

April 2024

## **Breaking Barriers**

### **Exploring the Impact of a Support Program on Access to Formal Childcare for Immigrants - A Mixed-Method Evaluation**

Kiara Tegbe Savignac

Master's Thesis supervised by Carlo Barone

Second member of the Jury: Denis Fougère

Master in Public Policy

Policy Stream: Social Policy & Social Innovation

## **Acknowledgments**

I want to express my heartfelt gratitude to Professor Carlo Barone, Laudine Carbuccia (Ph.D), Zineb Makine (Research Assistant), Professor Clement Pin, and all the individuals and researchers with whom I have had the privilege to collaborate on this meaningful project. Your guidance, support, and kindness have been invaluable throughout this research journey.

As this research marks the culmination of my studies, I extend my deepest thanks to my parents and family for their unwavering support over the past six years. Your encouragement and belief in me have been my driving force.

A special appreciation goes out to my friends who have become family here in France and abroad. Your friendship and companionship have made this journey more enjoyable and memorable.

Last but certainly not least, I extend my heartfelt thanks to my Rock, whose unwavering support and encouragement have been my guiding light throughout this journey. I am deeply grateful for your love and support.

**Table of Contents**

- 1. Why Should I Read This Research?.....4
- 2. Formal Childcare Arrangements In France.....5
- 3. Introduction.....6
- 4. Interdisciplinary State Of Knowledge.....7
  - 4.1. Childcare In France.....7
  - 4.2. Immigration And Formal Childcare In France.....12
- 5. Program Design..... 15
  - 5.1. Sample.....15
  - 5.2. Baseline Survey.....15
  - 5.3. Randomized Control Trial.....16
  - 5.4. Treatments.....16
  - 5.5. End-line Survey.....17
  - 5.6. Research Question And Hypothesis.....17
- 6. Methodology And Data.....18
  - 6.1. A Mixed-Method Approach.....18
  - 6.2. Quantitative Analysis.....19
  - 6.3. Qualitative Analysis.....21
- 7. Analysis And Findings.....23
  - 7.1. Insights From The Baseline Survey.....23
  - 7.2. Insights From The End-line Survey And Treatment Effects.....32
- 8. Limits and Further Research Possibilities.....48
- 9. Conclusion: Policy Recommendations.....49
  - 9.1. Policy Recommendation 1: Digital Information Platform for Childcare Access.....49
  - 9.2. Policy Recommendation 2: Sensitization Campaign During Pregnancy.....50
- 10. Bibliography.....52
- 11. Annex.....56
  - 11.1. Annex 1: Selected Baseline Survey Questions For A Quantitative Analysis.....56
  - 11.2. Annex 2: Selected End-line Survey Questions For A Quantitative Analysis.....57
  - 11.3. Annex 3: Regression Analyses Results .....58

## 1. Why Should I Read This Research?

The importance of childcare is multifaceted, touching upon fundamental concepts like "Inequalities of Destiny" or "Inégalités de Destins" in French. This concept underscores how individuals' life paths and outcomes are often shaped by initial socioeconomic background, access to opportunities, education, and social privileges. It acknowledges that personal efforts do not solely determine life trajectories but are influenced by broader societal structures and inequalities. These inequalities can manifest in adulthood through income, education, employment opportunities, health outcomes, and social mobility disparities. Crucially, such inequalities often find their roots in childhood, highlighting the pivotal role of early experiences in shaping lifelong outcomes.

The French National *Politique des 1000 Premiers Jours* (Policy of the First 1000 Days) is a testament to the public recognition of the critical importance of the early stages of life. This policy acknowledges that actions taken during this period can help mitigate the amplification of inequalities that occur over time. By addressing inequalities early on, there is a hope to provide children from underprivileged backgrounds with equal chances of well-being and achievement in various aspects of life.

Turning attention to the intersection of childcare and immigration, it becomes apparent that this area is underexplored, particularly in France. There is a lack of comprehensive literature on how immigration status intersects with access to formal childcare services and the experiences of immigrant families. As someone interested in immigration issues, delving into this topic is a deliberate choice driven by recognizing its significance and the gaps in existing research.

Hence, this research employs a mixed-method approach, combining quantitative impact evaluation and qualitative inquiry. The goal is to provide a foundation for evidence-based policy-making. By rigorously examining the impact of a support program to improve access to formal childcare, this research seeks to inform policies and practices that promote equity and equality. Despite the challenges faced during this research endeavor - such as the need for new skills and self-learning, the process has been rewarding, offering valuable insights into a critical area with the potential to drive positive change.

## 2. Formal Childcare Arrangements In France

Collective formal childcare arrangements according to the type of governance:

- Municipal
  - Crèche collective <sup>1</sup>
  - Crèches familiales <sup>2</sup>
  - Haltes-garderies<sup>3</sup>
  - Multi-accueil<sup>4</sup>
- Departmental
  - Crèche collective
  - Crèches familiales
  - Haltes-garderies
  - Multi-accueil
- Associative
  - Crèche collective
  - Crèches familiales
  - Crèches parentales
  - Haltes-garderies
  - Multi-accueil
- Private
  - Crèche collective
  - Crèches familiales
  - Crèches d'entreprise<sup>5</sup>
  - Micro-crèches<sup>6</sup>
  - Haltes-garderies
  - Multi-accueil

Individual formal childcare arrangements :

- Childminder
  - Simple
  - Maison d'assistantes maternelles<sup>7</sup>
- Parental assistant
  - Simple
  - Shared care

---

<sup>1</sup> Collective daycare centers where young children are cared for, supervised, and provided with educational and developmental activities during the day.

<sup>2</sup> Small groups of children cared for in the homes of qualified childminders supervised by a central childcare organization.

<sup>3</sup> Daycare centers where children can be looked after for a short period of time.

<sup>4</sup> Childcare facilities offering various services such as daycare, preschool, and other early childhood programs under one roof.

<sup>5</sup> Workplace daycare facilities provided by companies for their employee's children.

<sup>6</sup> Small-scale daycare catering to a limited number of children.

<sup>7</sup> Childminders operating in a home-like environment, providing care for a small group of children.

### 3. Introduction

Early childhood is a critical phase for developing a child's brain, shaping mechanisms that influence long-term cognitive, social, emotional, and physical well-being. Studies have consistently shown a socioeconomic status gradient in developing these skills, indicating that inequalities are rooted in early childhood (Berger et al., 2021). International consensus supports the notion that formal childcare is vital in enhancing the development of children aged 0 to 3, particularly in socio-behavioral skills, motor skills, language and literacy, and overall health (Carbuccia et al., 2020). While external factors may influence outcomes and challenge social determinism, these socio-cognitive skills are reliable predictors of future academic achievements, socioeconomic status, and well-being. The quality of formal childcare options, including structured programs and trained staff, correlates positively with children's developmental outcomes. The French Elfe Cohort study highlights the substantial positive impact of formal childcare, particularly benefiting children from disadvantaged backgrounds, including those with parents of low educational attainment or immigrant backgrounds. As a result, formal childcare can potentially reduce disparities in socio-cognitive skill development and child well-being, influencing future academic achievement and socioeconomic status. This contribution can foster upward social mobility and promote equality. Paradoxically, those who stand to gain the most from formal childcare often have the least access to it. In France, accessibility to formal childcare is considered one of the lowest among OECD countries. Statistics revealed that 78% of families with a high socioeconomic status (high-SES) had access to formal childcare, starkly contrasting to only 17% of disadvantaged families (HCFEA, 2021). Within this disadvantaged group, a significant portion includes families with an immigrant background.

Observing the disparity between those who benefit most from formal childcare services and those who utilize them, Laudine Carbuccia's Ph.D. research aims to investigate and address the barriers impeding access to formal childcare through an informational and administrative support program.

The decision to center this thesis on evaluating the effects of this program on immigrant parents' access to formal childcare stemmed from a personal interest in the pivotal intersection of immigration and education in France. The recognition of limited literature on this topic further fueled this decision. The chosen research geographic area<sup>8</sup>, marked by a significant concentration of residents with an immigrant background, provides an ideal setting to explore the dynamics between formal childcare and immigration in France.

Finally, it's crucial to maintain ethical clarity: the goal isn't to coerce or convince disadvantaged parents into selecting formal childcare. Instead, the aim is to improve access to information, dispel misconceptions, and facilitate informed decision-making regarding childcare for all. This approach enables those willing to utilize formal childcare to access it effectively and on their terms.

---

<sup>8</sup> Three departments within the Île-de-France Region: Val-de-Marne, Seine-Saint-Denis (SSD), and Paris.

## 4. Interdisciplinary State Of Knowledge

### 4.1. Childcare In France

Historically, formal childcare in France was a way to reconcile work and family life, particularly for women entering the labor market in the 20<sup>th</sup> century (Kamerman, 2006; Fagnani, 2001). However, contemporary discourses emphasize its role in fostering child development, encompassing cognitive, emotional, and social dimensions. Collective childcare arrangements are conducive to child awakening and interactions, promoting language development and social skills (Carbuccia et al., 2020). This shift towards recognizing childcare's role in child development reflects evolving societal priorities, moving beyond the only facilitation of parental employment to focusing on early childhood education and care and holistic child well-being. Another aspect being increasingly considered is the critical role of formal childcare in countering inequalities that take root in the early years of life (Carbuccia et al., 2020). The quality of childcare arrangements has been increasingly recognized as conducive to child development and a potent tool for bridging socioeconomic divides while preparing children for formal education (Bouysse, 2011). The French Elfe Cohort underscores the significant positive effects of formal childcare, particularly benefiting children from less advantaged backgrounds, such as those with parents with low education levels or immigrant backgrounds. Thus, formal childcare has the potential to narrow present gaps in skill development and child well-being, thereby also influencing future academic achievement, socioeconomic status, and overall well-being, contributing to upward social mobility and equality.

#### 4.1.1. Policy Framework And Political Discourse

Early childcare policies in France are derived from a blend of family, assistance, and integration policies. These are geared towards fulfilling the demand for childcare services and promoting equality, inclusivity, and accessibility. The French government fully acknowledges the critical role of childcare in fostering development and countering inequalities, as illustrated by the *Politique des 1000 Premiers Jours* (Policy of the First 1000 Days). Since 2019, this initiative, led by the Ministry of Solidarity and Health, has focused on the period from pregnancy to the child's second birthday. The motivations behind this policy include recognizing this period as crucial for the child's development, health, and future adulthood. According to the ministry, "the environments in which the child grows up, their early life experiences can durably influence their development and health in adulthood," and the goal is to "prevent inequalities that form from the earliest age." Since 2021, the policy has included five concrete actions<sup>9</sup> to promote the establishment of environments favorable to each child's development. These priorities include "providing parents and the child's entourage with simple, accessible, and reliable information" and "improving the quality of early childcare modes." However, improving access to these early formal childcare arrangements is not mentioned.

---

<sup>9</sup> 1. Providing parents and the child's entourage with simple, accessible, and reliable information 2. Improving support for parents throughout the entire period 3. Offering enhanced support according to parents' needs and vulnerabilities 4. Encouraging parents to take time to build a relationship with their child 5. Improving the quality of early childcare modes ([Les 1000 premiers jours de l'enfant \(sante.gouv.fr\)](https://www.sante.gouv.fr/les-1000-premiers-jours-de-lenfant))

Implementing early childcare policies comes with a significant financial burden, constituting a substantial share of the public budget, amounting to 14.7 billion euros in 2021 (ONAPE, 2021). Despite the considerable investment, persistent challenges and expenditures do not necessarily translate into increased access to formal childcare. Demand consistently outstrips supply, resulting in long waiting lists in regions like Ile-de-France. While access to formal childcare is theoretically universal in France, it is not guaranteed and depends on availability contingent upon local context or municipal resources. Indeed, formal childcare services are provided by various institutions, including public, private, and associative entities, all of which are liable to state regulations.

