prosocial and political civic behaviors promotes the development of SEB skills and the dynamic processes between SEB skills and civic engagement over time.

Present Study

The purpose of this study was to understand between-person and within-person associations between college students' 1) personality traits and civic activities and 2) their SEB skills and civic activities over the course of a semester. To investigate these associations, I utilized data that was collected from college students weekly across a semester. Based on the literature, I hypothesized that more extraverted, agreeable, and open students would engage in more volunteering, informal helping, and activism. I also expected that students who score higher in self-management, social engagement, cooperation, emotional resilience, and innovation skills would engage in more civic activities. Because this is the first study to examine within-person associations among personality traits, SEB skills, and civic activities, I did not formally hypothesize about effects and consider these analyses exploratory.

Method

Participants and Procedure

Participants were recruited from large lecture courses in psychology and educational psychology at the University of Illinois at Urbana-Champaign and Colby College. The first survey was completed by 331 college students between the ages of 18 and 25 (M_{age} = 20.0, SD_{age} = 1.15). The sample was predominantly female (79.8%) with 18.1% identifying as male, 1.8% identifying as nonbinary, and 0.30% identifying as transgender. The sample was 61.3% White,

22.3% Asian, 16.0% Hispanic/Latinx, 7.9% Black, 1.8% Middle Eastern, 0.6% Native American, 0.6% Pacific Islander, and 2.1% Other racial or ethnic background.

All participants were participating in a larger study that assessed SEB skills, personality traits, and a variety of outcomes[3] every week for 16 weeks between January and May 2023. Students were provided with a link to a subpage of PersonalityAssessor.com and were asked to create an account to participate in the research. Participants were instructed that they should complete one survey each week during the 16-week study period. At Time 1, participants completed self-report measures of their SEB skills, personality traits, and civic activities as well as provided demographic information. On all subsequent waves, participants provided self-reports of their SEB skills and personality traits. On odd waves, participants completed self-reports of their civic activities. Because participants only completed assessments of civic activities on odd weeks, I similarly used SEB skill and personality trait data from those weeks. Participants could complete surveys once every 5 days. If participants had not submitted a survey 6 days after their last survey submission, they were sent an automated email reminder. Participants received extra course credit in exchange for their participation in the research. The study procedures were approved by the Colby Institutional Review Board (#2022-103).

On average, participants completed 8.7 times (SD = 5.5) of data collection, and 18.1% of the original sample completed all 16-times. Younger participants completed 1.2 times more than older participants ($p < .001$), and female participants completed 1.5 times more than male participants ($p = .045$). Participants with higher semester-level self-management skills ($\beta = 1.05$, $p < .001$) and conscientiousness ($\beta = 1.33$, $p < .001$) also completed more times. Participants who

[3] Because these outcomes aren't of relevance for this study, they are not reported in the measures.

engaged in more online activism (β = -0.91, p = .003), informal helping (β = -0.80, p = .009), and volunteering (β = -0.71, p = .019) across the semester completed fewer times. No other study variables predicted study retention.

Measures

Personality traits

Personality traits were measured at every time by the 30-item Big Five Inventory-2-Short (BFI-2-S; Soto & John, 2017b). The BFI-2-S measures the Big Five personality traits— conscientiousness, extraversion, agreeableness, negative emotionality (vs. emotional stability), and openness— using six items for each trait. Participants indicated whether items are characteristic of them. An example item for conscientiousness is "I am someone who… Is reliable, can always be counted on" (1 = Disagree strongly and 5 = Agree strongly). Fifteen items in the BFI-2-S were reverse scored. Each trait score was calculated by averaging its constituent items. Negative emotionality items were scored and averaged such that higher scores indicated greater emotional stability. Alpha reliabilities ranged between .77 and .85 across waves (M = .81) for conscientiousness, .76 and .81 (M = .79) for extraversion, .75 and .81 (M = .79) for agreeableness, .79 and .84 (M = .83) for emotional stability, and .75 and .88 (M = .84) for openness.

SEB Skills

Social, emotional, and behavioral (SEB) skills were measured at every time by the 45-item Behavioral, Emotional, and Social Skills Inventory (BESSI-45; Sewell et al., under review). The BESSI-45 measures five broad SEB skill domains— self-management skills, social engagement skills, cooperation skills, emotional resilience skills, and innovation skills. Each SEB skill domain was measured by nine items, and participants indicated how well they can do

each action described in the item. An example item for the emotional resilience domain was "Control my temper." (1 = Not at all well; 2 = Not very well; 3 = Pretty well; 4 = Very well; 5 = Extremely well). Each SEB skill domain score was calculated by averaging its constituent items. Alpha reliabilities ranged between .82 and .91 across waves (M = .88) for self-management skills, .84 and .91 (M = .88) for social engagement skills, .78 and .90 (M = .86) for cooperation skills, .84 and .92 (M = .90) for emotional resilience skills, and .80 and .91 (M = .87) for innovation skills.

Informal Helping

Informal helping was assessed at the first data collection time and then every other measurement occasion (e.g., T1, T3, T5, etc.) using four items from a multidimensional measure of youth civic engagement (Wray-Lake, Metzger, et al., 2017). Each item asked participants to report how often they had provided help to family, peers, and neighbors in the past month. An example item is "Provide childcare or babysit for no pay" (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Very Often). Items were averaged with higher scores indicating greater informal helping, and the alpha reliability ranged between .60 to .74 across waves (M = .68).

Activism

Online and in-person activism were assessed at the first data collection time and then every other measurement occasion (e.g., T1, T3, T5, etc.) using two items adapted from previous research (Hope et al., 2016). One item asked participants how many hours in the past month they spent participating in political or social movements on an online platform and gave examples such as "reading movement related posts, posting or resharing political/social movement related content on Twitter, Facebook, Instagram, etc." The other item asked how many hours in the past

month they spent participating in political or social movements in person and gave examples such as “attending protests, meetings, sit-ins, etc”. Responses ranged from 0 = 0 hours, 1 = 1-2 hours, 2 = 3-4 hours, 3 = 5-6 hours, 4 = 7-8 hours, 5 = 9-10 hours, and 6 = 11 hours or more.

Volunteering

Volunteering was assessed at the first data collection time and then every other measurement occasion (e.g., T1, T3, T5, etc.) by a single item from a multidimensional measure of youth civic engagement (Wray-Lake, Metzger, et al., 2017). The item asked participants to indicate how many hours they spent volunteering to help other people or to help make their community a better place. Responses ranged from 0 = 0 hours, 1 = 1-2 hours, 2 = 3-4 hours, 3 = 5-6 hours, 4 = 7-8 hours, 5 = 9-10 hours, and 6 = 11 hours or more.

Data Analysis Plan

To investigate both between-person and within-person associations between personality traits and civic activities and SEB skills and civic activities, I utilized random intercept cross-lagged panel models (RI-CLPMs; Hamaker et al., 2015). RI-CLPMs are preferable to standard cross-lagged panel models because they account for time-invariant stability of the variables of interest (Hamaker et al., 2015). Thus, the RI-CLPMs better isolate within-person processes from stable between-person effects in longitudinal data. Parsing out within-person processes from between person stability is particularly important to consider in the context of this research because college students’ personality traits and SEB skills demonstrate substantial retest stabilities across a few months (Sewell et al., under review; Soto & John, 2017b).

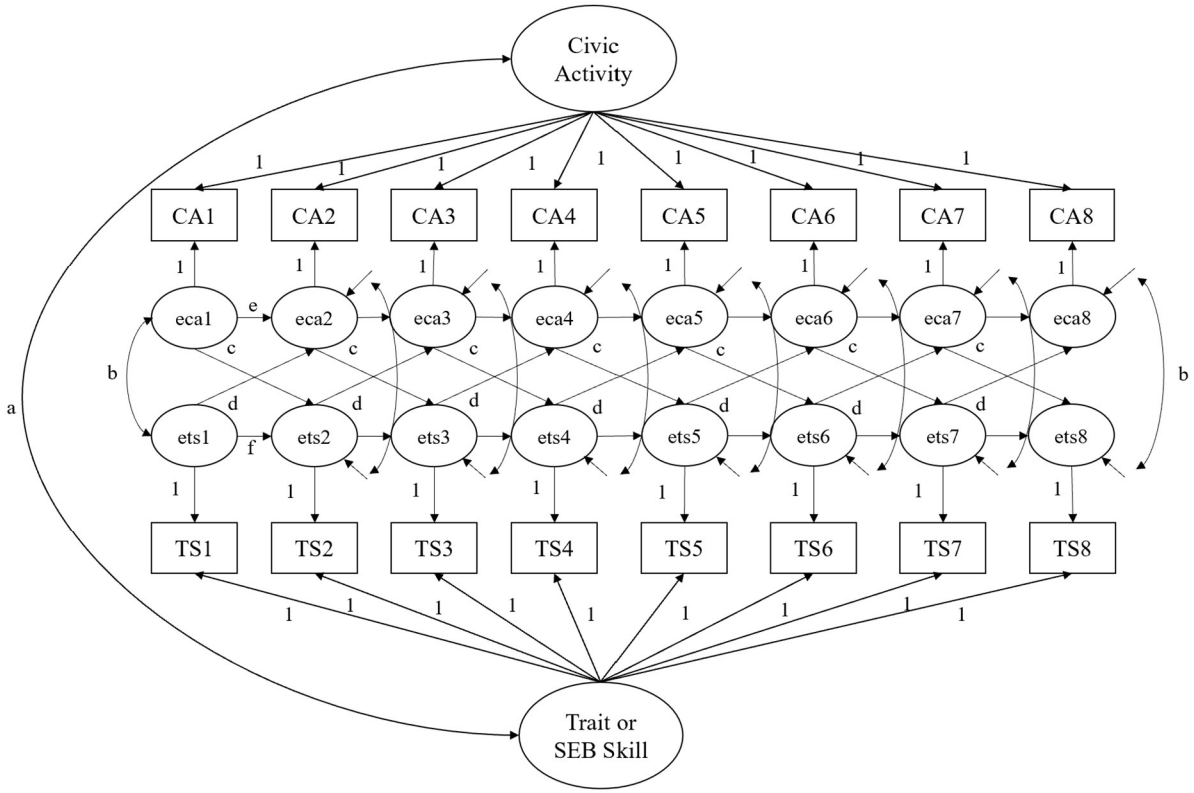
Similar to prior research (Oosterhoff, Whillock, et al., 2021), each personality trait (conscientiousness, extraversion, agreeableness, negative emotionality, and openness) or SEB skill (self-management, social engagement, cooperation, emotional resilience, and innovation)

was modeled with each civic activity (informal helping, in-person activism, online activism, volunteering) separately. Figure 2 displays a depiction of the RI-CLPM. I specifically focus on parameters a, b, c, and d of the figure. Parameter a is the covariance between intercepts of latent civic activities and latent personality traits/SEB skills. This covariance represents the between-person effects across the study duration. Parameter b represents covariance between the residuals of civic activities and personality traits/SEB skills and indicates within-person biweekly effects. Parameters c and d represent the cross-lagged effects between the residuals of biweekly civic activities and personality traits/SEB skills. For parsimony, I constrained each covariance between residuals to be equal, autoregressive path to be equal, and cross-lagged effect to be equal given that I do not expect significant differences in these estimates across the study period. The variances of the residuals were also constrained to equality as suggested by prior research (Berry & Willoughby, 2017).

All models included age and gender (male = -1, female =1) as covariates. All analyses were conducted in R using the *lavaan* package (Rosseel, 2012), and full information maximum likelihood (FIML) estimation was utilized to account for missing data. A Comparative Fit Index (CFI) of $\geq .90$ and a root mean square error of approximation (RMSEA) of $\leq .08$ were used to determine whether model fit is adequate (Kline, 2016).