The diversity of early childcare arrangements and the official political discourse promote, in theory, the freedom of choice for families (Fagnani, 2001). Nevertheless, practical constraints such as working hours and geographical disparities often limit options. This results in a stratification of access to formal childcare based on socioeconomic and employment status, underscoring the persistent challenges in achieving equality in childcare provision and access. In conclusion, the rhetoric advocating freedom of choice in childcare arrangements clashes with reality: In France, there is an apparent socioeconomic gradient in access to formal childcare. Low-SES household children who would benefit the most from it access it the least.

#### 4.1.2. An Apparent Socioeconomic Gradient In Access To Formal Childcare Arrangements

France's participation rates in childcare facilities are slightly above the OECD average, with 31.4% of children from low-income families enrolled as of 2017. Despite substantial public investment in childhood policies (similar rates to Denmark or Sweden), France exhibits one of the highest inequality rates in access to formal childcare facilities among European countries, unlike its Nordic counterparts. In 2020, only 17% of disadvantaged families had access to ECEC infrastructures compared to 78% of well-off families, underscoring significant disparities (HCFEA, 2021). Another striking data point is that 80% of families below the poverty threshold don't use childcare facilities (Zaouche Gaudron et al., 2021).

It would be premature to attribute access inequalities solely to the active adoption of the traditional family model, where the man serves as the breadwinner and the woman tends to childcare in disadvantaged environments. Existing literature suggests that this dynamic may not necessarily be actively adopted but imposed by default (Carbuccia, 2022). Numerous studies have delved into the issue of inequality in accessing formal childcare, revealing the presence of both structural and behavioral barriers.

##### 4.1.2.1. Structural Barriers

Structural barriers are "external" factors independent of the potential beneficiary of formal childcare. These barriers pertain to the broader system within which individuals operate, posing challenges for disadvantaged individuals in various aspects.

**Visibility** is one of the structural barriers to accessing formal childcare. It relates to the scope of information. Does information about childcare arrangements or registration schedules reach



all socioeconomic layers of parents? The issue of information interacts notably with that of language, which can particularly represent a barrier for families with an immigration background or ethnic minorities (Lazzari, 2012). The use of traditional media to transmit information can represent an obstacle to these individuals for whom information is often transmitted through the community, the diaspora, or alternative platforms (Vandenbroeck et al., 2008). Thus, some researchers testify to this lack of access to information, application processes, and the eligibility of certain families for formal childcare arrangements (Jensen, 2010; Bettinger et al., 2012; Hoxby & Turner, 2015).

The childcare offer's **attractiveness** refers to the arrangement's practical aspects. One example is the flexibility of the childcare facility's hours. In France, most childcare facilities, especially daycare, operate on what is known as "office hours." In other words, parents with non-standard working hours (often in low-skilled professions where low-SES individuals are overrepresented) may find the operating hours of these facilities restrictive (Hugret et Manço, 2022; Thierry et al., 2018).

**Physical and administrative accessibility** constitutes a third structural barrier to accessing formal childcare. Firstly, the availability of childcare facilities is unevenly distributed across the territory. Indeed, crèches (daycares), the most popular childcare arrangement regardless of socioeconomic class in France, are mainly concentrated in affluent urban areas. At the same time, childminders are overrepresented in rural areas, often poorer. At the metropolitan level, territorial inequalities persist. Paris has the highest coverage rate of childcare facilities in France. In contrast, the Seine-Saint-Denis (SSD) department (the poorest department in metropolitan France) has the lowest coverage rate, demonstrating territorial disparities that translate into access inequalities based on place of residence and, therefore, socioeconomic category (ONAPE, 2018). In France, administrative specifics represent an additional barrier to accessing formal childcare. Indeed, several access and application mechanisms can vary from one department to another. For example, the Val-de-Marne department has completely dematerialized its application process (which may represent a barrier to access for the poorest families lacking quality internet connection or digital literacy; Nollenberger & Rodriguez Planas, 2015; Pora, 2020), but this is not the case in the neighboring SSD department. These different, sometimes contradictory mechanisms lead to significant complexity, reflecting the administrative ambiguity many households face when accessing social rights in France. As childcare facilities can be managed by the municipality, the department, associations, or even private actors, there exists a competitive environment and a lack of coordination between these different actors and levels of management (Carbuccia, 2021). There is a real lack of transparency regarding eligibility and admission criteria, which are left to managers' discretion and inaccessible to parents (Laithier, 2018). Dual parental employment is a commonly encountered priority criterion in accessing formal childcare arrangements. Essentially, a priority is established for children whose both parents are employed, placing unemployed parents or those seeking employment at a disadvantage. However, households with low SES are disproportionately affected by unemployment, while dual-earner households are overrepresented in higher SES categories. This administrative criterion consequently acts as a barrier for disadvantaged parents, particularly mothers, who aim to enter the labor market but encounter challenges enrolling their child(ren) in formal childcare due to their current

employment status. Consequently, they find themselves indirectly trapped in this situation due to these admission criteria.

The cost associated with formal childcare represents a barrier for households for whom it constitutes a significant portion of the available budget, especially childminders or private structures, which incur higher costs than public collective facilities such as municipal daycare. **Financial accessibility**, despite public measures and subsidies such as the Childcare Allowance (PAJE)<sup>10</sup> or the Unique Service Allowance (PSU)<sup>11</sup>, is a structural barrier to accessing formal childcare arrangements. This barrier is even more significant and may represent a considerable portion of the budget if the household depends on a single source of income, as is often the case in single-parent and low-SES families.

Finally, the **relevance and quality** of childcare provision are closely tied to the satisfaction and well-being of families, which is influenced by the quality of care provided. Early childhood practitioners' education and training standards in France are stringent and carefully regulated. As a result, formal childcare options generally maintain high quality and consistency despite facing challenges. Indeed, in France, overcrowding can compromise the quality of care and present an additional hurdle for low-SES families. Due to financial limitations or geographical constraints, these families may have limited flexibility to seek alternative facilities in case of overcrowding. Communication barriers with childcare practitioners, especially for immigrant families, also impact the effectiveness of the arrangement. Moreover, the relevance of formal childcare offerings may be questioned when considering cultural considerations. For example, suppose a childcare facility does not offer alternative meal options for children with specific dietary needs (such as halal, kosher, or vegan). In that case, it immediately becomes less appealing to parents who may opt out of considering such a childcare option.

In light of these structural barriers, "behavioral barriers," often characterized as "internal," encompass the cultural beliefs, biases, or behaviors of parents that shape their decisions and can serve as obstacles to accessing formal childcare. There is an intricate interplay between these barriers, notably seen in the interaction with the structural barrier of visibility. When information fails to reach parents, they cannot consider the option of formal childcare. If they are unaware of it, they cannot consider it—an illustration of the connection between structural and behavioral barriers.

#### 4.1.2.2. Behavioral Barriers

First, the **ability to perceive the need** refers to the awareness of the potential need and the benefits of using formal childcare. A lack of trust in institutions or cultural influence leading to adopting a traditional approach, considering that the child should remain and be under the responsibility of their parents during the first years of life, does not foster the use of formal

---

<sup>10</sup> An ensemble of aids intended for parents upon the birth or adoption of a child which allows for the partial financing of childcare expenses (childminder, daycare, etc.) when parents are employed or seeking employment.

<sup>11</sup> Funding to daycare structures to enable parents to apply at a reduced rate (calculated according to their resources; a national scale).

childcare for children aged 0 to 3. Indeed, representations of the positive aspects of various existing childcare arrangements, including freeing up time to care for oneself, are not identical across social classes and cultures. Entrusting one's child appears as a guarantee of freedom for some but a source of guilt for others, schematically opposing a set of representations about personal autonomy within the family in well-off circles and a stricter gender division of roles in lower-income or traditionalist families (Gojard, 1999). The traditional model, more observed in the less privileged classes according to Leseman (2002), results from the parents' cultural background and education (Wolf, 2020).

The **ability to seek out** a formal childcare facility implies a certain level of autonomy, knowledge of procedures and information points, and the ability to complete the necessary steps on time. Laudine Carbuccia's qualitative study demonstrates that mothers from more privileged backgrounds who were interviewed began seeking childcare arrangements earlier than others during their pregnancy (Carbuccia, 2022). Although all parents seeking childcare perceive administrative procedures as challenging, some are better equipped than others.

A lack of social capital makes it more difficult for low-SES parents to **obtain the desired childcare arrangement** (Carbuccia, 2022). The application process, which is demanding administratively, can be challenging for parents who must provide more documentation to obtain public subsidies after facing multiple refusals. Admission criteria, which are often unclear, may prioritize specific applications over others and vary from one facility to another, leading to a lack of knowledge about which aspects to mention or prioritize in an application. For some facilities, both parents must be employed, which is a disadvantage for unemployed parents or households where only one parent is employed. The operating hours of facilities, mostly "typical," are not suitable for parents with "atypical" working hours, often requiring little qualifications (e.g., night shifts) (Hugret et Manço, 2022; Thierry et al., 2018). Low-SES households are overrepresented in the abovementioned cases (Gingras, 2012). The distance between the childcare facility and the family home is another barrier to access for disadvantaged families with limited transportation options (Vandenbroeck & Lazzari, 2014). This leaves inhabitants of poorer areas with limited transportation options and poorer coverage rates of childcare facilities, dependent on the punctuality and availability of public transportation (which can be challenging to navigate with a stroller). Indeed, a 2019 report by the European Commission identified the physical inaccessibility of childcare facilities as the main barrier to participation, with 58.3% of responses indicating so (European Commission, 2019).

A given household's **financial capacity** is one factor that can represent a barrier to accessing formal childcare arrangements (Immervoll & Barber, 2006; Marshall et al., 2013). This cost is never zero, and despite subsidies, it can represent a too significant burden on the family budget for the most disadvantaged, thereby limiting their use of formal childcare (Workman & Jessen-Howard, 2018). Indeed, there is a cost-opportunity calculation here, often for mothers with low-skilled jobs (Le Bouteillec et al., 2014). The portion of the budget allocated to childcare can be even more burdensome in the case of single-parent families.

The **ability to commit in the long term** relates to the quality of the facility, conditioning the positive (or negative) experience of the child and the family with the childcare arrangement. Lower quality could impact parental satisfaction and, thus, the reputation of such facilities

within the household's social circle. Conversely, a positive impact on parents could be a factor in social integration for populations such as immigrants (Johnson et al., 2017).

Despite limited literature on the subject (especially in Europe) and some barriers being studied more than others, this categorization provides a holistic view of the issues and dynamics surrounding access to formal childcare, particularly for disadvantaged families. It is essential to mention that specific populations may be more sensitive to certain barriers than others. As mentioned earlier, financial involvement and constraints related to the traditional hours of formal childcare may weigh more heavily on a single-parent family depending solely on income from an atypical profession. The issue of physical accessibility also arises for parents with disabilities who do not have access to transportation. This raises a form of intersectionality, to borrow Kimberly Crenshaw's term. In other words, the different dimensions of social identity overlap and interact, creating unique collective and individual experiences of advantages or disadvantages.

In most of the research articles explored, there is mention (however brief) of immigrant-origin families experiencing these structural and behavioral barriers in access to formal childcare arrangements. A personal interest in immigration issues and the focus of the research drive the following part to investigate further the relationship between formal childcare arrangements and families of immigrant origin in France.

## 4.2. Immigration And Formal Childcare In France

### 4.2.1. Overrepresentation Of Immigrants In The Low-SES Category

The literature underscores that in France, immigration and poverty are closely intertwined (Cusset, 2022; Lombardo & Pujol, 2011). The average standard of living of immigrants in France is approximately 20% lower than that of non-immigrants. The gap is more significant when focusing on immigrants from Africa, whose average standard of living is one-third lower than that of French individuals born to French parents<sup>12</sup>. The disparity between the poverty rates of non-immigrants and immigrants is even more striking: the poverty rate among non-immigrants was 13.2% in 2018, while it was 30.7% among immigrants (39.5% for immigrants born in Africa). Other data (Insee, Cnaf, Cnav, CCMSA, enquête revenus fiscaux et sociaux, 2008) have confirmed that the average standard of living is the lowest for immigrants and direct descendants of immigrants from Africa, with 17,820 and 15,960 euros (respectively) compared to 22,810 euros for French individuals born to French parents. Modest households in France are thus increasingly of immigrant origin, and populations of extra-European immigrant origin are overrepresented in low-SES categories and disproportionately exposed to poverty. Nevertheless, immigration paths vary and are not homogeneous. Different realities depend on the country of origin. The standard of living of European immigrants, close to that of French individuals born to French parents, is an example (Lombardo & Pujol, 2011). This is partly explained by the fact that European immigration to France occurred before the waves of immigration from Africa or Asia, thus initiating the integration process earlier (Lombardo &

---

<sup>12</sup> Insee, Revenus et patrimoine des ménages, Insee Références, 2021 edition.

Pujol, 2011). Additionally, the socioeconomic context of the country of origin is much closer to that of France when the origin of immigration is European. Consequently, a more familiar approach to the French conception of childcare is expected among populations of European immigrant origin, and it is anticipated that they face very few of the behavioral barriers mentioned earlier, such as the capacity to perceive the need, barriers related to beliefs, culture, or finances.

Thus, for this study, terms such as "immigration background," "immigrant," "immigration," and their derivatives will be used to refer to extra-European immigration, specifically from developing countries. "Immigrant household," "immigrant parents," or "immigrant participants" will therefore be used to describe households in which the mother was not born in France. This decision was informed by Lombardo and Pujol's research (2011), which indicates that the mother's socioeconomic status has a more significant influence on the family's standard of living. Additionally, the limited presence of partners/fathers during the research project was considered.

#### 4.2.2. The Use Of Formal Childcare By Immigrant Households

The literature on formal childcare facilities and behavioral barriers among immigrant households is relatively limited. However, Suzanne Mollo-Bouvier's pioneering qualitative research in 1991 provides valuable insights into this topic. Her study focused on immigrant mothers from North Africa (12), Turkey (2), Portugal (4), and France (2) (N=20). Conducted in a metropolitan city in France, the research revealed that the majority of families in the sample resided in the city's poorest neighborhood, which was distant from the central areas where essential social institutions, including early childhood facilities such as Maternal and Child Protection Services (PMI) and daycares, were situated. Consequently, these families experienced a sense of exclusion and often relied on informal childcare arrangements, such as neighbors or uncertified childminders. The research also reported a lack of awareness and preconceptions regarding the costs of accessing formal childcare. Indeed, the interviewed mothers did not clearly understand these costs and relied on preconceived ideas. Since money can be a sensitive topic, often leading to anxiety for some low-income households, Mollo-Bouvier reported that information related to the financial commitment of formal childcare arrangements was often misunderstood. Also, she affirmed that the presence of a child at home undoubtedly served as a way to fill an emotional void for these mothers, often isolated from the rest of their families staying in their country of origin. The author referred to this as emotional resistance. Cultural influence and the education received by these mothers also influenced their choices. Indeed, one of the interviewed mothers specifically mentioned her hometown of Sétif (in eastern Algeria) to explain her choice, saying that there is no kindergarten there and that children usually start attending school at 6. Thus, before age 6, they are under the full-time care of their mothers or maternal/paternal grandmothers. Generally speaking, there was no systematic refusal or rejection of formal childcare by the interviewed mothers, but rather pragmatic considerations, such as geographical distance and rationalizations based on significant socio-emotional factors. Some arguments seemed to stem from a genuine lack of knowledge, prompting questions about the availability of unbiased information to them. Some

mothers cited financial concerns, such as "it's too expensive," while others mentioned not feeling entitled to childcare because they are unemployed. Additionally, some explanations seemed to be rationalizations reflecting individual or familial discomfort with formal childcare. Flexible structures such as leisure centers and cultural centers were also rejected or ignored by most immigrant families. Their interest in the child's psycho-social development was not mentioned. Within the sample, two families stood out from the rest. One was a mother of Algerian origin who understood the objectives and benefits of formal childcare. This mother worked in a kindergarten as a childminder. She reported having been sensitized to the topic through her work. She testified to the positive impacts on her children, who participate in various programs (summer camps, leisure centers, etc.). Her professional environment had been a vector of integration, and this mother expressed trust in these institutions. The second family using formal childcare arrangements was a Franco-Japanese family. This fact is very interesting and resonates with the work of Lombardo and Pujol (2011), who assert that the presence of a non-immigrant parent facilitates social integration, notably through a better understanding of the socio-educational system, language, and job market.

In conclusion, Mollo-Bouvier emphasized results showing a lack of overall knowledge of institutions until shortly before the study and a certain disinterest mixed with a lack of trust in these institutions for immigrant mothers. She hypothesized that the reluctance to use these institutions was partly linked to a lack of knowledge of their existence, functioning, cost, and location in the city. Although this study has many limitations and gaps (lack of input from fathers, single-parent families, limits to generalization of the study), it nevertheless sheds light on the use of formal childcare arrangements and social institutions by families of immigrant origin through the perspective of mothers.

Given evident inequalities in access to formal childcare due to various structural and behavioral barriers, Laudine Carbuccia (Ph.D. candidate) embarked on a research project to study and mitigate these behavioral barriers. Our research will focus on the program's impact on access to formal childcare for immigrant households.

## 5. Program Design

In 2021, a qualitative field study commenced in Île-de-France<sup>13</sup>, involving 60 parents, marking the initial phase aimed at gaining preliminary insights into the topic. The research revealed both structural and behavioral barriers to accessing childcare. Structural barriers included limited diversity in available childcare options, unclear admission criteria, and inflexible registration timelines. In contrast, behavioral barriers encompassed information gaps, delayed applications, and administrative hurdles. Despite an expressed willingness among unemployed mothers to use formal childcare, their utilization tended to be less frequent, mainly as their children grew older. These behavioral barriers were often attributed to the cognitive burden and prioritization of other pressing issues among families facing employment insecurity and financial instability. The intervention goal was to empower parents by equipping them with the knowledge and tools necessary to navigate the complexities of accessing formal childcare services, achieved through information sharing and administrative support.

### 5.1. Sample

The intervention began by engaging prospective parents through nine maternity hospitals<sup>14</sup> across three departments within the Île-de-France region: Val-de-Marne, Seine-Saint-Denis (SSD), and Paris. These departments were selected based on several key factors. SSD was chosen due to its status as the poorest department in Metropolitan France, with a poverty rate of 28.6% in 2021, significantly higher than Paris (15.2%) and Metropolitan France (14.6%). This area also boasts a substantial immigrant population, making it particularly relevant for our research focus, which is studying childcare accessibility issues for this group. Additionally, SSD has one of the highest birth rates in the region, with approximately 29,000 births per year, underscoring the significance of childcare concerns in this area. Furthermore, SSD has a notable proportion of single-parent households, comprising 29% of all households, with 85% led by women with one or more children. 6.6% of children in SSD reside in precarious households, as reported by INSEE in 2022. This demographic composition highlights the department's significant representation of low-SES and immigrant communities. While Paris offers a wider range of childcare options, Val-de-Marne stands out for its dematerialized admission process. Including these diverse departments allows the research to capture commonalities and variations in childcare accessibility. The total sample comprised 1,849 participants, predominately of pregnant women, as 83% of partners were absent.

### 5.2. Baseline Survey

The baseline survey was conducted between September and December 2022 using digital tablets at the maternity hospitals. Five surveyors interacted with mothers/couples/parents participating in the study. The survey began with presenting the project, providing general information to avoid bias, and obtaining consent from the participants. The questionnaire comprised 116 questions covering various sections, including sociodemographic insights, after-

---

<sup>13</sup> A French region

<sup>14</sup> Bichat, Tenon, Trousseau, Kremlin Bicêtre, Créteil, Debré, Necker, Villeneuve, Lariboisière

birth projects, knowledge of and intentions regarding childcare arrangements, values assessment, deprivation assessment, economic resources, and health behaviors. The questions included open-ended and closed-ended formats available in French, Arabic, and English. Upon completion, the surveyors distributed a calendar. They explained the program's next steps, emphasizing only the sending of text messages while refraining from mentioning the accompanying intervention program (treatments).

### 5.3. Randomized Control Trial

A randomized controlled trial (RCT) is a scientific study design used to evaluate the effectiveness of a particular intervention or treatment. In an RCT, participants are randomly assigned to either the treatment group(s) that receive the intervention being studied or a control group that does not (or receives a placebo). This randomization helps ensure that any differences observed between the groups are not due to pre-existing characteristics or biases but to the intervention itself. For this program, a randomized control trial was conducted with 1,849 participants from the sample derived from the baseline survey. The participants were randomly assigned to three groups: the control group, treatment 1 (T1) group, and treatment 2 (T2) group. The control group consisted of 623 participants; the T1 group had 610 participants, and the T2 group had 616 participants. Depending on the group they belonged to, participants were provided treatment through informative content, text messages, videos on formal childcare arrangements and access procedures, and administrative support for applications to formal childcare arrangements.

### 5.4. Treatments

From October 2022 to June 2023, the intervention's informational treatment component involved various strategies to provide parents with key information regarding childcare. This included sending text messages addressing important topics, such as reminders of admission commission periods. Additionally, a series of five videos of 4 minutes were created and shared, covering different topics of formal childcare:

1. How to choose childcare based on individual needs?
2. Understanding the cost of childcare.
3. Exploring occasional childcare options, focusing on drop-in daycare centers.
4. Guidance on navigating administrative procedures and seeking assistance.
5. Tips and tricks to enhance the likelihood of securing a childcare placement.

T1 only received the informational treatment: text messages and videos. Meanwhile, T2 received the same treatment as T1 and, in addition, received personalized administrative support tailored to their specific needs and preferences regarding childcare arrangements. This support included identifying suitable childcare options, helping with application submissions, obtaining the necessary documents, scheduling appointments, and more. The control group received a placebo, consisting of infrequent and general text messages such as welcome or holiday wishes. All materials and support were available in French, Arabic, and English. The treatments were applied until June 2023, which corresponds to three months before the commencement of the



school year, which typically aligns with the time when most children aged 0 to 3 begin attending formal childcare.

### 5.5. End-line Survey

End-line questionnaires were conducted via phone calls with surveyors from October to December 2023. The survey included a range of topics such as information checks on the mother and baby's health, psychological inquiries regarding the mother's feelings, and questions assessing the reception, perception, and satisfaction of the treatment(s). Additionally, participants were asked about their compliance with the treatment, their employment status or intention to work, their partner's employment status or intention to work, and the financial state of the household. A section addressed knowledge of, intentions regarding, and current use of childcare arrangements, including their admission process. The total sample size for the end-line questionnaires was 1,455, indicating an opt-out rate of 21%.