Figure 2

Depiction of the Random-Intercept Cross Lagged Panel Model



Note. CA = civic activity at each wave, TS = trait or SEB skill at each wave, eca = residual of civic activity, ets = residual of trait or SEB skill. Parameters noted with a) represent between person effects, b) biweekly within-person effects, c) civic activity → personality trait or SEB skill within-person cross-lagged effects, d) personality trait or SEB skill → civic activity within-person cross-lagged effects, e) civic activity autoregressive effects, and f) personality trait or SEB skill autoregressive effects.

Results

Descriptive Statistics and Bivariate Correlations

Table 10 presents the observed semester-level descriptive statistics and bivariate correlations among SEB skills, personality traits, and civic activities. In general, participants reported moderate levels of informal helping and infrequent online activism, in-person activism, and volunteering. Civic activities ranged from weakly to moderately positively correlated with each other. SEB skills were moderately positively correlated with each other. Most personality traits were moderately positively correlated with each other except for openness. SEB skill and personality trait pairs (e.g., self-management and conscientiousness) were strongly correlated.

Higher observed semester-levels of all SEB skills were correlated with higher observed semester-levels of informal helping. Higher observed semester-levels of self-management, social engagement, and cooperation skills were associated with more volunteering. Higher observed semester-levels of innovation skills were associated with more online activism, while higher levels of social engagement skills and innovation skills were associated with more in-person activism. Higher observed semester-levels of conscientiousness, extraversion, and agreeableness were associated with higher levels of informal helping and volunteering across the semester. Higher observed semester-levels of conscientiousness were associated with less online activism across the semester, while higher levels of openness were associated with more online activism. Observed semester-level personality traits were not associated with in-person activism.

Table 10

Descriptive Statistics and Bivariate Correlations among Semester-Level SEB Skills, Personality Traits, and Civic Activities

	M	*SD*	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1. Self-management	3.62	0.61													
2. Social engagement	3.30	0.62	.40**												
3. Cooperation	3.78	0.50	.46**	.55**											
4. Emotional resilience	3.19	0.65	.51**	.52**	.56**										
5. Innovation	3.34	0.56	.34**	.41**	.40**	.41**									
6. Conscientiousness	3.46	0.70	.84**	.33**	.33**	.37**	.18*								
7. Extraversion	3.15	0.70	.24**	.79**	.39**	.37**	.16*	.30**							
8. Agreeableness	3.77	0.59	.31**	.27**	.73**	.40**	.17*	.34**	.26**						
9. Emotional stability	2.91	0.78	.30**	.37**	.28**	.80**	.20**	.29**	.39**	.25**					
10. Openness	3.64	0.68	.06	.13*	.22**	.14*	.73**	.01	.05	.18*	.03				
11. Online activism	0.92	1.07	-.09	.04	.04	-.01	.13*	-.11*	.01	-.02	-.10	.12*			
12. In-person activism	0.25	0.57	.06	.14*	.09	.10	.14*	.02	.11	.01	.02	.05	.36**		
13. Informal helping	3.01	0.74	.22**	.30**	.20**	.15*	.12*	.24**	.28**	.12*	.07	-.03	.18*	.30**	
14. Volunteering	1.02	1.26	.13*	.11*	.11*	.03	-.01	.17*	.21**	.13*	.05	-.08	.11*	.43**	.41**

* $p < .05$, ** $p < .001$

RI-CLPMS

Next, I constructed RI-CLPMs to investigate the between-persons semester-level effects, the within-person biweekly effects, and the within-person biweekly cross-lagged effects of each personality trait and civic action and SEB skill and civic action separately. Table 11 presents the fit statistics of these models and Table 12 presents the parameter estimates.

Table 11

Fit Statistics for Random Intercept Cross-Lagged Panel Models (RI-CLPMs)

Model	X^2	*Df*	CFI	TLI	RMSEA	SRMR
Informal helping and self-management skills	337	165	0.94	0.94	0.06	0.09
Informal helping and social engagement skills	394	165	0.92	0.93	0.07	0.08
Informal helping and cooperation skills	382	165	0.92	0.92	0.06	0.10
Informal helping and emotional resilience skills	383	165	0.93	0.93	0.06	0.09
Informal helping and innovation skills	380	165	0.92	0.93	0.06	0.10
Informal helping and conscientiousness	352	165	0.94	0.94	0.06	0.08
Informal helping and extraversion	313	165	0.95	0.96	0.05	0.08
Informal helping and agreeableness	350	165	0.93	0.94	0.06	0.09
Informal helping and emotional stability	307	165	0.95	0.96	0.05	0.09
Informal helping and openness	406	165	0.92	0.93	0.07	0.09
Online activism and self-management skills	417	165	0.91	0.92	0.07	0.09
Online activism and social engagement skills	413	165	0.91	0.92	0.07	0.08
Online activism and cooperation skills	397	165	0.91	0.91	0.07	0.09
Online activism and emotional resilience skills	432	165	0.91	0.92	0.07	0.08
Online activism and innovation skills	451	164	0.90	0.91	0.07	0.09
Online activism and conscientiousness	350	165	0.93	0.94	0.06	0.07
Online activism and extraversion	345	165	0.94	0.95	0.06	0.08
Online activism and agreeableness	371	165	0.92	0.93	0.06	0.07
Online activism and emotional stability	351	165	0.94	0.94	0.06	0.09
Online activism and openness	422	165	0.91	0.92	0.07	0.08
In-person activism and self-management skills	346	165	0.93	0.94	0.06	0.12
In-person activism and social engagement skills	387	165	0.92	0.93	0.07	0.11
In-person activism and cooperation skills	353	165	0.92	0.93	0.06	0.12
In-person activism and emotional resilience skills	357	165	0.93	0.94	0.06	0.13
In-person activism and innovation skills	436	165	0.90	0.91	0.07	0.12
In-person activism and conscientiousness	313	165	0.94	0.94	0.06	0.12
In-person activism and extraversion	317	165	0.95	0.95	0.05	0.12
In-person activism and agreeableness	382	165	0.91	0.92	0.06	0.11
In-person activism and emotional stability	317	165	0.95	0.95	0.05	0.12
In-person activism and openness	419	165	0.91	0.92	0.07	0.13
Volunteering and self-management skills	322	165	0.94	0.95	0.05	0.10
Volunteering and social engagement skills	324	165	0.94	0.95	0.06	0.09

Table 11 (cont.)

Model	X^2	*Df*	CFI	TLI	RMSEA	SRMR
Volunteering and cooperation skills	344	165	0.92	0.93	0.06	0.10
Volunteering and emotional resilience skills	338	165	0.94	0.94	0.06	0.10
Volunteering and innovation skills	392	165	0.92	0.92	0.07	0.10
Volunteering and conscientiousness	306	165	0.95	0.95	0.05	0.08
Volunteering and extraversion	305	165	0.95	0.96	0.05	0.09
Volunteering and agreeableness	329	165	0.94	0.94	0.06	0.09
Volunteering and emotional stability	277	165	0.96	0.96	0.05	0.09
Volunteering and openness	398	165	0.92	0.93	0.07	0.09

Note. CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root-mean-square error of approximation; SRMR = standardized root mean square residual. All *p*-values for the chi-square test statistics were < .001. One equality constraint in the online activism and innovation RI-CLPM was released to improve model fit.

Informal helping, Personality Traits, and SEB Skills

All RI-CLPMs fit the data adequately. After accounting for gender and age, there were several significant, positive latent intercept covariances, indicating between-person associations between personality traits and informal helping as well as SEB skills and informal helping. As shown in Table 12, those who engaged in more informal helping across the semester also had higher semester-level conscientiousness and extraversion. In addition, higher semester-level self-management, social engagement, cooperation, and emotional resilience skills were associated with more informal helping across the semester.

There were also several significant, positive covariances among the residuals, indicating within-person biweekly effects. College students who had higher biweekly levels of all SEB skills, relative to their own semesterly average, also engaged in more informal helping that week

relative to their own semesterly average. Participants with relatively[4] higher levels of trait emotional stability in particular week also engaged in relatively more informal helping that week. There were no significant cross-lagged effects.

[4] I use "relatively" as shorthand for "relative to one's own average" here and elsewhere for readability's sake.

Table 12

Unstandardized Parameter Estimates and Standard Errors for RI-CLPMs of Civic Activities, SEB Skills, and Personality Traits

	Between-Person Effect (a)		Biweekly Within-Person Effect (b)		CA Cross-Lagged Effect (c)		TS Cross-Lagged Effect (d)		CA Auto-regressive Effects (e)		TS Auto-regressive Effects (F)	
Model	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*	*B*	*SE*
Informal Helping												
Self-management	0.08**	0.03	0.01**	0.00	0.01	0.02	-0.04	0.06	0.17**	0.04	0.24**	0.04
Social engagement	0.13**	0.03	0.01**	0.00	0.00	0.02	0.01	0.06	0.17**	0.04	0.32**	0.04
Cooperation	0.05*	0.02	0.02**	0.00	0.01	0.02	0.00	0.06	0.17**	0.04	0.16**	0.04
Emotional resilience	0.07*	0.03	0.02**	0.00	-0.01	0.02	0.04	0.06	0.17**	0.04	0.24**	0.04
Innovation	0.04	0.02	0.01**	0.00	-0.02	0.02	-0.04	0.06	0.17**	0.04	0.28**	0.04
Conscientiousness	0.11**	0.03	0.00	0.00	0.02	0.02	0.05	0.06	0.17**	0.04	0.22**	0.04
Extraversion	0.15**	0.03	0.00	0.00	-0.01	0.02	0.04	0.06	0.17**	0.04	0.22**	0.04
Agreeableness	0.03	0.02	0.00	0.00	0.01	0.02	0.01	0.06	0.17**	0.04	0.14**	0.04
Emotional stability	0.05	0.03	0.02**	0.01	-0.01	0.02	0.03	0.06	0.17**	0.04	0.23**	0.04
Openness	0.00	0.03	0.00	0.01	-0.01	0.02	-0.04	0.06	0.17**	0.04	0.21**	0.04
Online Activism												
Self-management	-0.04	0.03	0.00	0.01	-0.01	0.01	-0.13	0.08	0.20**	0.03	0.24**	0.04
Social engagement	0.04	0.03	0.00	0.01	0.00	0.01	-0.08	0.08	0.19**	0.03	0.32**	0.04
Cooperation	0.03	0.03	0.00	0.01	-0.01	0.01	-0.19*	0.08	0.19**	0.03	0.17**	0.04
Emotional resilience	0.02	0.03	0.00	0.01	0.01	0.01	-0.16*	0.08	0.19**	0.03	0.24**	0.04
Innovation	0.09**	0.03	0.00	0.01	-0.04**	0.01	-0.10	0.07	0.19**	0.03	0.26**	0.04
Conscientiousness	-0.08*	0.04	0.00	0.01	0.00	0.01	0.10	0.08	0.19**	0.03	0.22**	0.04
Extraversion	0.02	0.04	0.00	0.01	0.02	0.01	0.03	0.08	0.20**	0.03	0.22**	0.04
Agreeableness	0.01	0.03	0.00	0.01	0.01	0.01	0.07	0.08	0.19**	0.03	0.14**	0.04
Emotional stability	-0.03	0.04	0.00	0.01	-0.01	0.01	-0.08	0.07	0.19**	0.03	0.23**	0.04
Openness	0.11**	0.04	0.00	0.01	0.01	0.01	0.11	0.07	0.20**	0.03	0.21**	0.04
In-Person Activism												
Self-management	0.00	0.02	0.00	0.00	0.01	0.02	0.03	0.06	0.20**	0.05	0.24**	0.04
Social engagement	0.05*	0.02	0.00	0.00	0.01	0.02	0.06	0.06	0.20**	0.05	0.31**	0.04

Table 12 (cont.)