### 5.6. Research Question And Hypothesis

Based on our extensive review of the literature and the presentation of the study design, our research question is refined as follows:

#### **How did the intervention affect immigrant participants' behavioral barriers in accessing formal childcare?**

Behavioral barriers, such as cultural beliefs and biases, shape parents' decisions regarding formal childcare. Intertwined with structural challenges like visibility, these barriers impact how immigrant families access childcare arrangements. Considering these complexities, our hypotheses for the "Premiers Pas" intervention are as follows:

1. Immigrant participants are expected to have less knowledge about and intentions to use childcare arrangements compared to French participants at the baseline level.
2. We expect that there will be differences in perspectives and pre-existing knowledge between the general group of immigrant participants and those with higher SES.
3. The intervention is expected to have a more significant impact on participants with an immigrant background, leading to improved knowledge and increased intentions to utilize childcare facilities.
4. We anticipate that the intervention may have a diminished impact on high-SES immigrant participants compared to a general immigrant group encompassing all SES.
5. Given the differences in treatment (1,2), the treatment effect is expected to be more pronounced for immigrant participants in T2 than T1, resulting in a greater reduction of behavioral barriers for T2 at the post-treatment level.

## 6. Methodology And Data

Adopting a mixed-method approach, the methodology starts with a quantitative analysis of data extracted from the baseline and end-line surveys across the three groups (control, T1, T2) for immigrant, high-SES immigrant, and non-immigrant (French) participants. Using Excel, this stage aims to assess initial (pre-treatment) behavioral barriers by measuring knowledge, perceived accessibility, and intentions about formal childcare, followed by measuring the intervention effect (post-treatment) on these variables with a Difference-in-Differences methodology. The qualitative analysis stage consists of two focus groups with participants from treatment group 2. Quantitative results indicate a qualitative impact; the focus groups enable an understanding of the mechanism through which the intervention impacted immigrant participants' behavioral barriers. Through this methodology, the aim is to assess the impact of the intervention on the behavioral barriers defined in the interdisciplinary state of knowledge section. Ultimately, it will confirm or reject our hypotheses on the program's impact on immigrant participants' behavioral barriers in accessing formal childcare.

### 6.1. A Mixed-Method Approach

Adopting a mixed-method approach allows for a comprehensive exploration of the impact of the intervention on immigrant participants' behavioral barriers in access to formal childcare arrangements. This approach combines the strengths of both quantitative and qualitative methodologies, providing a richer understanding of the complexities involved. As Pluye (2023) aptly stated, "The integration of stories and statistics is a powerful way to address complex policy challenges and questions." Additionally, taking advantage of the complementarity of knowledge derived from quantitative and qualitative data allows us to gain a deeper and more nuanced understanding of the impact of the intervention on behavioral barriers to access to formal childcare for immigrant parents. The strengths of quantitative analysis lie in its ability to eliminate biases, maintain emotional detachment, and empirically justify or deny hypotheses (Johnson & Onwuegbuzie, 2004). This rigorous approach ensures that our findings are grounded in empirical evidence and robust statistical analysis. Similarly, qualitative analysis offers strengths such as logic flowing from specific to general, recognizing the subjective knower as a source of reality, and explaining the quantitative results. These aspects enhance our ability to interpret and contextualize the quantitative findings within participants' lived experiences and perceptions.

Utilizing a sequential explanatory design, our methodology involves the following steps. Firstly, the initial phase focuses on quantitative data treatment and analysis extracted from the baseline and end-line surveys administered to control, T1, and T2 group participants. Excel is used for data cleaning and statistical analysis to assess initial (pre-treatment) knowledge levels about childcare facilities, perceived accessibility, and intentions regarding using formal childcare services. This analysis is followed by a Difference-in-Differences methodology to measure the intervention's impact quantitatively, as well as a regression to assess the statistical significance of our results and determine or reject a causal relationship between the given treatment and these variables. Following the quantitative analysis, the study proceeds to conduct

qualitative data collection and analysis. This qualitative exploration entails organizing focus groups with participants from treatment group 2. Through thematic analysis, the qualitative data is examined to identify recurring themes, patterns, narratives, and specificities. This qualitative phase is crucial for complementing and explaining the quantitative results obtained in the first phase.

## 6.2. Quantitative Analysis

### 6.2.1. Data

For the study, the quantitative analysis involves using survey data to produce standardized information from a broad population, enabling statistical treatment and the identification of patterns in opinions and attitudes among various groups. Data extraction for this study is centered on anonymized responses gathered from baseline and end-line surveys, as detailed in the "Program Design" section. The surveys comprise various questions covering diverse topics crucial to our research objectives. These include sociodemographic insights, after-birth projects, knowledge of and intentions regarding formal childcare arrangements, values assessment, economic resources, health behaviors, and more. These questions were carefully crafted to provide valuable insights into the factors influencing participants' decisions and behaviors. The baseline survey, conducted between September and December 2022 in maternity hospitals, garnered responses from the initial cohort of 1,849 participants. This survey is the foundation for our quantitative analysis, providing a baseline snapshot of participants' circumstances and perspectives on formal childcare arrangements before the intervention. In contrast, the anonymized end-line survey data includes responses from 1,455 participants, indicating an opt-out rate of 21%. This second post-intervention survey aims to capture changes and outcomes following the treatment. It delves into aspects similar to the first one, including new questions relevant to the "after-birth" period. This includes status assessments for both the mother and baby, psychological inquiries regarding the mother's emotions, perceptions, satisfaction with and compliance with the treatment, or the financial state of the household. A specific section also focuses on participants' knowledge of, intentions regarding, and current use of formal childcare arrangements, including details about their admission process.

The type of data collected varies significantly, aligning with the diverse nature of the survey questions. Responses range from numerical data, such as family income, to qualitative answers provided in written format for open-ended and closed-ended/dichotomous questions. This diversity in data types allows for a multifaceted analysis that considers quantitative metrics and qualitative participant insights. Among all survey questions, a process is undertaken to identify those most relevant to our research objectives, particularly focusing on knowledge, perceived accessibility, and intentions concerning formal childcare arrangements for immigrant participants. This involves selecting 20 questions from the baseline survey and 43 questions from the end-line survey (see Annex 1). After selecting and cleaning the data, we utilize the Excel PivotTable tool to evaluate the initial (pre-treatment) behavioral barriers. This evaluation involves descriptive statistics measuring knowledge, perceived accessibility, and intentions regarding formal childcare among immigrant and non-immigrant participants. To assess our hypothesis about high-SES immigrant participants, we create a category by filtering for

immigrant respondents with family incomes higher than 3,000 euros monthly, higher education levels, and active occupation status. Following the analysis and interpretation of these initial findings, we apply the same methodology to the data extracted from the end-line survey. To ascertain whether any observed changes within treatment groups between baseline and end-line can be attributed to the treatment, we assess the intervention effect (post-treatment) on these variables using a Difference-in-Differences methodology.

Acknowledging the limited presence of partners/fathers in both the baseline and end-line stages - with 83% of partners absent at the baseline, and considering the research indicating that the socio-economic status of the mother has a greater influence on the family's standard of living than that of the father (Lombardo & Pujol, 2011), we focused solely on mothers' responses to the surveys. This decision ensured a more consistent and representative analysis, as mothers often directly impact childcare-related decisions and family dynamics.

### 6.2.2. Difference-in-Differences (Diff-in-Diff)

The Diff-in-Diff approach is a powerful method used to compare changes in outcomes over time between a population enrolled in a program (the treatment group) and a population that is not (the control group). The control group serves as the counterfactual, helping to understand what would have happened to the treatment group without the intervention by comparing outcome changes between the treatment and comparison groups over time (Martinez, 2011). Randomization of our sample is crucial for the validity of this approach. The randomized assignment process ensures that the treatment and control groups are statistically identical at baseline before the program begins. This robust estimate of the counterfactual allows us to isolate the program's impact, net of all other potential confounding factors, ensuring internal validity in the impact assessment on behavioral barriers. Once the treatment starts, the control group is exposed to the same external factors over time, except for the treatment itself. Therefore, any differences in outcomes between the treatment and control groups can be attributed to the intervention in the comparison group. By opting for a Diff-in-Diff methodology, the aim is to discern whether the intervention has influenced knowledge levels, intentions, and perceptions of formal childcare arrangements among immigrant participants. This approach helps shed light on the program's effectiveness in addressing behavioral barriers for immigrant parents.

The computation of the Diff-in-Diff estimate/coefficient is straightforward, calculated as follows:

$$TA = (B - A) - (D - C)$$

Where:

$(B - A)$  represents the difference in outcomes before and after the intervention for the treatment group.  $(D - C)$  represents the difference in outcomes after the control/counterfactual group intervention.

The Diff-in-Diff analysis is conducted using Excel, leveraging its PivotTable, statistical capabilities, and linear regression function. Descriptive statistics generated for the baseline and end-line surveys are compared to estimate the causal effect of the intervention and generate a Diff-in-Diff coefficient. This process involves scrutinizing how the outcome variable changes for groups that received the treatment versus those that did not after randomization. Additionally, the intensity of the effect is measured by comparing outcomes among immigrant participants in T1 and T2, providing a deeper understanding of the treatment's impact and statistical significance through regression analysis after calculating Diff-in-Diff coefficients.

### 6.3. Qualitative Analysis

#### 6.3.1. Focus Groups

The focus group method is widely used in qualitative social research as a means for the researcher to lead a collective conversation among participants. This qualitative method involves guiding discussions with structured and unstructured questions, often stimulated by different types of content, such as media or videos (Manzano, 2023). The primary goal is to gather a diversity of viewpoints and experiences in the evaluation of the intervention. These discussions enable the measurement of non-empirical or non-numerical data such as values, behaviors, and viewpoints from different subgroups, allowing for capturing the diversity of experiences related to the intervention. Participants in focus groups often share similar characteristics of interest, forming homogeneous groups. This could include individuals with the same immigrant background or socioeconomic status. In our case, focus groups are made according to SES categories and provide valuable insights into several aspects. Firstly, insights into quantitative results: focus groups help to understand further and interpret the quantitative results obtained from surveys. Secondly, mitigation of behavioral barriers. These discussions shed light on the behavioral barriers faced by participants and potential mechanisms through which these barriers were mitigated through the intervention. Thirdly, feedback on the intervention. Participants' feedback on the intervention is gathered, providing valuable input for potential improvements or adjustments. Using focus groups, the study aims to delve deeper into the quantitative findings, explore behavioral barriers, and gather feedback directly from participants regarding the intervention's effectiveness and impact.

For this study, two focus group sessions were conducted, each consisting of 3 to 4 mothers from treatment group T2. The two groups were formed based on socioeconomic status. The Parisian one was made of high-SES mothers (immigrants and French), and the one in Romainville (SSD) was composed of low-SES mothers (immigrants and French). Three interviewers facilitated these discussions. A deliberate choice was made to have a small to medium group size to ensure richer and more in-depth information could be gathered. On average, each focus group session lasted approximately 70 minutes. The session in Romainville took place in the morning at the city's community center. The other session was held in the afternoon in the 19th arrondissement of Paris in a public daycare facility. These diverse settings were chosen intentionally to capture a range of perspectives and experiences related to childcare arrangements and the intervention, ensuring a comprehensive understanding of the impact on immigrant participants across different socioeconomic groups.

The focus group sessions were structured to encourage open discussions among the participants. The format included an opening with general questions. Participants were asked about their experiences with the admission process to formal childcare, including any difficulties encountered and their thoughts about the process. Their satisfaction levels with their current childcare arrangements were also explored. This first part was followed by an exchange time where participants were presented with an example of a text message received during the treatment phase, followed by viewing one of the five videos related to the intervention. They were asked to choose which videos were of interest to them. Discussions then focused on participants' compliance with the treatment and their thoughts about it, along with reflections on the potential of a platform or app to centralize childcare arrangement information. During the discussion phase about administrative support, care was taken to avoid using terms that could be perceived as stigmatizing. Participants were invited to provide feedback on their experiences, highlighting positive and negative aspects. The aim was to emphasize the added value of administrative support provided with the intervention, exploring which means of communication (phone calls, messages, videos) were most relevant and effective. Participants were encouraged to suggest improvements for the intervention.

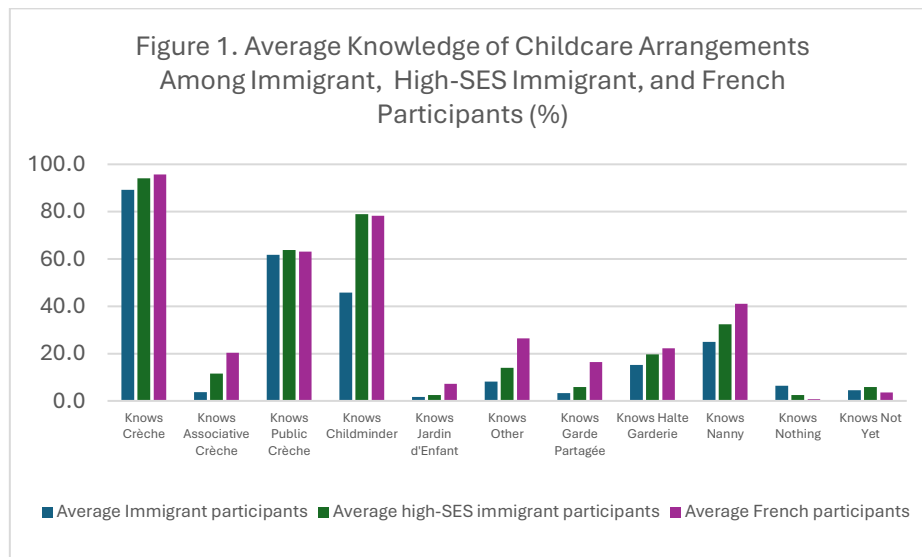
The overarching goal of these structured discussions is to gain insights into the beneficiaries' experiences and short- to medium-term outcomes. Additionally, the aim is to gather feedback on the intervention for future improvements, including assessing the quality and satisfaction levels with the resources delivered by the intervention, understanding what aspects did not work as intended, and exploring any changes perceived from the beneficiaries' perspectives. The focus is also on understanding the consequences of the changes brought about by the intervention, gaining a nuanced understanding of the impact and effectiveness from the perspective of those directly affected. Through these discussions, the study aims to gather valuable feedback to inform future iterations of the intervention and policy recommendations.

## 7. Analysis And Findings

### 7.1. Insights From The Baseline Survey

#### 7.1.1. An Initial Gap In Knowledge About Formal Childcare

The analysis of survey results indicates a notable gap in knowledge regarding childcare arrangements between immigrant and French participants in the pre-treatment phase. This finding doesn't contradict the existing literature, underscoring a general lack of awareness of institutional structures among immigrant participants (Mollo-Bouvier, 1991). At the baseline level of the intervention, French participants demonstrate a higher level of familiarity with various formal childcare arrangements (refer to Figure 1). This disparity can be attributed to their greater exposure to and familiarity with the system of their own country. Indeed, French participants are less likely to encounter visibility barriers related to information as language does not hinder them. Moreover, they have reduced reliance on "alternative" media channels commonly used by immigrants and other minorities (Vandenbroeck et al., 2008). Insights from focus groups across different SES categories for immigrant and French participants further support this observation. For instance, An immigrant participant from the Parisian focus group (FG), who is more proficient in Spanish and English than French, expressed the need for her husband's support due to language barriers. She highlighted the challenge of accessing information in languages other than French and mentioned her limited knowledge about formal childcare arrangements before the program. This underscores the multifaceted nature of barriers faced by immigrant participants, including language limitations and a lack of information accessibility.



Across all population categories, it is evident that some childcare arrangements are more prevalent than others, notably public crèches (municipal and departmental daycare) and childminders. These findings align with the national trends, where these two options are the most widely used formal childcare arrangements (ONAPE, 2018). This chart underscores a discernible gap in knowledge regarding the various types of childcare arrangements between

immigrant and French participants. However, the magnitude of these gaps is not as substantial as anticipated based on the literature review. A consistent trend emerges: formal childcare arrangements that are well-known among French participants, such as daycares, childminders, or nannies, also exhibit higher levels of awareness among immigrant participants across different SES categories. Conversely, childcare options that are less familiar to French participants are similarly less known among immigrants. This suggests that information about the diverse childcare arrangements fails to reach all population segments, irrespective of immigration status or socioeconomic standing.

Insights from focus groups (FG) shed further light on the issue of knowledge disparity regarding existing childcare options. Participants expressed a need for more detailed explanations and information on this topic in both FG settings. For instance, an immigrant participant in the Romainville FG disclosed that she did not know childcare arrangements before the program. Similarly, in the Parisian FG, participants discovered the concept of *crèches familiales* (familial daycare) through the intervention, with some mothers admitting they were previously unaware of anything beyond traditional *crèches* (daycare).

Validating our hypothesis concerning High-SES immigrants, we find that while immigration and poverty are closely intertwined in France (Cusset, 2022; Lombardo & Pujol, 2011), high-SES immigrant participants distinguish themselves from the broader immigrant group in terms of knowledge about the different types of formal childcare arrangements in France. Focusing on survey responses from the high-SES immigrant groups specifically, their knowledge of childcare arrangement types closely resembles that of French participants on average. This suggests that high-SES immigrant participants are almost closing the gap between immigrant and French participants in terms of knowledge about childcare options. This observation underscores the diversity within the immigrant group, challenging the notion of homogeneity of norms, beliefs, and behavioral barriers that immigrant participants are exposed to. It also implies that belonging to a high-SES background could have a significant direct or indirect effect on one's knowledge about formal childcare arrangements.

Moving to subsidies, it is noteworthy that knowledge about public subsidies, which enable individuals to benefit from reduced price rates for childcare arrangements based on earnings, is unevenly distributed across population categories. While at least 90.0% of French participants are aware of subsidies, almost one-third of immigrant participants in our sample lack this knowledge (see Table 1). This reveals a significant gap in understanding subsidies, posing a barrier to accessing formal childcare. Misconceptions about the financial implications of formal childcare may arise, potentially portraying it as a financial obstacle that could deter individuals from using formal childcare services or even seeking information about them. This argument finds support in both FGs. In the Parisian FG (high-SES), a participant from Mexico shared misconceptions she had about the prices of formal childcare, particularly in the case of private arrangements, before the intervention. Still, it is worth highlighting that high-SES immigrant participants exhibit higher knowledge of subsidies than immigrant participants across all three groups (control, T1, T2). However, their level of knowledge still lags behind that of French participants.



|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b> | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 69.2                       | 80.0                                | 91.0                    |
| No/don't know  | 30.8                       | 20.0                                | 9.0                     |
| <b>T1</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 65.9                       | 85.7                                | 91.8                    |
| No/don't know  | 34.1                       | 14.3                                | 8.2                     |
| <b>T2</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 69.7                       | 92.7                                | 94.5                    |
| No/don't know  | 30.3                       | 7.3                                 | 5.5                     |

Table 1. Do you think the price of childcare changes depending on how much the parents earn?

### 7.1.2. Perceived Accessibility And Beliefs

The initial perception of access to crèches (daycares) is generally negative across all participant groups, as evidenced in Table 2. During the FG session in Paris (high-SES), a mother shared her personal experience, highlighting the relative ease with which she secured a spot for her child. However, amidst this recounting of success, she also acknowledged the general difficulty faced by other families. She recounted how a family member had to quit their job due to the unavailability of spots in childcare arrangements, shedding light on the challenges many encounter. Additionally, she mentioned the burdensome administrative process of renewing the application for childcare each time admission was denied. This detailed account underscores the complexity and obstacles parents face when navigating childcare options. In the survey responses regarding the accessibility to crèches, immigrant participants displayed a perceived difficulty, along with the highest "don't know" responses among all groups. This suggests a prevalent lack of information or understanding regarding accessing daycare services, aligning with findings from Carbuccia's research (2022) and the overall perceived complexity of administrative procedures in France. The FG in Romainville also supports these findings and provides valuable insights into the challenges faced by participants with a low-SES. Indeed, participants expressed a general sense of confusion regarding the admission processes, with one participant deeming it "unfair" that she received a spot when she was not employed (and still isn't) in comparison to another mother from the same FG shared her experience of not securing a spot and consequently having to take a year of maternity leave from her job. The mother who successfully obtained a spot mentioned that her application was supported by the city hall and the Maternal and Child Protection Services (PMI), yet she expressed the sentiment that such extensive support should not have been necessary, thus pointing the finger at a failure in the admission procedures. Despite the widespread perception of difficulty, it is notable that for high-SES immigrant and French participants, the "don't know" response rate was low (almost 0 for French participants in T2). This suggests an awareness among these groups of childcare access challenges, emphasizing the need for more accessible and transparent information dissemination regarding childcare arrangements.

The analysis of the baseline survey results reveals that the overall manageability of formal childcare arrangements in terms of schedule is perceived positively across the various participant and treatment groups. However, there appears to be a higher degree of constraint for high-SES immigrant participants, who are typically active mothers (see Table 3). Given that high-SES households are more likely to have both parents working, it is understandable that they may face more challenges in coordinating childcare arrangements with their schedules. This is reflected in higher rates of responses indicating the need for alternative childcare options

or expressing doubts about the manageability of childcare daily in terms of schedules. This observation prompts reflection on the level of constraint imposed by childcare arrangement schedules across different SES categories. As noted in the literature, the operating hours of childcare facilities are often "typical." They may not be suitable for parents with "atypical" working hours, such as night shifts, which are more common among low-SES parents (Hugret et Manço, 2022; Thierry et al., 2018). It is notable that immigrant participants, in general, exhibit the highest rates of "Don't know" responses in this regard, indicating uncertainty about the manageability of childcare schedules and/or a potential lack of information among this demographic group.

|                   | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|-------------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b>    | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Quite difficult   | 33.2                       | 40.0                                | 27.0                    |
| Quite easy        | 7.5                        | 4.0                                 | 8.4                     |
| Impossible        | 1.2                        | 0.0                                 | 6.1                     |
| Don't know        | 14.2                       | 0.0                                 | 4.4                     |
| Almost impossible | 5.1                        | 8.0                                 | 12.2                    |
| Very difficult    | 37.5                       | 48.0                                | 40.7                    |
| Very easy         | 1.2                        | 0.0                                 | 1.2                     |
| <b>T1</b>         | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Quite difficult   | 30.2                       | 42.9                                | 27.2                    |
| Quite easy        | 9.9                        | 3.6                                 | 9.1                     |
| Impossible        | 3.2                        | 10.7                                | 4.2                     |
| Don't know        | 17.9                       | 7.1                                 | 5.1                     |
| Almost impossible | 4.8                        | 7.1                                 | 12.1                    |
| Very difficult    | 32.5                       | 25.0                                | 39.9                    |
| Very easy         | 1.6                        | 3.6                                 | 2.4                     |
| <b>T2</b>         | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Quite difficult   | 29.5                       | 31.7                                | 27.8                    |
| Quite easy        | 12.2                       | 0.0                                 | 7.4                     |
| Impossible        | 0.7                        | 0.0                                 | 3.6                     |
| Don't know        | 12.9                       | 4.9                                 | 1.3                     |
| Almost impossible | 7.4                        | 26.8                                | 14.2                    |
| Very difficult    | 33.2                       | 36.6                                | 43.7                    |
| Very easy         | 4.1                        | 0.0                                 | 1.9                     |

Table 2. In your opinion, having a place in a crèche (daycare) will/would be...

|  | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|--|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b>                             | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Yes  | 73.9                       | 88.0                                | 79.1                    |
| No   | 6.7                        | 0.0                                 | 7.0                     |
| Don't know yet                             | 16.2                       | 4.0                                 | 7.3                     |
| No, we'll use another childcare option too | 3.2                        | 8.0                                 | 6.7                     |
| <b>T1</b>                                  | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Yes  | 64.7                       | 71.4                                | 78.5                    |
| No   | 7.9                        | 17.9                                | 6.3                     |
| Don't know yet                             | 21.0                       | 7.1                                 | 9.7                     |
| No, we'll use another childcare option too | 6.3                        | 3.6                                 | 5.4                     |
| <b>T2</b>                                  | <b>100.0</b>               | <b>100.0</b>                        | <b>100.0</b>            |
| Yes  | 74.5                       | 82.9                                | 79.9                    |
| No   | 6.3                        | 7.3                                 | 5.5                     |
| Don't know yet                             | 15.9                       | 2.4                                 | 9.1                     |
| No, we'll use another childcare option too | 3.3                        | 7.3                                 | 5.5                     |

Table 3. Would using childcare be manageable daily in terms of schedules?