	Between-Person Effect (a)		Biweekly Within-Person Effect (b)		CA Cross-Lagged Effect (c)		TS Cross-Lagged Effect (d)		CA Auto-regressive Effects (e)		TS Auto-regressive Effects (F)	
Cooperation	0.02	0.02	0.01	0.00	0.00	0.02	0.09	0.06	0.20**	0.05	0.17**	0.04
Emotional resilience	0.05*	0.02	0.00	0.01	0.05*	0.02	0.14*	0.06	0.20**	0.05	0.24**	0.04
Innovation	0.04*	0.02	0.00	0.00	0.01	0.02	0.08	0.06	0.20**	0.05	0.28**	0.04
Conscientiousness	-0.01	0.02	0.00	0.00	0.01	0.02	0.01	0.06	0.20**	0.05	0.22**	0.04
Extraversion	0.05*	0.02	0.00	0.00	-0.01	0.02	0.10	0.06	0.20**	0.05	0.22**	0.04
Agreeableness	-0.01	0.02	0.00	0.00	0.02	0.02	0.18**	0.06	0.20**	0.05	0.14**	0.04
Emotional stability	0.03	0.02	0.00	0.01	0.00	0.02	0.03	0.06	0.20**	0.05	0.23**	0.04
Openness	0.03	0.02	0.00	0.01	-0.02	0.02	-0.03	0.06	0.20**	0.05	0.21**	0.04
Volunteering												
Self-management	0.07	0.04	0.01	0.01	0.01	0.01	-0.09	0.12	0.44**	0.04	0.24**	0.04
Social engagement	0.06	0.04	0.01	0.01	0.01	0.01	0.19	0.12	0.44**	0.04	0.32**	0.04
Cooperation	0.06	0.03	-0.01	0.01	0.00	0.01	-0.04	0.12	0.44**	0.04	0.17**	0.04
Emotional resilience	0.04	0.04	0.01	0.01	-0.01	0.01	0.04	0.12	0.44**	0.04	0.24**	0.04
Innovation	-0.03	0.04	0.02*	0.01	0.01	0.01	0.28**	0.04	0.43**	0.04	0.28**	0.04
Conscientiousness	0.12*	0.05	-0.01	0.01	0.00	0.01	-0.07	0.12	0.45**	0.04	0.22**	0.04
Extraversion	0.15**	0.05	0.00	0.01	0.01	0.01	0.20	0.12	0.44**	0.04	0.22**	0.04
Agreeableness	0.09*	0.04	-0.02	0.01	-0.01	0.01	-0.13	0.12	0.45**	0.04	0.14**	0.04
Emotional stability	0.06	0.05	-0.01	0.01	-0.01	0.01	0.11	0.11	0.44**	0.04	0.22**	0.04
Openness	-0.06	0.05	-0.01	0.01	-0.01	0.01	0.06	0.11	0.44**	0.04	0.20**	0.04

Note. CA = Civic Activity; TS = Trait / Skill. Separate models were used for each civic activity paired with each SEB skill or personality trait. Letters in parentheses correspond to pathways depicted in Figure 2.

*$p < .05$, **$p < .001$

Online Activism, Personality Traits, and SEB Skills

All RI-CLPMs fit the data adequately, except the innovation skills and online activism model (CFI = .89., TLI = .90, RMSEA = .08, SRMR = .09). Modification indices indicated that releasing the equality constraint on the cross-lagged path from wave 5 online activism to wave 7 innovation skills would improve model fit. As shown in Table 12, there were significant latent intercept covariances among innovation skills, conscientiousness, openness, and online activism after accounting for gender and age. College students with higher semester-level innovation skills and openness also engaged in more online activism over the course of a semester. By contrast, college students with higher semester-levels of conscientiousness engaged in less online activism. There were no significant covariances among residuals.

However, there were significant cross-lagged effects. In general, college students who engaged in relatively more online activism had relatively lower levels of innovation skills in later weeks, but college students who engaged in relatively more online activism in week 5 had relatively higher levels of innovation skills in week 7 ($B = 0.19$, $SE = 0.04$, $p < .001$). College students with relatively higher biweekly levels of cooperation skills and emotional resilience skills engaged in relatively less online activism in the subsequent two weeks.

In-Person Activism, Personality Traits, and SEB Skills

All RI-CLPMs fit the data adequately. After accounting for gender and age, there were significant, positive latent intercept covariances among social engagement skills, emotional resilience skills, innovation skills, extraversion, and in-person activism (see Table 12). Participants with higher semester-level social engagement, emotional resilience, and innovation skills also engaged in more in-person activism over the course of a semester. Participants with

higher semester-level extraversion also engaged in more in-person activism over a semester. There were no significant covariances among residuals.

However, there were significant, positive cross-lagged effects. College students who engaged in relatively more in-person activism had relatively higher levels of emotional resilience skills in the following two weeks. In addition, college students who had relatively higher biweekly levels of emotional resilience skill engaged in relatively more in-person activism in the following two weeks. These two findings suggest a positive bidirectional relationship between participating in protests, demonstrations, meetings, and other collective organizing activities and emotional resilience skills. Finally, participants with relatively higher biweekly levels of agreeableness engaged in relatively more in-person activism in the subsequent two weeks.

Volunteering, Personality Traits, and SEB Skills

All RI-CLPMs fit the data adequately. As shown in Table 12, there were significant, positive latent intercept covariances among conscientiousness, extraversion, agreeableness, and volunteering after accounting for gender and age. Participants with higher semester-level conscientiousness, extraversion, and agreeableness also engaged in more volunteering over the course of a semester. There were no significant latent intercept covariances among SEB skills and volunteering.

However, there was a significant, positive residual covariance between innovation skills and volunteering, indicating within-person biweekly effects. Those with relatively higher biweekly levels of innovation skills also engaged in relatively more volunteering. There was also one significant, positive cross-lagged effect such that participants who had relatively higher biweekly levels of innovation skills engaged in relatively more volunteering in the following two weeks. There were no other significant biweekly covariances or cross-lagged effects.

Discussion

Summary of Findings

The present results support two key conclusions about the associations among personality traits, SEB skills, and civic engagement. First, there were significant between-person effects among personality traits, SEB skills, and civic activities. Consistent with my hypotheses and with the literature (Ackermann, 2019; Beck & Jackson, 2022; Brandt et al., 2022; Carlo et al., 2005; Furnham & Cheng, 2019; Mondak et al., 2010; Omoto et al., 2010; Stahlmann et al., 2023), higher semester-level extraversion was associated with more prosocial civic activities and in-person activism across the semester, agreeableness was associated with more volunteering, and openness was associated with more online activism.

In addition, findings from this study indicate that higher semester-level conscientiousness was associated with more prosocial civic activities but less online activism. Despite theory suggesting that dutiful and responsible individuals may be more civically engaged, cross-sectional research suggests that higher levels of conscientiousness are associated with less political engagement and health-related civic engagement (Mondak et al., 2010; Stahlmann et al., 2023), and conscientiousness is not associated with volunteering (Ackermann, 2019; Carlo et al., 2005). However, longitudinal research has found that increases in conscientiousness are associated with increases in prosocial behavior across adolescence and into emerging adulthood (Luengo Kanacri et al., 2014). Findings from this study highlight that a more expansive view of civic engagement that is inclusive of both informal and formal (e.g., volunteering) prosocial behaviors (Wray-Lake, Metzger, et al., 2017) provide a nuanced understanding of how conscientiousness is associated with civic engagement during emerging adulthood. Furthermore,

the longitudinal assessment of volunteering and conscientiousness may provide unique insights compared to single measurement occasions.

Similar to previous research (Soto et al., 2022b) and consistent with my hypotheses, higher semester levels of all SEB skills also were associated with greater civic engagement. Specifically, higher semester-level self-management skills were associated with more informal helping, higher social engagement skills were associated with more informal helping and in-person activism, higher cooperation skills were associated with more informal helping, higher emotional resilience skills were associated more informal helping and in-person activism, and higher levels of innovation skills were associated with more online and in-person activism. However, in contrast to prior research (Sewell et al; 2023; Soto et al., 2022a, 2022b), semester-level SEB skills were not associated with more volunteering. Over the course of a semester, higher levels of volunteering may have less to do with one's capacities for behavior (skills) and more to do with tendencies (traits).

The second key conclusion from this study is that beyond between-person effects, there are within-person processes linking personality traits and SEB skills to civic activities. Both informal helping and volunteering had significant same week within-person correlations with SEB skills. All SEB skills had at least one significant same week within-person correlation with either informal helping or volunteering, while emotional stability was the only personality trait to have a within-person same week association with any civic activity. Regarding informal helping, higher levels of all SEB skills, relative to one's own average, were associated with more informal helping, relative to one's own average, in the same week. College students who feel relatively more skilled in a particular week may subsequently engage in relatively more informal helping because they feel more capable of managing their responsibilities and emotions,

engaging positively with others, and thinking through problems and complicated ideas. It is also possible that engaging in relatively more informal helping than usual may lead to relatively more positive evaluations of one's own skills. These weekly associations may accumulate over time to produce the between-person associations between SEB skills and informal helping.

In addition, relatively higher levels of emotional stability in a given week were associated with relatively more informal helping in the same week. Some theory suggests that high levels of emotional arousal may impede young people's ability to engage in prosocial behavior (Metzger et al., 2018). For college students, relatively less anxiety, depression, and emotional volatility may facilitate helping others. It could also be likely that helping others may subsequently incur immediate benefits for well-being, though a recent meta-analysis indicates that there is no link between prosocial behavior and well-being for emerging adults (Memmott-Elison et al., 2020) and a randomized control trial found that engaging in prosocial behaviors did not have a main effect on adolescent well-being (Tashjian et al., 2021).

There were also significant within-person weekly correlations between innovation skills and volunteering. On weeks where college students felt relatively more skilled at engaging with abstract ideas, generating new ideas, creating art, and understanding and appreciating different cultural backgrounds, they also engaged in relatively more volunteering during the same week. In college, many students are not only exposed to new ideas but also prompted to critically engage with these ideas in their coursework (Johnson, 2015; Núñez & Flanagan, 2014). Critical engagement with new ideas may prompt youth to take action that supports their communities. Sociopolitical development (SPD) theory posits that worldview and social analysis, particularly as it relates to inequality and systems of oppression, is an important precursor and consequence of youth's involvement in community service and sociopolitical activism (Watts & Flanagan,

2007). Consistent with SPD theory, there was also a significant cross-lagged effect indicating that relatively higher levels of innovation skills in a given week were associated with relatively more volunteering two weeks later. Taken together, these findings indicate within-person processes such that positive deviations in innovation skills support both more concurrent and later volunteering.

There were also several within-person cross-lagged effects for activism activities, SEB skills, and personality traits. Relatively higher levels of cooperation and emotional resilience skills in a given week were associated with relatively less online activism in later weeks. In addition, relatively higher levels of online activism were associated with relatively lower levels of innovation skills in later weeks. In contrast, relatively higher levels of agreeableness and emotional resilience were associated with relatively more in-person activism in later weeks. Furthermore, there was a bidirectional effect such that those who engaged in relatively more in-person activism had relatively higher levels of emotional resilience skills in later weeks.

These conflicting findings underscore that the different contexts of activism-related activities may have different SEB skill and personality trait antecedents and consequences. For example, engaging in protests and demonstrations are a means through which like-minded individuals come together in action for a shared cause (Alvis & Metzger, 2020), and elevated levels of compassion for and trust in others may prime college students for later collective action. Recent research also suggests that adolescents felt more positive emotions when engaging with Black Lives Matter via in-person activism compared to engaging online (Baskin-Sommers et al., 2021), and qualitative research suggests that in-person activism can provide youth a context to collectively process painful emotions and draw inspiration from others (May et al., 2022). Findings from this study add to this line of research and indicate that, in the short-term, in-person

activism may be a means through which college students develop skills to proactively manage stress and anger. In turn, higher levels of emotional resilience skills, including capacities to remain optimistic for the future, may sustain in-person activism-related behaviors.

In contrast, engagement in activism via social media platforms may be characterized by high levels of hostility. For example, more political engagement online is associated with higher levels of hate speech victimization among adolescents and emerging adults (Obermaier & Schmuck, 2022). College students who report relatively higher levels of cooperation skills and emotional resilience skills may later refrain from posting or resharing political information online to avoid psychologically harmful engagements with others. Engaging in political discourse online may also resemble more of an in-group "echo chamber" (Barberá et al., 2015) than a space for critical engagement with novel ideas, and, thus, relatively higher online activism may stifle later abstract thinking as well as understanding and appreciation of people from different backgrounds.

Broader Implications

Findings from this research also have broader implications for theory and future research. For one, this research highlights the need for multidimensional measures of personal qualities for understanding the correlates of different civic activities. Assessing both traits (what someone tends to do) and skills (what someone is capable of doing) provided unique insights for not only between-person effects but also within-person processes. For example, although students with higher levels of conscientiousness, extraversion, and agreeableness tended to volunteer more on average than students with lower trait levels, within-person changes in innovation skills were associated with changes in volunteering. This finding supports SEB skill theory that posits these skills help young people "meet the moment" and improve their communities (Napolitano et al.,

2024; Soto et al., 2021). Furthermore, these findings underscore the importance of research designs that can disentangle within-person effects.

These findings also indicate that context matters for understanding within-person correlates of certain civic activities. Though online activism and in-person activism may seem like similar activities at the surface-level, greater engagement in these activities have different associations with SEB skill development. Emerging research indicates that many adolescents and young adults engage in sociopolitical activism online (Wilf et al., 2023), and though many adolescents recognize risks in engaging in protests (Alvis & Metzger, 2019), digital spaces may also incur socioemotional risks. Future research should further explore adolescents' experiences engaging in activism in digital and in-person contexts.

Finally, results from this study indicate that there may be concurrent and short-term prospective socioemotional benefits and consequences for engaging in certain civic activities. It is less clear how engaging in certain civic activities impacts within-person changes in personality traits and SEB skills over longer timespans. For example, a longitudinal study that spanned several years indicated that political activities, including activism, was associated with higher levels of depressive symptoms (Wray-Lake, Shubert, et al., 2019), but findings from this study indicate that there were bidirectional within-person associations between engaging in activism and higher levels of emotional resilience skills across a two-week period. In the short-term, engaging in collective action may inspire hope and be a way to channel negative emotions into actions (Baskin-Sommers et al., 2021; May et al., 2022). In the long-term, youth may feel frustration at a lack of progress and may express doubt about the utility of their collective efforts. Future work could explore these processes over a longer duration to better understand the socioemotional antecedents and consequences of engaging in particular civic activities.

Strengths, Limitations, and Future Directions

There were several strengths of this study including its access to a diverse sample of undergraduate students and its longitudinal assessment of personality traits, SEB skills, and civic engagement, which allowed for an investigation of both between-person and within-person effects. However, there were also several limitations that could be addressed in future research. For one, though the study design allowed for the investigation of between-person and within-person effects, the design does not allow for causal inference. In other words, there may be a third variable that accounts for the relationships among personality traits, SEB skills, and civic engagement. Second, because this study was part of a larger study that assessed many different outcomes, most of the civic activities were measured by a single item to reduce participant burden. Future research should utilize measures that capture civic activities with multiple items.

Third, this study did not examine all types of civic behaviors that college students may engage in such as environmentalism related behaviors and standard political behaviors (Oosterhoff, Whillock, et al., 2021). Future research could explore the between-person and within-person associations among personality traits, SEB skills, and other types of civic activities. Fourth, this study did not investigate group differences across models and may be missing consequential associations that are hidden within the total, aggregated sample. For example, past research suggests that associations among well-being, emotion regulation, and civic activities differ for females and males and across different racial and ethnic groups (Hope et al., 2018; Riley et al., 2021). Future research with larger samples should explore whether there are gender differences and racial/ethnic differences in between-person and within-person cross-associations among personality traits, SEB skills, and civic activities.

Conclusion

The present research advances our understanding of the associations among personality traits, SEB skills, and civic engagement in several ways. First, across the course of a semester, between-person differences in personality traits and SEB skills are associated with prosocial civic activities and activism. Second, there are also within-person processes linking all SEB skills and agreeableness and emotional stability to civic engagement. Within-person deviations in certain personality traits and SEB skills are associated with subsequent changes in civic activities. Within-person deviations in activism-related activities are also associated with subsequent deviations in SEB skills. These findings advance our understanding of the associations among personality traits, SEB skills, and civic engagement, emphasize the importance of parsing out within-person effects in longitudinal data, and suggest that the context of civic engagement is critical for understanding the psychological antecedents and consequences of certain civic activities.

CHAPTER 5: SUMMARY OF FINDINGS AND IMPLICATIONS

The purpose of this work was to investigate whether adolescents' and emerging adults' personality traits and social, emotional, and behavioral (SEB) skills can inform and be cultivated by their civic and political engagement. Specifically, this dissertation explored three questions: 1) How are personality traits and SEB skills related to different facets of civic engagement during adolescence and emerging adulthood? 2) Does civic engagement predict change in personality traits and SEB skills? 3) What are the bidirectional associations between (a) personality traits and civic engagement and (b) SEB skills and civic engagement? To investigate these questions, I reviewed the literature and developed a conceptual five-domain trait and skill framework (Study 1), analyzed data from a quasi-experimental study (Study 2), and analyzed data from a longitudinal study (Study 3). Results and implications from these studies are presented below.

How are personality traits and SEB skills related to different facets of civic engagement during adolescence and emerging adulthood?

In the studies presented in this dissertation, the five factors undergirding personality traits and SEB skills had distinct associations with prosocial civic, standard political, and activism-related behaviors during adolescence and emerging adulthood. In Study 1, the review of the literature suggested that all factors, except the agreeableness/cooperation skills factor, are theoretically or empirically associated with youths' prosocial civic behaviors, standard political behaviors, and activism-related behaviors. In contrast, agreeableness- and cooperative-related constructs were associated primarily with prosocial civic behaviors and standard political behaviors. Findings from Studies 2 and 3 similarly indicate that youth civic engagement requires the full spectrum of personality traits and SEB skills (see Table 13 for a summary of these

associations). Moreover, each type of civic and political activity had distinct associations with different personality traits and SEB skills. These findings deepen our understanding of how SEB skills and personality traits are associated with youth civic engagement.

Table 13

Cross-Sectional Between-Person and Within-Person Relationships among College Students Personality Traits, SEB Skills, and Civic and Political Behaviors in Studies 2-3

	Prosocial Civic Behaviors	Standard Political Behaviors	Activism-Related Behaviors
Self-management skills	+ Study 2 & Study 3		– Study 2
Social engagement skills	+ Study 2 & Study 3		+ Study 3
Cooperation skills	+ Study 2 & Study 3	+ Study 2	+ Study 2
Emotional resilience skills	+ Study 2 & Study 3	– Study 2	+ Study 3
Innovation skills	+ Study 2 & Study 3		+ Study 3
Conscientiousness	+ Study 2 & Study 3		– Study 2 & Study 3
Extraversion	+ Study 2 & Study 3	+ Study 2	+ Study 3
Agreeableness	+ Study 2 & Study 3		
Emotional stability	+ Study 3		
Openness to experience			+ Study 2 & Study 3

Note. + indicates a significant, positive association. – indicates a significant, negative association. Only Study 2 assessed standard political behaviors.

Prosocial Civic Behaviors

Across Studies 2 and 3, college students with higher levels of all SEB skills as well as higher levels of conscientiousness, extraversion, and agreeableness engaged in more prosocial civic activities, such as informal helping and volunteering. In Study 3, there were significant cross-sectional within-person effects such that relatively[5] higher levels of all SEB skills and trait emotional stability were associated with relatively more informal helping. Relatively higher levels of innovation skills were also associated with relatively more volunteering in the same week.

In Study 2, high levels of several SEB skills differentiated the volunteering group and the comparison group, suggesting that service-learning and extracurricular volunteering opportunities may attract college students with high skill levels. Incremental validity analyses from Study 2 also indicated that both personality traits and SEB offer unique insights for understanding youths' prosocial civic behaviors. These findings align with previous empirical developmental research and also indicate that emerging adults' SEB skills may be particularly important for understanding their prosocial civic behaviors.

Standard Political Behaviors

In Study 2, college students with higher levels of cooperation skills and extraversion had higher levels of standard political engagement, including stronger voting intentions and greater involvement in civic and political organizations. These findings align with past research. However, in contrast to previous research, self-management skills and conscientiousness were unrelated to standard political engagement. Research with adults suggests that beliefs about the

[5] I use "relatively" as shorthand for "relative to one's own average" here and elsewhere for readability's sake.

importance of civic activities moderate the association between conscientiousness and civic behaviors (Mondak et al., 2010). Future research should explore whether beliefs about the importance of certain civic activities and the obligation to engage in these behaviors may moderate associations. In addition, the geographical and historical context of data collection may underlie these discrepant findings. Data from Study 2 were collected in 2021 in Illinois— a state that expanded vote by mail access due to COVID-19 (Hinton, 2020). Illinois also allows voters to register to vote on the same day as the election. In places with more restrictive voting policies and less robust vote-by-mail infrastructure, conscientiousness and self-management skills may take on greater importance. Future work should explore this possibility.

Finally, higher levels of emotional resilience skills were associated with less involvement in civic and political organizations. Wray-Lake, Shubert, and colleagues (2019) found that political engagement during emerging adulthood predicts with worse depressive symptoms a few years later and speculated that repeated frustration and disappointment from political campaigns may explain these associations. Similarly, greater involvement in civic and political organizations may expose youth to stressful contexts with high emotional stakes. However, because there was only one instance of emotional resilience skills being associated with standard political behaviors, I am hesitant to overinterpret this finding. Future research should further explore the associations among personality traits, SEB skills, and a broader range of standard political behaviors.

Activism-Related Behaviors

College students with higher levels of all SEB skills, except self-management skills, and higher levels of extraversion and openness engaged in more activism-related behaviors. The critical consciousness literature has highlighted how understanding and analyzing the roots of

social injustices is a critical component of social justice activism and political participation (Watts et al., 2011). Findings from Studies 2 and 3 complement this literature and suggest that college students who tend to or are more skilled at thinking about abstract topics, thinking creatively, and understanding others from diverse backgrounds also engage in more activism. The developmental literature also suggests that emotions are critical for understanding youths' involvement in activism-related behaviors, and findings from Study 3 indicate that those who are more skilled at managing their emotions engage in more in-person activism. In addition, findings across Studies 2 and 3 indicate that college students who were more socially skilled and who tended to engage with others more also engaged in more collective action.

While some research suggests that self-regulation is positively associated with engagement in activism related-behaviors, higher levels of self-management skills and conscientiousness were associated with less activism across Studies 2 and 3. Facets constituting the broad domains of conscientiousness and self-management skills include conventionality and rule-following (Roberts et al., 2014; Soto et al., 2022a), and high levels of rule-following skills and strict adherence to social conventions may lead to less activism-related behaviors because this type of political activity rejects the status quo and works outside of traditional civic and political institutions. Future research should further explore what facets of conscientiousness and self-management skills may drive these associations. Furthermore, these findings indicate that a broader array of SEB skills, as compared to personality traits, may support youth activism.

Does civic engagement predict change in personality traits and SEB skills?

Results from Study 2 and Study 3 indicate that engaging in certain civic behaviors may lead to subsequent personality trait and SEB skill change, though not always in the positive direction. In Study 2, engaging in volunteering and service-learning was associated with declines

in cooperation skills, extraversion, and openness to experience— relative to the comparison group of students who was not engaged in volunteering or service-learning. In Study 3, engaging in relatively more online activism was associated with relative declines in innovation skills two weeks later. Engaging in relatively more in-person activism was associated with relative growth in emotional resilience skills.