The survey results underscore a significant lack of knowledge among immigrant participants regarding where to find information about childcare options if needed (see Table 4). Immigrant participants exhibit the highest rates of disagreement with the statement, "If I need information

about childcare options, I know how to find them,” with a total of 34.0% indicating they do not know where to seek information about childcare options. These insights contrast with lower rates of disagreement with the statement among high-SES immigrant participants (17.0%) and French participants (18.7%). Similarly, when asked about knowing whom to reach out to for help with administrative procedures if needed, immigrant participants displayed a notable lack of knowledge (see Table 5). These findings align with the existing literature, emphasizing the challenge of accessing social capital for disadvantaged parents to obtain desired childcare arrangements (Carbuccia, 2022). The difficulties extend beyond securing childcare and the administrative hurdles preceding admission. The application process, known for being demanding, can be particularly daunting for disadvantaged parents who may face multiple rejections and must provide extensive documentation to qualify for public subsidies.

Insights from the Paris FG (high-SES) further illustrate these challenges. For instance, a participant took the initiative to visit a daycare herself, while another began the application process as early as three months into her pregnancy. However, despite their proactive approach, these mothers still expressed difficulties due to a lack of information. They mentioned uncertainties about whom to turn to for assistance and what steps to take after facing rejection. If this struggle is apparent among well-off immigrant and non-immigrant mothers, who are assumed to possess greater social capital, it can be inferred that the challenge is even more pronounced for immigrant participants. This is evidenced by their highest disagreement rates (addition of strongly disagree and quite disagree) with both question statements.

|                   | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|-------------------|----------------------------|-------------------------------------|-------------------------|
| Strongly agree    | 26.9                       | 39.4                                | 36.3                    |
| Quite agree       | 35.8                       | 43.6                                | 43.9                    |
| Quite disagree    | 14.8                       | 6.4                                 | 14.0                    |
| Strongly disagree | 19.2                       | 10.6                                | 4.7                     |
| Don't know        | 3.2                        | 0.0                                 | 1.1                     |

Table 4. "If I need information about childcare options, I know how to find them"

|                   | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|-------------------|----------------------------|-------------------------------------|-------------------------|
| Strongly agree    | 33.2                       | 45.7                                | 41.5                    |
| Quite agree       | 28.5                       | 23.4                                | 31.3                    |
| Quite disagree    | 15.2                       | 21.3                                | 14.7                    |
| Strongly disagree | 22.3                       | 9.6                                 | 11.2                    |
| Don't know        | 0.8                        | 0.0                                 | 1.3                     |

Table 5. "I know people who can help me with administrative procedures if I need it (including yourself) even if not needed"

Our statistical analysis indicates that 32.5% of immigrant participants report that "Most" mothers they know have used or currently use formal childcare arrangements (see Table 6). While fewer disparities exist across the three participant groups, especially between high-SES immigrants and French participants, there remains a lower utilization rate of formal childcare arrangements within immigrants' social circles, as evidenced by higher rates of "A minority," "None," and "Don't Know" responses. Additionally, the rate of high-SES immigrant and French participants having "All" mothers in their social circle using formal childcare arrangements is at least twice the rate of immigrant participants having "All" mothers in their social circle using formal childcare arrangements. The impact of norms and trust within social circles significantly

influences parental decisions regarding childcare arrangements (Wolf, 2020). Research suggests that norms and beliefs, often rooted in culture and parents' educational backgrounds (Mollo-Bouvier, 1991), can profoundly shape these decisions. Immigrant parents, often part of diasporas from the same country, tend to share similar norms and beliefs within their social circles, potentially leading to similar behaviors and choices within those circles. Hence, our data suggests that immigrant participants are less likely to use formal childcare arrangements as intensively as their high-SES and French counterparts. Our next section on intentions to use childcare arrangements will further confirm this assumption.

Trust in formal childcare settings was a topic of discussion in the Romainville FG, where one participant with an immigrant background expressed fear about leaving her child with "strangers" when discussing their initial feelings towards formal childcare arrangements. Participants mentioned negative aspects of formal childcare, such as concerns about communal contamination. However, they also acknowledged positive aspects, citing children's development of immunity as an example. Interestingly, discussions in the Romainville group also touched upon videos circulating on social media depicting the mistreatment of children in some formal childcare settings. High-SES immigrant participants in the Paris FG did not mention these aspects. Negative sides of formal childcare were more intensively discussed in the FG in Romainville than in Paris, and they could significantly impact parents' decisions regarding formal childcare arrangements. These insights underscore the multifaceted nature of trust and perceptions surrounding formal childcare, which can vary within different immigrant groups and are influenced by the media.

|            | <b>Immigrant Participants (%)</b> | <b>High-SES Immigrant Participants (%)</b> | <b>French Participants (%)</b> |
|------------|-----------------------------------|--|--------------------------------|
| All        | 13.1                              | 26.6                                       | 36.2                           |
| Most       | 32.5                              | 39.4                                       | 33.5                           |
| Half       | 13.0                              | 13.8                                       | 10.5                           |
| A Minority | 20.9                              | 14.9                                       | 13.1                           |
| None       | 10.8                              | 2.1  | 4.3                            |
| Don't Know | 9.7                               | 3.2  | 2.4                            |

Table 6. Among the mothers you know, what proportion has already used or currently uses a childcare arrangement?

Opting for a formal childcare arrangement or not can entail various costs for parents, including considerations related to well-being, opportunity cost, and career implications. According to the baseline survey, 59.9% of immigrant parents expressed that dedicating a year to their child would have a positive impact on their well-being, a percentage similar to high-SES immigrant participants (57.1%) and higher than the one of French participants (43.0%) (see Table 7. a). In the Parisian FG (high-SES), a participant highlighted the advantages of childcare, emphasizing the opportunity to fully engage and spend quality time with their children when they are together, as well as to fully focus on their respective activities when they are apart, thus enhancing the parent-child relationship and overall well-being.

However, regarding the budget aspect, the results reveal a different picture. A negative impact was reported by 71.3% and 73.9% of high-SES immigrant and French participants, respectively, compared to 55.4% of immigrant parents. This discrepancy can be attributed to the implications of caring for a child without using childcare for a year, which often reduces income for families where both parents work. Immigrant participants, who are more likely to face inactivity and/or

unemployment (OECD, 2006), were found to have what we interpret as a lesser share of participants who would have to “sacrifice” income or job compared to the other two groups (see Table 7. b).

Responses to questions regarding career and the ease of finding a job again also align with the previous findings (see Table 7. c). A substantial 53.2% of high-SES immigrant participants (active mothers) estimated that the impact on their career would be negative, marking the highest rate among the three groups. When considering that the French participants' group encompasses all SES categories, we can infer that filtering for high-SES French, the rate would likely be higher than it already is. We find the lowest “Negative” impact rate of dedicating a year or more to their child for immigrant participants (41.1%). This result is coherent with the literature associating immigration in France with a low-SES and, thus, more exposition to unemployment than high-SES immigrants or French participants. These findings underscore the multifaceted nature of costs (beyond a financial one) associated with childcare decisions, implying career and well-being considerations.

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| Positive       | 59.9                       | 57.1                                | 43.0                    |
| Negative       | 20.0                       | 21.4                                | 29.5                    |
| Don't know yet | 9.0                        | 11.9                                | 18.7                    |
| No impact      | 11.1                       | 9.5                                 | 8.8                     |

Table 7. a. If you decide to dedicate yourself to your child for 1 year or more, would it have a rather positive, negative, or no impact on your well-being?

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| Positive       | 11.1                       | 8.5                                 | 10.1                    |
| Negative       | 55.4                       | 71.3                                | 73.9                    |
| Don't know yet | 9.4                        | 6.4                                 | 4.3                     |
| No impact      | 24.1                       | 13.8                                | 11.8                    |

Table 7. b. And on your budget/income?

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| Positive       | 6.1                        | 1.1                                 | 4.5                     |
| Negative       | 41.1                       | 53.2                                | 48.5                    |
| Don't know yet | 12.6                       | 6.4                                 | 5.7                     |
| No impact      | 40.2                       | 39.4                                | 41.4                    |

Table 7. c. And on your career/the ease of finding a job again?

### 7.1.3. Intention To Use Formal Childcare

Most participants across all three groups expressed intentions to use formal childcare arrangements after their child(ren) birth. However, a notable finding is that almost a quarter of immigrant participants do not plan to utilize formal childcare, which is more than twice the rate of high-SES immigrant participants (10.6%). This suggests that if we excluded high-SES immigrant participants from the general immigrant participant pool, the rate of immigrant participants not planning to use formal childcare would likely be even higher. From this, we can infer that among middle/low-SES immigrant participants, more than a quarter do not plan to use formal childcare arrangements after their child(ren) birth at the baseline level (refer to Table 8).

The Romainville FG (low-SES) revealed initial mixed feelings about childcare among participants, with one immigrant participant mentioning that childcare was not a priority for her. Still, as her pregnancy progressed, she recognized its importance. During the discussion, concerns were raised about the cost of nannies and childminders and the potential negative impact of children developing strong attachments to one specific caregiver. These elements underscore the complex childcare decision-making process among immigrant participants, influenced by knowledge, priorities, timing, and evolving perspectives. These insights into the intentions and attitudes towards childcare shed light on the diverse considerations immigrant parents navigate when making childcare-related decisions for their children.

|               | <b>Immigrant Participants (%)</b> | <b>High-SES Immigrant Participants (%)</b> | <b>French Participants (%)</b> |
|---------------|-----------------------------------|--|--------------------------------|
| Plan To       | 75.3                              | 89.4                                       | 83.8                           |
| Don't plan to | 24.7                              | 10.6                                       | 16.2                           |

Table 8. Ideally, would you like to use childcare before your child starts kindergarten, even occasionally?