In general, these findings suggest that simply engaging in certain civic activities doesn't necessarily entail positive development, and the context of these activities may be critical for understanding their consequences for trait and skill development. For example, in Study 2, there was considerable heterogeneity in the types of volunteering projects available to participants (see the Appendix), and some projects were completed remotely. Projects that were done remotely and did not involve opportunities for social interactions may have been inappropriate contexts for participants to build social skills. In addition, how participants evaluated their volunteering experience may be related to their subsequent SEB skill and personality trait change. For example, participants' evaluations of their volunteering experience as positive or negative may have also led them to reflect on their dispositions and skillsets. Participants who engaged in volunteering projects that required social interaction but did not have a pleasant experience may, in turn, question their cooperation skills and their tendencies to be sociable. Future research should explore how experiential and evaluative factors related to volunteering and activism experiences may be related to personality trait and SEB skill change.

What are the bidirectional associations between (a) personality traits and civic engagement and (b) SEB skills and civic engagement?

Result from Study 3 indicated that there were several within-person cross-lagged effects between personality traits and civic engagement and SEB skills and civic engagement.

Relatively higher levels of innovation skills were associated with relatively more volunteering two weeks later. Relatively higher levels of agreeableness were associated with relatively more in-person activism two weeks later. Relatively higher levels of cooperation and innovation skills were associated with relatively less engagement in online activism two weeks later. In general, these findings suggest that within-person changes in traits and skills can lead to subsequent changes in civic activities.

In addition, as referenced above, engaging in relatively more in-person activism was associated with relative growth in emotional resilience skills two weeks later. In turn, college students who had relatively higher levels of emotional resilience skills engaged in relatively more in-person activism two weeks later. This finding suggests in-person activism may be a means through which college students develop skills to proactively process negative emotions such as fear, stress, and anger and draw on positive emotions including hope and inspiration. In turn, higher levels of emotional resilience skills, including capacities to remain optimistic for the future, may sustain in-person activism-related behaviors.

Limitations and Future Directions

Though there were several strengths of this dissertation, it is also important to highlight the limitations. First, only Study 2 assessed standard political behaviors, and no studies assessed environmental behaviors, which are common among college students (Oosterhoff, Whillock, et al., 2021). Future research should assess more facets of civic engagement spanning prosocial, standard political, activism, and environmental domains. In addition, Studies 2 and 3 assessed general activism-related behaviors, and future research should utilize measures that specifically assess social justice related activism. Second, the historical timing of the data collection occurred in between election cycles, and this may have impacted the associations among SEB skills,

personality traits, and civic engagement. College students may generally be more politically engaged when there is a national election, and SEB skills may help college students who typically are not engaged act in ways they do not tend to during an election year. Future research should explore this possibility. Third, the generalizability of this study is limited to college students, and associations among personality traits, SEB skills, and civic engagement should be explored with emerging adults who are not in college as well as younger adolescents. Such studies could investigate developmental differences in the importance of these constructs for youth civic engagement. Fourth, the timespan of data collection for Study 2 and Study 3 were both approximately one semester. Future research should explore whether changes in civic engagement, traits, or SEB skills are temporal or sustained over longer periods of time. Moreover, longitudinal research spanning longer periods of time could investigate whether the impact of certain civic and political activities take time to emerge.

Conclusion

This dissertation supports two key conclusions about the nature of the relationship among personality traits, SEB skills, and civic and political engagement during adolescence and emerging adulthood. One, youth civic engagement requires the full spectrum of personality traits and SEB skills, but prosocial civic, standard political, and activism-related activities have distinct associations with specific personality traits and SEB skills at the between-person and within-person levels. Two, simply engaging in civic and political activities doesn't necessitate positive trait or skill development and the context of these experiences may be important for understanding trait and skill change.

REFERENCES

Abrahams, L., Pancorbo, G., Primi, R., Santos, D., Kyllonen, P., John, O. P., & De Fruyt, F. (2019). Social-emotional skill assessment in children and adolescents: Advances and challenges in personality, clinical, and educational contexts. *Psychological Assessment*, *31*(4), 460–473. https://doi.org/10.1037/pas0000591

Ackermann, K. (2019). Predisposed to volunteer? Personality traits and different forms of volunteering. *Nonprofit and Voluntary Sector Quarterly*, *48*(6), 1119–1142. https://doi.org/10.1177/0899764019848484

Alvis, L. M., & Metzger, A. (2020). Dimensions of adolescent civic reasoning: An examination of individual differences. *Journal of Adolescent Research*, 35(3), 309–340. https://doi.org/10.1177/0743558419862485

Amnå, E. (2012). How is civic engagement developed over time? Emerging answers from a multidisciplinary field. *Journal of Adolescence*, *35*(3), 611–627. https://doi.org/10.1016/j.adolescence.2012.04.011

Anyiwo, N., Bañales, J., Rowley, S. J., Watkins, D. C., & Richards-Schuster, K. (2018). Sociocultural influences on the sociopolitical development of African American youth. *Child Development Perspectives*, *12*(3), 165–170. https://doi.org/10.1111/cdep.12276

Anyiwo, N., Palmer, G. J., Garrett, J. M., Starck, J. G., & Hope, E. C. (2020). Racial and political resistance: An examination of the sociopolitical action of racially marginalized youth. *Current Opinion in Psychology*, *35*, 86–91. https://doi.org/10.1016/j.copsyc.2020.03.005

Ballard, P. J. (2014). What motivates youth civic involvement? *Journal of Adolescent Research*, *29*(4), 439–463. https://doi.org/10.1177/0743558413520224

Ballard, P. J., Hoyt, L. T., & Pachucki, M. C. (2019). Impacts of adolescent and young adult civic engagement on health and socioeconomic status in adulthood. *Child Development*, *90*(4), 1138–1154.

Ballard, P. J., Ni, X., & Brocato, N. (2020). Political engagement and wellbeing among college students. *Journal of Applied Developmental Psychology*, 71, 101209. https://doi.org/10.1016/j.appdev.2020.101209

Ballard, P. J., & Syme, S. L. (2016). Engaging youth in communities: A framework for promoting adolescent and community health. *Journal of Epidemiology and Community Health*, *70*(2), 202–206. https://doi.org/10.1136/jech-2015-206110

Bañales, J., Aldana, A., Richards-Schuster, K., Flanagan, C. A., Diemer, M. A., & Rowley, S. J. (2021). Youth anti-racism action: Contributions of youth perceptions of school racial messages and critical consciousness. *Journal of Community Psychology*, *49*(8), 3079–3100. https://doi.org/10.1002/jcop.22266

Baskin-Sommers, A., Simmons, C., Conley, M., Chang, S.-A., Estrada, S., Collins, M., Pelham, W., Beckford, E., Mitchell-Adams, H., Berrian, N., Tapert, S. F., Gee, D. G., & Casey, B. J. (2021). Adolescent civic engagement: Lessons from Black Lives Matter. *Proceedings of the National Academy of Sciences*, *118*(41), e2109860118. https://doi.org/10.1073/pnas.2109860118

Beck, E. D., & Jackson, J. J. (2022). A mega-analysis of personality prediction: Robustness and boundary conditions. *Journal of Personality and Social Psychology*, *122*(3), 523–553. https://doi.org/10.1037/pspp0000386

Berg, J., Osher, D., Same, M. R., Nolan, E., Benson, D., & Jacobs, N. (2017). *Identifying, defining, and measuring social and emotional competencies.* American Institutes for Research.

Bleidorn, W. (2015). What accounts for personality maturation in early adulthood? *Current Directions in Psychological Science*, *24*(3), 245–252. https://doi.org/10.1177/0963721414568662

Bleidorn, W., Klimstra, T. A., Denissen, J. J. A., Rentfrow, P. J., Potter, J., & Gosling, S. D. (2013). Personality maturation around the world: A cross-cultural examination of social-investment theory. *Psychological Science*, *24*(12), 2530–2540. https://doi.org/10.1177/0956797613498396

Bleidorn, W., Schwaba, T., Zheng, A., Hopwood, C. J., Sosa, S. S., Roberts, B. W., & Briley, D. A. (2022). Personality stability and change: A meta-analysis of longitudinal studies. *Psychological Bulletin*. https://doi.org/10.1037/bul0000365

Bornstein, M. H. (2017). The specificity principle in acculturation science. *Perspectives on Psychological Science*, *12*(1), 3–45. https://doi.org/10.1177/1745691616655997

Boyd, M. J., Zaff, J. F., Phelps, E., Weiner, M. B., & Lerner, R. M. (2011). The relationship between adolescents' news media use and civic engagement: The indirect effect of interpersonal communication with parents☆. *Journal of Adolescence*, *34*(6), 1167–1179. https://doi.org/10.1016/j.adolescence.2011.07.004

Brandt, N. D., Savage, C., Roberts, B. W., Baumert, J., & Wagner, J. (2022). Who do you trust? The role of level and change in trust and personality across young to middle adulthood for political interest and voting intentions. *Journal of Research in Personality*, *101*, 104288. https://doi.org/10.1016/j.jrp.2022.104288

Breil, S. M., Mielke, I., Ahrens, H., Geldmacher, T., Sensmeier, J., Marschall, B., & Back, M. D. (2022). Predicting actual social skill expression from personality and skill self-concepts. *Journal of Intelligence*, *10*(3), 48. https://doi.org/10.3390/jintelligence10030048

Bringle, R. G., & Hatcher, J. A. (1996). Implementing service learning in higher education. *The Journal of Higher Education*, *67*(2), 221–239. https://doi.org/10.1080/00221546.1996.11780257

Carlo, G., Okun, M. A., Knight, G. P., & de Guzman, M. R. T. (2005). The interplay of traits and motives on volunteering: Agreeableness, extraversion and prosocial value motivation. *Personality and Individual Differences*, *38*(6), 1293–1305. https://doi.org/10.1016/j.paid.2004.08.012

Carlo, G., & Padilla-Walker, L. (2020). Adolescents' prosocial behaviors through a multidimensional and multicultural lens. *Child Development Perspectives*, *14*(4), 265–272. https://doi.org/10.1111/cdep.12391

Celio, C. I., Durlak, J., & Dymnicki, A. (2011). A meta-analysis of the impact of service-learning on students. *Journal of Experiential Education*, *34*(2), 164–181. https://doi.org/10.1177/105382591103400205

Chan, W. Y., Ou, S.-R., & Reynolds, A. J. (2014). Adolescent civic engagement and adult outcomes: An examination among urban racial minorities. *Journal of Youth and Adolescence*, *43*(11), 1829–1843. https://doi.org/10.1007/s10964-014-0136-5

Cho, A., Byrne, J., & Pelter, Z. (2020). Digital civic engagement by young people. UNICEF Office of Global Insight and Policy. https://participationpool.eu/wp-

CIRCLE (2010, May 2). Civic skills and federal policy. CIRCLE Fact Sheet. Center for Information and Research on Civic Learning and Engagement (CIRCLE).

Clark, S., & Seider, S. (2020). The role of curiosity in the sociopolitical development of Black and Latinx adolescents. *Journal of Research on Adolescence, 30*(1), 189–202. https://doi.org/10.1111/jora.12511

Cohen, A. K., & Chaffee, B. W. (2013). The relationship between adolescents' civic knowledge, civic attitude, and civic behavior and their self-reported future likelihood of voting. *Education, Citizenship and Social Justice*, *8*(1), 43–57. https://doi.org/10.1177/1746197912456339

Diemer, M. A. (2012). Fostering marginalized youths' political participation: longitudinal roles of parental political socialization and youth sociopolitical development. *American Journal of Community Psychology*, *50*(1–2), 246–256. https://doi.org/10.1007/s10464-012-9495-9

Diemer, M. A., & Rapa, L. J. (2016). Unraveling the complexity of critical consciousness, political efficacy, and political action among marginalized adolescents. *Child Development*, *87*(1), 221–238. https://doi.org/10.1111/cdev.12446

Duckworth, A. L., & Yeager, D. S. (2015). Measurement matters: Assessing personal qualities other than cognitive ability for educational purposes. *Educational Researcher*, *44*(4), 237–251. https://doi.org/10.3102/0013189X15584327

Dull, B. D., Hoyt, L. T., Grzanka, P. R., & Zeiders, K. H. (2021). Can white guilt motivate action? The role of civic beliefs. *Journal of Youth and Adolescence*, *50*(6), 1081–1097. https://doi.org/10.1007/s10964-021-01401-7

Eisenberg, N., Morris, A. S., McDaniel, B., & Spinrad, T. L. (2009). Moral cognitions and prosocial responding in adolescence. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of*

Adolescent Psychology (p. adlpsy001009). John Wiley & Sons, Inc. https://doi.org/10.1002/9780470479193.adlpsy001009

Feraco, T., & Meneghetti, C. (2023). Social, emotional, and behavioral skills: Age and gender differences at 12 to 19 years old. *Journal of Intelligence*, *11*(6), 118. https://doi.org/10.3390/jintelligence11060118

Finlay, A., Wray-Lake, L., & Flanagan, C. (2010). Civic engagement during the transition to adulthood: developmental opportunities and social policies at a critical juncture. In *Handbook of Research on Civic Engagement in Youth* (pp. 277–305). John Wiley & Sons, Ltd. https://doi.org/10.1002/9780470767603.ch11

Flanagan, C. (2003). Developmental roots of political engagement. *PS: Political Science and Politics*, *36*(2), 257–261.

Flanagan, C., & Levine, P. (2010). Civic engagement and the transition to adulthood. *The Future of Children*, *20*(1), 159–179.

Fleeson, W., & Jayawickreme, E. (2015). Whole trait theory. *Journal of Research in Personality*, *56*, 82–92. https://doi.org/10.1016/j.jrp.2014.10.009

Furnham, A., & Cheng, H. (2019). Personality traits and socio-demographic variables as predictors of political interest and voting behavior in a 112ritish cohort. *Journal of Individual Differences*, *40*(2), 118–125. https://doi.org/10.1027/1614-0001/a000283

Gerber, A. S., Huber, G. A., Doherty, D., & Dowling, C. M. (2011). The big five personality traits in the political arena. *Annual Review of Political Science*, *14*(1), 265–287. https://doi.org/10.1146/annurev-polisci-051010-111659

Göllner, R., Damian, R. I., Rose, N., Spengler, M., Trautwein, U., Nagengast, B., & Roberts, B. W. (2017). Is doing your homework associated with becoming more conscientious? *Journal of Research in Personality*, *71*, 1–12. https://doi.org/10.1016/j.jrp.2017.08.007

Gordon, C. S., Pink, M. A., Rosing, H., & Mizzi, S. (2022). A systematic meta-analysis and meta-synthesis of the impact of service-learning programs on university students' empathy. *Educational Research Review*, *37*, 100490. https://doi.org/10.1016/j.edurev.2022.100490

Greene, S., Burke, K. J., & McKenna, M. K. (2018). A review of research connecting digital storytelling, photovoice, and civic engagement. *Review of Educational Research*, *88*(6), 844–878. https://doi.org/10.3102/0034654318794134

Gülseven, Z., Puente, K., Tulagan, N., Zarrett, N., Simpkins, S. D., & Vandell, D. L. (2023). Children's self-control as an antecedent of adolescent prosociality and adult civic engagement. *Applied Developmental Science*, 1–15. https://doi.org/10.1080/10888691.2022.2158827

Guo, J., Tang, X., Marsh, H. W., Parker, P., Basarkod, G., Sahdra, B., Ranta, M., & Salmela-Aro, K. (2022). The roles of social–emotional skills in students' academic and life success: A multi-informant and multicohort perspective. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspp0000426

Hamaker, E. L., Kuiper, R. M., & Grasman, R. P. P. P. (2015). A critique of the cross-lagged panel model. *Psychological Methods*, *20*(1), 102–116. https://doi.org/10.1037/a0038889

Hardwick, R. (2023, January 23). *Urbana protesters mourn beating victim and demand changes to policing*. Illinois Public Media. https://ipmnewsroom.org/urbana-protesters-mourn-beating-victim-and-demand-changes-to-policing/

Hardy, S. A., Bean, D. S., & Olsen, J. A. (2015). Moral identity and adolescent prosocial and antisocial behaviors: interactions with moral disengagement and self-regulation. *Journal of Youth and Adolescence*, *44*(8), 1542–1554. https://doi.org/10.1007/s10964-014-0172-1

Hart, D., Matsuba, K., & Atkins, R. (2014). Civic engagement and child and adolescent well-being. *Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective*, 957–975. https://doi.org/10.1007/978-90-481-9063-8_33

Heberle, A. E., Rapa, L. J., & Farago, F. (2020). Critical consciousness in children and adolescents: A systematic review, critical assessment, and recommendations for future research. *Psychological Bulletin*, *146*(6), 525–551. https://doi.org/10.1037/bul0000230

Hernandez, J. (2023, March 13). *The Biden administration approves the controversial Willow drilling project in Alaska.* NPR. https://www.npr.org/2023/03/13/1163075377/willow-drilling-project-alaska-approved-biden

Hill, P. L., & Edmonds, G. W. (2017). Personality development in adolescence. In *Personality Development Across the Lifespan* (pp. 25–38). Elsevier. https://doi.org/10.1016/B978-0-12-804674-6.00003-X

Hinton, J. (2020, December 4). *Over 6 million Illinois residents cast ballots in 2020 election.* Chicago Sun Times. https://chicago.suntimes.com/elections/2020/12/4/22153939/illinois-presidential-election-turnout-voting

Hope, E. C., & Bañales, J. (2019). Black early adolescent critical reflection of inequitable sociopolitical conditions: A qualitative investigation. *Journal of Adolescent Research*, *34*(2), 167–200. https://doi.org/10.1177/0743558418756360

Hope, E. C., & Jagers, R. J. (2014). The role of sociopolitical attitudes and civic education in the civic engagement of black youth. *Journal of Research on Adolescence*, *24*(3), 460–470. https://doi.org/10.1111/jora.12117

Hope, E. C., Keels, M., & Durkee, M. I. (2016). Participation in Black Lives Matter and deferred action for childhood arrivals: Modern activism among Black and Latino college students. *Journal of Diversity in Higher Education*, *9*(3), 203–215. https://doi.org/10.1037/dhe0000032

Hope, E. C., & Spencer, M. B. (2017). Civic engagement as an adaptive coping response to conditions of inequality: An application of Phenomenological Variant of Ecological Systems Theory (PVEST). In N. J. Cabrera & B. Leyendecker (Eds.), *Handbook on Positive Development of Minority Children and Youth* (pp. 421–435). Springer International Publishing. https://doi.org/10.1007/978-3-319-43645-6_25

Hope, E. C., Velez, G., Offidani-Bertrand, C., Keels, M., & Durkee, M. I. (2018). Political activism and mental health among Black and Latinx college students. *Cultural Diversity and Ethnic Minority Psychology*, *24*(1), 26–39. https://doi.org/10.1037/cdp0000144

Hope, E. C., Volpe, V. V., Briggs, A. S., & Benson, G. P. (2022). Anti-racism activism among Black adolescents and emerging adults: Understanding the roles of racism and anticipatory racism-related stress. *Child Development*, *93*(3), 717–731. https://doi.org/10.1111/cdev.13744

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Jagers, R. J., Lozada, F. T., Rivas-Drake, D., & Guillaume, C. (2017). Classroom and school predictors of civic engagement among Black and Latino middle school youth. *Child Development*, *88*(4), 1125–1138. https://doi.org/10.1111/cdev.12871

Jagers, R. J., Rivas-Drake, D., & Williams, B. (2019). Transformative Social and Emotional Learning (SEL): Toward SEL in service of educational equity and excellence. *Educational Psychologist, 54*(3), 162–184. https://doi.org/10.1080/00461520.2019.1623032

John, O. P., Naumann, L. P., & Soto, C. J. (2008). Paradigm shift to the integrative Big Five trait taxonomy: History, measurement, and conceptual issues. In O. P. John, R. W. Robins, & L. A. Pervin (Eds.), *Handbook of personality: Theory and research* (3rd ed., pp. 114–158). New York, NY: Guilford Press.

Johnson, M. (2015). Developing college students' civic identity: The role of social perspective taking and sociocultural issues discussions. *Journal of College Student Development*, *56*(7), 687–704. https://doi.org/10.1353/csd.2015.0074

Kautz, T., Heckman, J., Diris, R., ter Weel, B., & Borghans, L. (2014). *Fostering and Measuring Skills: Improving Cognitive and Non-Cognitive Skills to Promote Lifetime Success* (w20749; p. w20749). National Bureau of Economic Research. https://doi.org/10.3386/w20749

Khasanzyanova, A. (2017). How volunteering helps students to develop soft skills. *International Review of Education*, *63*(3), 363–379.

Kirlin, M. (2003). The role of civic skills in fostering civic engagement (CIRCLE Working Paper 06). Center for Information and Research on Civic Learning and Engagement (CIRCLE). https://files.eric.ed.gov/fulltext/ED497607.pdf

Kline, R. B. (2016). *Principles and Practice of Structural Equation Modeling* (4th ed.). The Guilford Press.

Kornbluh, M., Davis, A. L., Hoyt, L. T., Simpson, S. B., Cohen, A. K., & Ballard, P. J. (2022). Exploring civic behaviors amongst college students in a year of national unrest. *Journal of Community Psychology*, *50*(7), 2950–2972. https://doi.org/10.1002/jcop.22808

Le, T. U., Johnson, S. K., & Lerner, J. V. (2022). Exploring moderators of the relationship between adolescents' social responsibility and civic actions. *Journal of Community & Applied Social Psychology*, casp.2618. https://doi.org/10.1002/casp.2618

Lechner, C. M., Knopf, T., Napolitano, C. M., Rammstedt, B., Roberts, B. W., Soto, C. J., & Spengler, M. (2022). The Behavioral, Emotional, and Social Skills Inventory (BESSI): Psychometric properties of a German-language adaptation, temporal stabilities of the skills, and associations with personality and intelligence. *Journal of Intelligence*, *10*(3), 63. https://doi.org/10.3390/jintelligence10030063

Lerner, R. M., Lerner, J. V., P. Bowers, E., & John Geldhof, G. (2015). Positive youth development and relational-developmental-systems. In R. M. Lerner (Ed.), *Handbook of Child Psychology and Developmental Science* (pp. 1–45). John Wiley & Sons, Inc. https://doi.org/10.1002/9781118963418.childpsy116

Lerner, R. M., Wang, J., Champine, R. B., Warren, D. J. A., & Erickson, K. (2014). Development of civic engagement: Theoretical and methodological issues. *International Journal of Developmental Science*, *8*(3–4), 69–79. https://doi.org/10.3233/DEV-14130

Lodi-Smith, J., & Roberts, B. W. (2007). Social investment and personality: A meta-analysis of the relationship of personality traits to investment in work, family, religion, and

volunteerism. *Personality and Social Psychology Review*, *11*(1), 68–86. https://doi.org/10.1177/1088868306294590

Luengo Kanacri, B. P., Pastorelli, C., Eisenberg, N., Zuffianò, A., Castellani, V., & Caprara, G. V. (2014). Trajectories of prosocial behavior from adolescence to early adulthood: Associations with personality change☆. *Journal of Adolescence*, *37*(5), 701–713. https://doi.org/10.1016/j.adolescence.2014.03.013

Mahatmya, D., & Lohman, B. J. (2012). Predictors and pathways to civic involvement in emerging adulthood: neighborhood, family, and school influences. *Journal of Youth and Adolescence*, *41*(9), 1168–1183. https://doi.org/10.1007/s10964-012-9777-4

Malin, H., Ballard, P. J., & Damon, W. (2015). Civic purpose: An integrated construct for understanding civic development in adolescence. *Human Development*, *58*(2), 103–130. https://doi.org/10.1159/000381655

Mammadov, S. (2022). Big Five personality traits and academic performance: A meta-analysis. *Journal of Personality*, *90*(2), 222–255. https://doi.org/10.1111/jopy.12663