The intensity of childcare needs varies across the different groups, with high-SES immigrants standing out once more with the highest rate of full-time need for childcare arrangements (see Table 9). This further widens the gap between high-SES immigrants and the general immigrant pool, highlighting a less intense childcare requirement for the general immigrant pool. It also emphasizes the proximity to the French participants' full-time requirements. Insights from the Parisian FG (high-SES) further illuminate the motivations behind childcare needs. Participants (immigrants and French) mentioned the importance of outside socialization for their children and their professional occupations to motivate their decisions concerning childcare. These elements in motivation suggest a nuanced approach to childcare decisions among immigrant participants, where childcare needs evolve with family dynamics, priorities, and working status.

|                | <b>Immigrant Participants (%)</b> | <b>High-SES Immigrant Participants (%)</b> | <b>French Participants (%)</b> |
|----------------|-----------------------------------|--|--------------------------------|
| Full-time      | 46.8                              | 68.1                                       | 62.4                           |
| Occasionally   | 24.2                              | 19.1                                       | 20.9                           |
| Never          | 6.7                               | 2.1  | 6.0                            |
| Not applicable | 16.1                              | 8.5  | 8.3                            |
| Don't know yet | 6.2                               | 2.1  | 2.3                            |

Table 9. The childcare arrangement that would best meet your needs would be...

Interestingly, nearly a quarter of immigrant participants express a preference for taking care of their child(ren) themselves or having relatives do so until their child(ren) reaches kindergarten age, typically around three years old (refer to Table 10). This preference is mirrored by a similar rate among high-SES immigrant participants, which may be surprising considering previous data indicating that a significant portion of the high-SES immigrant pool plans to use formal childcare arrangements full-time. This suggests a potential conflict between what they feel compelled to choose for practical reasons, such as work constraints, given that high-SES immigrant participants are active mothers and their ideal preference for childcare arrangements. Conversely, the data for immigrant and French participants paint a different picture, with 24.9% and 18.9%, respectively, preferring their child(ren) to be looked after by themselves or relatives until kindergarten entry. These preferences align more closely with previous insights about their plans to use formal childcare arrangements, suggesting a preference from immigrant participants for opting for childcare arrangements slightly later than the other two groups.



Insights from the Romainville FG further shed light on this trend, with one mother sharing her experience of having two daughters, one of whom began attending daycare a few months before starting kindergarten.

|                                 | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|---------------------------------|----------------------------|-------------------------------------|-------------------------|
| Until kindergarten entry        | 24.9                       | 24.5                                | 18.9                    |
| During the first year           | 19.8                       | 22.3                                | 20.7                    |
| During their first nine months  | 6.4                        | 9.6                                 | 10.0                    |
| During their first six months   | 17.9                       | 23.4                                | 29.2                    |
| During their first three months | 9.7                        | 5.3                                 | 9.3                     |
| Never                           | 0.1                        | 0.0                                 | 0.6                     |
| Don't know                      | 2.1                        | 2.1                                 | 1.5                     |
| Not applicable                  | 19.1                       | 12.8                                | 9.8                     |

Table 10. In your opinion, what would be best for your child, to be taken care of by you or your relatives...

The initial phase of the research reveals a gap in knowledge about childcare arrangements between immigrant and French participants, echoing the literature on this subject. While French participants generally exhibit greater knowledge, particularly in formal childcare options like daycares and childminders, the disparities between immigrant and French participants are not as pronounced as anticipated. Our results suggest that information about less familiar arrangements does not reach all parents, irrespective of immigration or socioeconomic status. Notably, high-SES immigrant participants stand out from the immigrant group encompassing all SES, displaying knowledge, perceptions, and intentions levels closer to that of French participants. The lack of awareness and knowledge about public subsidies, especially among the general immigrant participants group, poses a significant barrier to accessing formal childcare, potentially leading to misconceptions about affordability. Perceived accessibility to formal childcare arrangements is generally negative among all groups, particularly pronounced among immigrant participants, possibly due to language barriers and complex administrative procedures. Furthermore, while most participants plan to use formal childcare, many immigrant participants do not intend to. The insights from the Romainville and Paris focus groups provide valuable context to these findings, highlighting personal experiences and perspectives shaping participants' attitudes towards formal childcare.

These findings support our initial hypotheses regarding immigrant participants' knowledge and intentions regarding childcare arrangements compared to French participants and the divergence in perspectives and pre-existing knowledge between immigrant and high-SES immigrant participants. The validation of these hypotheses sets the stage for a deeper investigation into the causal relationship between the treatment and the behavioral barriers immigrant participants face in access to formal childcare. This examination aims to uncover how the treatments impact the variables of knowledge, perceptions, and intentions and the current use of formal childcare. Understanding these effects will provide valuable insights into the effectiveness of the intervention, designed to improve access to information, dispel misconceptions, and facilitate informed decision-making regarding formal childcare. Moving forward, we aim to validate or reject the following final hypotheses:

3. The intervention is expected to have a more significant impact on participants with an immigrant background, leading to improved knowledge and increased intentions to utilize childcare facilities.

4. We anticipate that the intervention may have a diminished impact on high-SES immigrant participants compared to a general immigrant group encompassing all SES.
5. Given the differences in treatments (1,2), the treatment effect is expected to be more pronounced for immigrant participants in T2 than T1, resulting in a greater reduction of behavioral barriers for T2 at the post-treatment level.

## 7.2. Insights From The End-line Survey And Treatment Effects

### 7.2.1. Post-Treatment Evolution: Changes, Gaps, and Trends

In analyzing the use of formal childcare among different participant groups, a notable trend emerges in the general immigrant participant pool (see Table 11). Compared to the control group and T1, T2 immigrant participants exhibit a higher rate of childcare arrangements usage post-treatment (46.0%). Specifically, T2 immigrant participants demonstrate a utilization rate that, although lower than that of T2 high-SES immigrant participants, surpasses that of the control group and T1, suggesting a positive impact of the intervention on childcare utilization.

When looking at the rates of childcare utilization for immigrant and French participants across all groups, we notice that treatment groups (T1, T2) generally show the highest rates compared to the respective control groups (see Table 11). Also, the utilization rates of T1 are lower than T2 for both immigrant, high-SES immigrants, and French participants, displaying what we could interpret as an intensity effect resulting from a more intense treatment (T2). These results could indicate the effectiveness of the treatments in breaking barriers to access to formal childcare options. Although immigrant and French participants show a linear increased uptake of childcare arrangements according to treatment levels, high-SES immigrant participants do not entirely follow this trend. The control group of high-SES immigrant participants, who did not receive any treatment, showed a relatively high rate of childcare arrangements use, with 72.2%, compared to T1, with 68.4%. This slight decrease between the control group and T1 might suggest a weak-to-null treatment effect on high-SES immigrant participants. It is possible that this group, who may already have higher knowledge and access to resources, was less influenced by the intervention than others. These findings suggest a nuanced effect of the intervention on different participant categories.

|         | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|---------|----------------------------|-------------------------------------|-------------------------|
| Control | 37.6                       | 72.2                                | 65.8                    |
| T1      | 36.5                       | 68.4                                | 66.9                    |
| T2      | 46.0                       | 78.8                                | 67.5                    |

Table 11. Use of childcare arrangement(s) post-intervention

In line with the challenges highlighted in the interdisciplinary state of knowledge, results confirm that obtaining the desired childcare arrangement represents a significant behavioral barrier for many participants across immigration and socioeconomic status. The application process, known for its administrative complexity, presents hurdles for parents seeking to secure the right childcare option. Results align with these literature-based expectations. Among the T2 participants, the highest satisfaction rate of 42% is observed for immigrant participants (see Table 12). However, this rate is surpassed by immigrant participants from the T1 group.



Interestingly, the group with the highest level of dissatisfaction is T2 of high-SES immigrant participants, with 69.7% of them indicating that they would have preferred to use another childcare arrangement.

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b> | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 59.7                       | 55.6                                | 67.8                    |
| No             | 40.3                       | 44.4                                | 32.2                    |
| <b>T1</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 56.9                       | 42.1                                | 68.8                    |
| No             | 43.1                       | 57.9                                | 31.2                    |
| <b>T2</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 58.0                       | 69.7                                | 60.4                    |
| No             | 42.0                       | 30.3                                | 39.6                    |

Table 12. Would you have wanted to use another childcare arrangement?

This disparity in used-versus-wanted childcare arrangements suggests that applying treatment, particularly in T2, where participants received the highest degree of treatment, does not necessarily guarantee attaining desired childcare arrangements. Consequently, it is challenging to definitively suggest that receiving the treatment significantly impacted the ability to secure desired childcare arrangements. The disparity in satisfaction levels across participant groups highlights the underlying complexity of factors influencing childcare decisions and the limitations of the intervention in addressing all facets of these challenges.

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b> | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 77.9                       | 83.3                                | 78.0                    |
| No             | 6.6                        | 11.1                                | 9.5                     |
| Don't know yet | 11.6                       | 5.6                                 | 3.7                     |
| Not applicable | 3.9                        | 0.0                                 | 8.8                     |
| <b>T1</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 74.6                       | 78.9                                | 80.5                    |
| No             | 11.0                       | 15.8                                | 7.1                     |
| Don't know yet | 9.4                        | 0.0                                 | 4.1                     |
| Not applicable | 5.0                        | 5.3                                 | 8.3                     |
| <b>T2</b>      | 100.0                      | 100.0                               | 100.0                   |
| Yes            | 82.5                       | 84.8                                | 80.8                    |
| No             | 5.0                        | 6.1                                 | 7.2                     |
| Don't know yet | 11.0                       | 3.0                                 | 4.2                     |
| Not applicable | 1.5                        | 6.1                                 | 7.9                     |

Table 13. Would using childcare be manageable daily in terms of schedules? (End-line)

Building upon the complexities of obtaining desired childcare arrangements, our exploration now delves into shifts in participants' perceptions and attitudes towards the accessibility of formal childcare daily. This investigation provides valuable insights into how the intervention may have influenced their understanding and considerations regarding childcare schedules. In comparison to the baseline stage, where participants' responses were examined, there is a noticeable growth in the percentage of "yes" responses to the question "Would using childcare be manageable daily in terms of schedules?" (see Table 13). This observed increase suggests a positive trend toward the feasibility of incorporating childcare into participants' daily routines. For immigrant participants, this rise in "yes" responses seems to align with their receipt of the treatment. This indicates that the increase in information and administrative support regarding childcare arrangements might have dispelled misconceptions, fostering more thoughtful

consideration and envisioning childcare as a manageable aspect of their daily lives. Data from both FGs testify to this. Additionally, the significant decrease in "don't know" responses compared to the baseline stage among immigrant participants carries newfound clarity regarding formal childcare arrangements and their associated schedules. This reduction in uncertainty could indicate a greater sense of understanding and confidence in navigating the logistics of formal childcare arrangements. Conversely, high-SES immigrant participants exhibit a different trajectory than the broader immigrant group. There is a decrease in "yes" responses compared to the baseline survey for the control group and an increase in "don't know" responses for both the T2 and control groups. This divergence suggests that high-SES immigrant participants may harbor unique considerations or reservations regarding the manageability of childcare schedules, which were not fully addressed by the intervention.

At the baseline level, 75.3% of immigrant participants expressed their intentions to use a formal childcare arrangement upon the birth of their child(ren). This initial indication set the stage for understanding their plans and expectations regarding childcare application rates. Upon analyzing the end-line survey data, we observe notable discontinuity between the initially expressed intentions and the final application rates for formal childcare arrangements across all population groups (see Tables 8 & 14).