May, S., Seider, S., El-Amin, A., Diaz, B., & Graves, D. (2022). Black and Latinx adolescents' developing commitment to antiracist activism over four years of high school. *Journal of Research on Adolescence*, *32*(3), 1020–1041. https://doi.org/10.1111/jora.12725

McCammon, S. (2023, April 8). *Judges' dueling decisions put access to a key abortion drug in jeopardy nationwide*. NPR. https://www.npr.org/2023/04/07/1159220452/abortion-pill-drug-mifepristone-judge-texas-amarillo

Memmott-Elison, M. K., Holmgren, H. G., Padilla-Walker, L. M., & Hawkins, A. J. (2020). Associations between prosocial behavior, externalizing behaviors, and internalizing

symptoms during adolescence: A meta-analysis. *Journal of Adolescence*, *80*(1), 98–114. https://doi.org/10.1016/j.adolescence.2020.01.012

Metzger, A., Alvis, L. M., Oosterhoff, B., Babskie, E., Syvertsen, A., & Wray-Lake, L. (2018). The intersection of emotional and sociocognitive competencies with civic engagement in middle childhood and adolescence. *Journal of Youth and Adolescence*, *47*(8), 1663–1683. https://doi.org/10.1007/s10964-018-0842-5

Metzger, A., Ferris, K. A., & Oosterhoff, B. (2019). Adolescents' civic engagement: Concordant and longitudinal associations among civic beliefs and civic involvement. *Journal of Research on Adolescence*, *29*(4), 879–896. https://doi.org/10.1111/jora.12423

Metzger, A., & Smetana, J. G. (2010). Social cognitive development and adolescent civic engagement. In L. R. Sherrod, J. Torney-Purta, & C. A. Flanagan (Eds.), *Handbook of Research on Civic Engagement in Youth* (pp. 221–248). John Wiley & Sons, Inc. https://doi.org/10.1002/9780470767603.ch9

Metzger, A., Syvertsen, A. K., Oosterhoff, B., Babskie, E., & Wray-Lake, L. (2016). How children understand civic actions: A mixed methods perspective. *Journal of Adolescent Research*, *31*(5), 507–535. https://doi.org/10.1177/0743558415610002

Mondak, J. J., Hibbing, M. V., Canache, D., Seligson, M. A., & Anderson, M. R. (2010). Personality and civic engagement: An integrative framework for the study of trait effects on political behavior. *American Political Science Review*, *104*(1), 85–110. https://doi.org/10.1017/S0003055409990359

Moore, E. W., Warta, S., & Erichsen, K. (2014). College students' volunteering: factors related to current volunteering, volunteer settings, and motives for volunteering. *College Student Journal*, *48*(3), 386–396.

Moorfoot, N., Leung, R. K., Toumbourou, J. W., & Catalano, R. F. (2015). The longitudinal effects of adolescent volunteering on secondary school completion and adult volunteering. *International Journal of Developmental Science*, *9*(3–4), 115–123. http://dx.doi.org.proxy2.library.illinois.edu/10.3233/DEV-140148

Napolitano, C. M., Soto, C. J., Sewell, M. N., Yoon, H. J., & Roberts, B. W. (in preparation). Changes in social, emotional, and behavioral skills are associated with changes in American high school students' important outcomes.

Napolitano, C. M., Sewell, M. N., Yoon, H. J., Soto, C. J., & Roberts, Brent. W. (2021). Social, emotional, and behavioral skills: an integrative model of the skills associated with success during adolescence and across the life span. *Frontiers in Education*, *6*, 679561. https://doi.org/10.3389/feduc.2021.679561

Napolitano, C.M., Sewell, M. N., Yoon, H. J., Elmi, C., & Roberts, B. W. (2024). Self-regulation: A character development perspective. In Lerner, R. M., & Matthews, M. D. (Eds.), *The Multidisciplinary Handbook of Character Development*. 10.4324/9781003252450-8

Núñez, J., & Flanagan, C. (2014). Political beliefs and civic engagement in emerging adulthood. In Arnett, J. J. (Ed.), *The Oxford Handbook of Emerging Adulthood*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780199795574.013.21

Obermaier, M., & Schmuck, D. (2022). Youths as targets: Factors of online hate speech victimization among adolescents and young adults. *Journal of Computer-Mediated Communication, 27*(4), zmac012. https://doi.org/10.1093/jcmc/zmac012

Obradović, J., & Masten, A. S. (2007). Developmental antecedents of young adult civic engagement. *Applied Developmental Science*, *11*(1), 2–19. https://doi.org/10.1080/10888690709336720

Omoto, A. M., Snyder, M., & Hackett, J. D. (2010). Personality and motivational antecedents of activism and civic engagement. *Journal of Personality*, *78*(6), 1703–1734. https://doi.org/10.1111/j.1467-6494.2010.00667.x

Oosterhoff, B., Alvis, L., Deutchman, D., Poppler, A., & Palmer, C. A. (2021). Civic development within the peer context: Associations between early adolescent social connectedness and civic engagement. *Journal of Youth and Adolescence*, *50*(9), 1870–1883. https://doi.org/10.1007/s10964-021-01465-5

Oosterhoff, B., Kaplow, J. B., Layne, C. M., & Pynoos, R. S. (2018). Civilization and its discontented: Links between youth victimization, beliefs about government, and political participation across seven American presidencies. *American Psychologist*, *73*(3), 230–242. https://doi.org/10.1037/amp0000189

Oosterhoff, B., Whillock, S., Tintzman, C., & Poppler, A. (2021). Temporal associations between character strengths and civic action: A daily diary study. *The Journal of Positive Psychology*, 1–13. https://doi.org/10.1080/17439760.2021.1940247

Organisation for Economic Co-Operation and Development. (2015). Skills for social progress: The power of social and emotional skills. http:// www.oecd.org/education/skills-for-social-progress-9789264226159-en.htm

Organisation for Economic Co-Operation and Development. (2021). Beyond academic learning: First results from the survey of social and emotional skills. *OECD Publishing*. https://doi.org/10.1787/92a11084-en.

Ozer, D. J., & Benet-Martínez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology*, *57*(1), 401–421. https://doi.org/10.1146/annurev.psych.57.102904.190127

Padilla-Walker, L. M., & Christensen, K. J. (2011). Empathy and self-regulation as mediators between parenting and adolescents' prosocial behavior toward strangers, friends, and family. *Journal of Research on Adolescence*, *21*(3), 545–551. https://doi.org/10.1111/j.1532-7795.2010.00695.x

Poropat, A. E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *Psychological Bulletin*, *135*(2), 322–338. https://doi.org/10.1037/a0014996

Primi, R., Santos, D. D. dos, Hauck, N., Fruyt, F. D., & John, O. P. (2019). Mapping self-report questionnaires for socio-emotional characteristics: What do they measure? *Estudos de Psicologia (Campinas)*, *36*, e180138. https://doi.org/10.1590/1982-0275201936e180138

Quinn, M., & Kates, G. (2023, September 5). *Trump's 4 indictments in detail: A quick-look guide to charges, trial dates and key players for each case*. CBS News. https://www.cbsnews.com/news/trump-indictments-details-guide-charges-trial-dates-people-case/

Quintelier, E. (2015). Engaging adolescents in politics: The longitudinal effect of political socialization agents. *Youth & Society*, *47*(1), 51–69. https://doi.org/10.1177/0044118X13507295

Riley, T. N., DeLaney, E., Brown, D., Lozada, F. T., Williams, C. D., The Spit for Science Working Group, & Dick, D. M. (2021). The associations between African American emerging adults' racial discrimination and civic engagement via emotion regulation.

Cultural Diversity and Ethnic Minority Psychology, *27*(2), 169–175. https://doi.org/10.1037/cdp0000335

Ringwald, W. R., Kaurin, A., Lawson, K. M., Wright, A. G. C., & Robins, R. (2023). The development of personality – from metatraits to facets – across adolescence and emerging adulthood in a sample of Mexican-origin youth. [Preprint]. PsyArXiv. https://doi.org/10.31234/osf.io/ft3cq

Roberts, B. W., Lejuez, C., Krueger, R. F., Richards, J. M., & Hill, P. L. (2014). What is conscientiousness and how can it be assessed? *Developmental Psychology, 50*(5), 1315–1330. https://doi-org.proxy2.library.illinois.edu/10.1037/a0031109

Roberts, B. W., Luo, J., Briley, D. A., Chow, P. I., Su, R., & Hill, P. L. (2017). A systematic review of personality trait change through intervention. *Psychological Bulletin*, *143*(2), 117–141. https://doi.org/10.1037/bul0000088

Roberts, B. W., & Wood, D. (2006). Personality development in the context of the neo-socioanalytic model of personality. In D. Mroczek & T. Little (Eds.), *Handbook of personality development* (pp. 11–39). Mahwah, NJ: Erlbaum

Roberts, B. W., & Yoon, H. J. (2022). Personality psychology. *Annual Review of Psychology*, *73*(1), 489–516. https://doi.org/10.1146/annurev-psych-020821-114927

Rosseel, Y. (2012). Lavaan: An R package for structural equation modeling. *Journal of statistical software, 48*, 1-36.

Rossi, G., Lenzi, M., Sharkey, J. D., Vieno, A., & Santinello, M. (2016). Factors associated with civic engagement in adolescence: The effects of neighborhood, school, family, and peer contexts. *Journal of Community Psychology*, *44*(8), 1040–1058. https://doi.org/10.1002/jcop.21826

Salam, M., Awang Iskandar, D. N., Ibrahim, D. H. A., & Farooq, M. S. (2019). Service learning in higher education: A systematic literature review. *Asia Pacific Education Review*, *20*(4), 573–593. https://doi.org/10.1007/s12564-019-09580-6

Seider, S., Clark, S., & Graves, D. (2020). The development of critical consciousness and its relation to academic achievement in adolescents of color. *Child Development*, *91*(2). https://doi.org/10.1111/cdev.13262

Sewell, M. N., Napolitano, C. M., Roberts, B. W., Soto, C. J., & Yoon, H. J. (2023). The social, emotional, and behavioral skill antecedents to college students' volunteering during the COVID -19 pandemic. *Journal of Research on Adolescence*, jora.12830. https://doi.org/10.1111/jora.12830

Sewell, M. N., Yoon, H. J., Lechner, C. M., Napolitano, C. M., Rammstedt, B., Roberts, B. W., & Soto, C. J. (under review). Assessing social, emotional, and behavioral skills in just a few minutes: 96-, 45-, and 20-item short forms of the BESSI. Preprint doi: 10.31234/osf.io/4b2eu

Shah, D. V., McLeod, J. M., & Lee, N. (2009). Communication competence as a foundation for civic competence: Processes of socialization into citizenship. *Political Communication*, *26*(1), 102–117. https://doi.org/10.1080/10584600802710384

Sherrod, L. R., & Lauckhardt, J. (2009). The development of citizenship. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of Adolescent Psychology* (p. adlpsy002012). John Wiley & Sons, Inc. https://doi.org/10.1002/9780470479193.adlpsy002012

Silke, C., Brady, B., Boylan, C., & Dolan, P. (2018). Factors influencing the development of empathy and pro-social behaviour among adolescents: A systematic review. *Children and Youth Services Review*, *94*, 421–436. https://doi.org/10.1016/j.childyouth.2018.07.027

Snell, P. (2010). Emerging adult civic and political disengagement: A longitudinal analysis of lack of involvement with politics. *Journal of Adolescent Research*, *25*(2), 258–287. https://doi.org/10.1177/0743558409357238

Soto, C. J., & John, O. P. (2017a). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology*, *113*(1), 117–143. https://doi.org/10.1037/pspp0000096

Soto, C. J., & John, O. P. (2017a). Short and extra-short forms of the Big Five Inventory–2: The BFI-2-S and BFI-2-XS. *Journal of Research in Personality*, *68*, 69–81. https://doi.org/10.1016/j.jrp.2017.02.004

Soto, C. J., John, O. P., Gosling, S. D., & Potter, J. (2011). Age differences in personality traits from 10 to 65: Big Five domains and facets in a large cross-sectional sample. *Journal of Personality and Social Psychology*, *100*(2), 330–348. https://doi.org/10.1037/a0021717

Soto, C. J., Napolitano, C. M., & Roberts, B. W. (2021). Taking skills seriously: Toward an integrative model and agenda for social, emotional, and behavioral skills. *Current Directions in Psychological Science*, *30*(1), 26–33. https://doi.org/10.1177/0963721420978613

Soto, C. J., Napolitano, C. M., Sewell, M. N., Yoon, H. J., Murano, D., Casillas, A., & Roberts, B. W. (2023). What I do and what I can do: Testing the convergence and incremental validity of social, emotional, and behavioral skills vs. traits for predicting academic success. *Journal of Research in Personality*, *104*, 104382. https://doi.org/10.1016/j.jrp.2023.104382

Soto, C. J., Napolitano, C. M., Sewell, M. N., Yoon, H. J., & Roberts, B. W. (2022a). An integrative framework for conceptualizing and assessing social, emotional, and behavioral skills: The BESSI. *Journal of Personality and Social Psychology*, *123*(1), 192–222. https://doi.org/10.1037/pspp0000401

Soto, C. J., Napolitano, C. M., Sewell, M. N., Yoon, H. J., & Roberts, B. W. (2022b). Going beyond traits: Social, emotional, and behavioral skills matter for adolescents' success. *Social Psychological and Personality Science*, 194855062211274. https://doi.org/10.1177/19485506221127483

Soto, C. J., & Tackett, J. L. (2015). Personality traits in childhood and adolescence: Structure, development, and outcomes. *Current Directions in Psychological Science*, *24*(5), 358–362. https://doi.org/10.1177/0963721415589345

Stahlmann, A. G., Hopwood, C. J., & Bleidorn, W. (2023). Big Five personality traits predict small but robust differences in civic engagement. *Journal of Personality*, jopy.12838. https://doi.org/10.1111/jopy.12838

Stewart, R. D., Mõttus, R., Seeboth, A., Soto, C. J., & Johnson, W. (2022). The finer details? The predictability of life outcomes from Big Five domains, facets, and nuances. *Journal of Personality*, *90*(2), 167–182. https://doi.org/10.1111/jopy.12660

Suzuki, S., May, S. C., & Seider, S. (2023). Associations between hope and trajectories of critical consciousness among U.S. youth of color. *Journal of Research on Adolescence*, jora.12872. https://doi.org/10.1111/jora.12872

Syvertsen, A. K., Wray-Lake, L., Flanagan, C. A., Osgood, D. W., & Briddell, L. (2011). Thirty-year trends in U.S. adolescents' civic engagement: A story of changing participation and

educational differences. *Journal of Research on Adolescence*, *21*(3), 586–594. https://doi.org/10.1111/j.1532-7795.2010.00706.x

Tashjian, S. M., Rahal, D., Karan, M., Eisenberger, N., Galván, A., Cole, S. W., & Fuligni, A. J. (2021). Evidence from a randomized controlled trial that altruism moderates the effect of prosocial acts on adolescent well-being. *Journal of Youth and Adolescence*, *50*(1), 29–43. https://doi.org/10.1007/s10964-020-01362-3

Torney-Purta, J. (2002). The school's role in developing civic engagement: A study of adolescents in twenty-eight countries. *Applied Developmental Science*, *6*(4), 203–212. https://doi.org/10.1207/S1532480XADS0604_7

Torney-Purta, J., Barber, C. H., & Wilkenfeld, B. (2007). Latino adolescents' civic development in the United States: Research results from the IEA Civic Education Study. *Journal of Youth and Adolescence*, *36*(2), 111–125. https://doi.org/10.1007/s10964-006-9121-y

Torney-Purta, J., Richardson, W. K., & Barber, C. H. (2004). Trust in government-related institutions and civic engagement among adolescents: Analyses of five countries from the IEA Civic Education Study. CIRCLE Working Paper 17. *Center for Information and Research on Civic Learning and Engagement*.

Van der Graaff, J., Carlo, G., Crocetti, E., Koot, H. M., & Branje, S. (2018). Prosocial behavior in adolescence: Gender differences in development and links with empathy. *Journal of Youth and Adolescence*, *47*(5), 1086–1099. https://doi.org/10.1007/s10964-017-0786-1

Vecchione, M., & Caprara, G. V. (2009). Personality determinants of political participation: The contribution of traits and self-efficacy beliefs. *Personality and Individual Differences*, *46*(4), 487–492. https://doi.org/10.1016/j.paid.2008.11.021

Wagner, J., Becker, M., Lüdtke, O., & Trautwein, U. (2015). The first partnership experience and personality development: A propensity score matching study in young adulthood. *Social Psychological and Personality Science*, *6*(4), 455–463. https://doi.org/10.1177/1948550614566092

Walker, T. (2002). Service as a pathway to political participation: What research tells us. *Applied Developmental Science*, *6*(4), 183–188. https://doi.org/10.1207/S1532480XADS0604_4

Walton, K. E., Murano, D., Burrus, J., & Casillas, A. (2021). Multimethod support for using the big five framework to organize social and emotional skills. *Assessment*, 107319112110457. https://doi.org/10.1177/10731911211045744

Watts, R. J., Diemer, M. A., & Voight, A. M. (2011). Critical consciousness: Current status and future directions. *New Directions for Child and Adolescent Development*, *2011*(134), 43–57. https://doi.org/10.1002/cd.310

Watts, R. J., & Flanagan, C. (2007). Pushing the envelope on youth civic engagement: A developmental and liberation psychology perspective. *Journal of Community Psychology*, *35*(6), 779–792. https://doi.org/10.1002/jcop.20178

Wilf, S., Wray–Lake, L., & Saavedra, J. A. (2023). Youth civic development amid the pandemic. *Current Opinion in Psychology*, *52*, 101627. https://doi.org/10.1016/j.copsyc.2023.101627

Wilson, N., Dasho, S., Martin, A. C., Wallerstein, N., Wang, C. C., & Minkler, M. (2007). Engaging young adolescents in social action through photovoice: The Youth Empowerment Strategies (YES!) project. *The Journal of Early Adolescence*, *27*(2), 241–261. https://doi.org/10.1177/0272431606294834

Wolfe, E., & Razek, R. (2023, April 7). *Tennessee House GOP expels 2 Democrats in retaliation over gun control protest, on 'sad day for democracy'*. CNN. https://www.cnn.com/2023/04/07/us/tennessee-democrat-house-representatives-expelled-friday/index.html

Wray-Lake, L., Arruda, E. H., & Schulenberg, J. E. (2020). Civic development across the transition to adulthood in a national U.S. sample: Variations by race/ethnicity, parent education, and gender. *Developmental Psychology*, *56*(10), 1948–1967. https://doi.org/10.1037/dev0001101

Wray-Lake, L., DeHaan, C. R., Shubert, J., & Ryan, R. M. (2019). Examining links from civic engagement to daily well-being from a self-determination theory perspective. *The Journal of Positive Psychology*, *14*(2), 166–177. https://doi.org/10.1080/17439760.2017.1388432

Wray-Lake, L., Metzger, A., & Syvertsen, A. K. (2017). Testing multidimensional models of youth civic engagement: Model comparisons, measurement invariance, and age differences. *Applied Developmental Science*, *21*(4), 266–284. https://doi.org/10.1080/10888691.2016.1205495

Wray-Lake, L., Rote, W. M., Benavides, C. M., & Victorino, C. (2014). Examining developmental transitions in civic engagement across adolescence: Evidence from a national U.S. sample. *International Journal of Developmental Science*, *8*(3–4), 95–104. https://doi.org/10.3233/DEV-14142

Wray-Lake, L., Schulenberg, J., Keyes, K. M., & Shubert, J. (2017). The developmental course of community service across the transition to adulthood in a national U.S. sample. *Developmental Psychology*, *53*(12), 2397–2408. https://doi.org/10.1037/dev0000377

Wray-Lake, L., Shubert, J., Lin, L., & Starr, L. R. (2019). Examining associations between civic engagement and depressive symptoms from adolescence to young adulthood in a national U.S. sample. *Applied Developmental Science*, *23*(2), 119–131. https://doi.org/10.1080/10888691.2017.1326825

Wray-Lake, L., & Sloper, M. A. (2016). Investigating general and specific links from adolescents' perceptions of ecological assets to their civic actions. *Applied Developmental Science*, *20*(4), 250–266. https://doi.org/10.1080/10888691.2015.1114888

Wray-Lake, L., & Syvertsen, A. K. (2011). The developmental roots of social responsibility in childhood and adolescence. *New Directions for Child and Adolescent Development*, *2011*(134), 11–25. https://doi.org/10.1002/cd.308

Wray-Lake, L., Syvertsen, A. K., & Flanagan, C. A. (2016). Developmental change in social responsibility during adolescence: An ecological perspective. *Developmental Psychology*, *52*(1), 130–142. https://doi.org/10.1037/dev0000067

Wray-Lake, L., Wells, R., Alvis, L., Delgado, S., Syvertsen, A. K., & Metzger, A. (2018). Being a Latinx adolescent under a Trump presidency: Analysis of Latinx youth's reactions to immigration politics. *Children and Youth Services Review*, *87*, 192–204. https://doi.org/10.1016/j.childyouth.2018.02.032

Yazdani, N., Hoyt, L. T., Maker Castro, E., & Cohen, A. K. (2022). Sociopolitical influences in early emerging adult college students' pandemic-related civic engagement. *Emerging Adulthood*, 216769682210982. https://doi.org/10.1177/21676968221098296

Yoon, H. J., Roberts, B. W., Sewell, M. N., Napolitano, C. M., Soto, C. J., Murano, D., & Casillas, A. (2024). Examining SEB skills' incremental validity over personality traits in

predicting academic achievement. *PLOS ONE*, *19*(1), e0296484. https://doi.org/10.1371/journal.pone.0296484

Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence*, *12*(1), 121–148. https://doi.org/10.1111/1532-7795.00027

Zaff, J. F., Malanchuk, O., & Eccles, J. S. (2008). Predicting positive citizenship from adolescence to young adulthood: The effects of a civic context. *Applied Developmental Science*, *12*(1), 38–53. https://doi.org/10.1080/10888690801910567

APPENDIX: EXAMPLES OF VOLUNTEER OPPORTUNITIES

1. Support outdoor family game night.
2. Support playground and indoor activities with children.
3. Provide tech support creating social media content and promotional material.
4. Teach virtual media programs to youth and adults.
5. Volunteer in non-profit store doing sorting, processing, pricing, stocking, quality control, and direct assistance of customers and staff.
6. Support communication initiatives to disseminate our work.
7. Support community building activities and facilitate discussions with small affinity groups of 6-10 students from similar backgrounds.
8. Provide tech support to Senior Citizens.
9. Collaborate in the identification of relevant grants and support funding efforts.
10. Assist with gardening efforts.
11. Provide technical support in virtual meetings.
12. Mentor kindergarten to fifth grade students in STEM programs.
13. Lead STEM activities with middle school students & families.
14. Provide after-school activities for middle school students during after-school programs.
15. Provide once-a-week STEM activities with elementary and middle school age girls that are culturally responsive and centered on creativity, problem solving, and empowerment.
16. Provide tech support in building and maintaining a website.
17. Support in door-to-door canvassing.
18. Organizing production of print materials.
19. Organizing books and providing support at larger book sales.

20. Support fundraising events.

21. Develop infographs and organize materials for community programming.

22. Create bibliography for services relevant to client needs.

23. Support friends without addresses with programming and social activities.

24. Create social media posts, blogs, and review book materials on wellness.

25. Develop literature reviews on neuropsychology and testing.

26. Support recruitment of students to program.

27. Support registration of attendees and assemble training packets for mentor trainings.

28. Write letters to isolated seniors.

29. Direct runners in a 5k race.