We notice a trend of an increasing rate of applications with the treatment among immigrants and French participants, highlighting the influence of the intervention on their decisions to seek formal childcare options. In the Romainville FG, two immigrant participants shared how they barely considered opting for formal childcare at the beginning of their pregnancies. Nevertheless, they shared how they ended up knowing more about it and ultimately applying and using it thanks to the program, shedding light on the impact of treatment on immigrant participants' knowledge and changes of intentions compared to the baseline level. On the other hand, application rates among high-SES immigrant participants present an intriguing pattern. Despite their high baseline rate of 88.9% expressing positive intentions to apply for formal childcare arrangements, the end-line rates in T1 (89.5%) and T2 (84.8%) do not follow a linear progression influenced by the treatments. This divergence raises questions about the impact of the treatment on this specific population. It appears that receiving the treatment may not directly influence applications to formal childcare arrangements for high-SES immigrant participants, as their rates remain consistently high across all three subgroups. This prompts further reflection on the program's effectiveness in addressing this particular demographic's needs and preferences.

|                | <b>Immigrant Participants (%)</b> | <b>High-SES Immigrant Participants (%)</b> | <b>French Participants (%)</b> |
|----------------|-----------------------------------|--|--------------------------------|
| <b>Control</b> | 100.0                             | 100.0                                      | 100.0                          |
| Yes            | 64.1                              | 88.9                                       | 80.0                           |
| No             | 35.9                              | 11.1                                       | 20.0                           |
| <b>T1</b>      | 100.0                             | 100.0                                      | 100.0                          |
| Yes            | 64.1                              | 89.5                                       | 80.8                           |
| No             | 35.9                              | 10.5                                       | 19.2                           |
| <b>T2</b>      | 100.0                             | 100.0                                      | 100.0                          |
| Yes            | 74.0                              | 84.8                                       | 82.3                           |
| No             | 26.0                              | 15.2                                       | 17.7                           |

Table 14. Have you applied or registered for childcare options for your babies?

Among immigrant participants, more individuals applied to at least five childcare arrangements in both treatment groups (see Table 15). In the control group, 13.0% pursued this breadth of exploration, compared to 19.0% in both T1 and T2. This upward trend suggests that the intervention, particularly in the form of informational content and administrative support, may have broadened immigrant participants' understanding and consideration of various childcare options or motivated them to send several applications to a specific childcare type. In contrast, high-SES immigrant participants display a different pattern. Despite their initial intent for formal childcare utilization, the rates for at least five applications differ from 13.5% in the control group to 9.8% in T1. This divergence raises questions about the efficiency of the treatment for this group, especially regarding the first treatment phase, which focused on informational content delivered via text messages and videos.

A noteworthy observation emerges when considering the maximum number of 9 childcare arrangements applied for by participants. In both groups of immigrant participants, only individuals who received the second treatment (T2) reached this maximum threshold. This finding implies a hint of a correlation between receiving the second treatment (T2) and a greater awareness of the diversity of available childcare arrangements or more persistence with several applications sent to the same type of arrangement. The intervention appears to have equipped participants with a deeper knowledge base, allowing them to consider a broader range of options when making decisions about childcare. These results underscore the multifaceted impact of the intervention on immigrant participants' childcare exploration, from increasing application rates to encouraging a more thorough consideration of diverse childcare options. However, the differing trends among high-SES immigrant participants warrant further examination into the specific mechanisms through which the intervention influences their decisions and behaviors regarding childcare arrangements (see Table 15).

|                | <b>Immigrant Participants (%)</b> | <b>High-SES Immigrant Participants (%)</b> | <b>French Participants (%)</b> |
|----------------|-----------------------------------|--|--------------------------------|
| <b>Control</b> | 100.0                             | 100.0                                      | 100.0                          |
| 1              | 1.5                               | 0.0  | 2.2                            |
| 2              | 3.0                               | 10.8                                       | 5.1                            |
| 3              | 50.0                              | 32.4                                       | 27.4                           |
| 4              | 32.6                              | 43.2                                       | 37.3                           |
| 5              | 13.0                              | 13.5                                       | 18.3                           |
| 6              | 0.0                               | 0.0  | 5.5                            |
| 7              | 0.0                               | 0.0  | 2.6                            |
| 8              | 0.0                               | 0.0  | 0.0                            |
| 9              | 0.0                               | 0.0  | 1.6                            |
| <b>T1</b>      | 100.0                             | 100.0                                      | 100.0                          |
| 1              | 2.0                               | 2.0  | 3.1                            |
| 2              | 2.7                               | 0.0  | 2.7                            |
| 3              | 47.8                              | 41.2                                       | 29.1                           |
| 4              | 28.5                              | 47.1                                       | 34.1                           |
| 5              | 10.2                              | 9.8  | 25.2                           |
| 6              | 6.1                               | 0.0  | 5.8                            |
| 7              | 0.0                               | 0.0  | 0.0                            |
| 8              | 2.7                               | 0.0  | 0.0                            |
| 9              | 0.0                               | 0.0  | 0.0                            |
| <b>T2</b>      | 100.0                             | 100.0                                      | 100.0                          |
| 1              | 1.3                               | 1.1  | 2.4                            |
| 2              | 1.1                               | 4.5  | 2.7                            |
| 3              | 43.7                              | 16.9                                       | 25.3                           |
| 4              | 34.5                              | 40.4                                       | 37.8                           |
| 5              | 5.4                               | 5.6  | 22.0                           |
| 6              | 3.2                               | 13.5                                       | 6.1                            |
| 7              | 3.8                               | 7.9  | 2.4                            |
| 8              | 2.2                               | 0.0  | 1.4                            |
| 9              | 4.9                               | 10.1                                       | 0.0                            |

Table 15. Number of Applications

The “traditional model,” as described by Leseman (2002), is often more prevalent in less privileged classes, influenced by cultural backgrounds and the education parents received themselves (Wolf, 2020). Despite this association, our findings challenge our expectations, particularly for high-SES immigrant participants. When asked about the statement, "When a mother works to earn money, the children suffer," the control group of high-SES immigrant participants displayed the highest rate of agreement at 27.8%. This deviation from the expected trend that would have displayed the highest rate among immigrant participants suggests that cultural backgrounds and the education received by high-SES immigrant participants may carry more weight in influencing their beliefs than in their SES category. It appears that these individuals may hold onto “traditional beliefs” regarding the impact of maternal employment on children despite their higher SES background. In contrast, there was almost unanimous disagreement among all participants across all treatment groups with the statement, "Having a job is good, but what most women want is a home and children." This widespread disagreement indicates a departure from traditional norms regarding women's desires and societal roles. Interestingly, when considering the impact of the treatment on participants' responses to these statements, we find a weak to-null effect. There is no clear linear trend in answers when accounting for the treatment groups. This suggests that the cultural background and the education received by participants themselves may have a stronger influence on their beliefs

and responses to these traditional statements than the treatment they received. The intervention does not appear to have significantly shifted participants' perspectives on these traditional beliefs, highlighting the enduring influence of cultural norms and individual experiences on attitudes toward work and family.

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b> | 100.0                      | 100.0                               | 100.0                   |
| True           | 21.5                       | 27.8                                | 17.3                    |
| False          | 78.5                       | 72.2                                | 82.7                    |
| <b>T1</b>      | 100.0                      | 100.0                               | 100.0                   |
| True           | 20.4                       | 5.3                                 | 16.9                    |
| False          | 79.6                       | 94.7                                | 83.1                    |
| <b>T2</b>      | 100.0                      | 100.0                               | 100.0                   |
| True           | 15.5                       | 18.2                                | 11.7                    |
| False          | 84.5                       | 81.8                                | 88.3                    |

Table 16. Are you in agreement or not with the following opinion: 'When a mother works to earn money, the children suffer'?

|                | Immigrant Participants (%) | High-SES Immigrant Participants (%) | French Participants (%) |
|----------------|----------------------------|-------------------------------------|-------------------------|
| <b>Control</b> | 100.0                      | 100.0                               | 100.0                   |
| True           | 16.6                       | 0.0                                 | 14.6                    |
| False          | 83.4                       | 100.0                               | 85.4                    |
| <b>T1</b>      | 100.0                      | 100.0                               | 100.0                   |
| True           | 17.7                       | 5.3                                 | 14.3                    |
| False          | 82.3                       | 94.7                                | 85.7                    |
| <b>T2</b>      | 100.0                      | 100.0                               | 100.0                   |
| True           | 16.0                       | 15.2                                | 12.8                    |
| False          | 84.0                       | 84.8                                | 87.2                    |

Table 17. Are you in agreement or not with the following opinion: 'Having a job is good, but what most women really want is a home and children'?

### 7.2.2. Difference-In-Differences : Treatment Effects

Having delved into the various aspects of our findings, which shed light on the end-line survey results and hinted at correlations and potential treatment effects, it is now imperative to empirically assess these observations. Specifically, we aim to establish or reject our hypotheses regarding the treatment's impact on immigrant participants' access to formal childcare by mitigating behavioral barriers. To rigorously assess the treatment's effect on knowledge, perceptions, intentions, and use of formal childcare arrangements, we focused on six survey questions in both the baseline and end-line questionnaires, thus enabling the calculation of the Diff-in-Diff coefficient ( $T\Delta$ ). These questions were key indicators for evaluating the treatment effect using the difference-in-differences (Diff-in-Diff) methodology. This method allows us to examine changes over time while accounting for the treatment and control groups, providing a robust framework for assessing the treatment's effectiveness.

#### 7.2.2.1. Subsidies: Do You Think The Price Changes Depending On How Much Parents Earn? (Table 18)

To delve deeper into the impact of the intervention on knowledge levels regarding public subsidies for formal childcare arrangements, we examined specifically the question “Do you think the price changes depending on how much parents earn?” asked in both the baseline and

end-line surveys. Understanding these subsidies is crucial, as they enable individuals to benefit from reduced price rates for childcare arrangements based on their earnings. However, our initial findings revealed a significant gap in this knowledge, with almost one-third of immigrant participants in our sample not knowing if the price changed depending on how much parents earn, as illustrated in Table 1. This lack of knowledge poses a notable barrier to accessing formal childcare, potentially leading to misconceptions about its financial implications. Such misunderstandings could portray childcare as a financial obstacle, deterring individuals from seeking formal childcare services or information about them.

Conducting a Diff-in-Diff analysis to assess changes over time, we initially observed an improvement in knowledge about subsidies among T2 across all participant categories by comparing end-line outcomes to baseline data. Notably, immigrant participants in T2 showed the greatest improvement, with an increase of 9.3% in knowledge about public subsidies. However, while appearing significant, this improvement was insufficient to bridge the gap between immigrant participants in T2 and their high-SES counterparts or French participants.

Surprisingly, we noticed a decreased knowledge about subsidies among T1 high-SES immigrant participants, contradicting the general trend observed in the end-line survey. This discrepancy, which could be explained by participants opting out of the project after participating in the baseline survey, prompted us to delve deeper into the Diff-in-Diff coefficients, representing the estimated treatment effect relative to the control group. These coefficients, however, seemed incoherent with the results obtained from the end-line survey. We conduct a regression analysis to determine whether these coefficients are statistically significant—whether the observed differences were likely due to the treatment and not simply random variations. The regression results yielded a p-value greater than 0.05 (for both T1 and T2), indicating that the observed treatment effect on knowledge about subsidies cannot be statistically significant.

Therefore, based on our empirical analysis, it is challenging to definitively conclude that the treatment significantly increased knowledge of subsidies among immigrant participants, including those from high-SES backgrounds. This finding underscores the complexity of the intervention's impact on specific knowledge domains. It highlights the need for further exploration into the nuanced effects of the intervention on different subgroups within the participant populations.

#### 7.2.2.2. “In Your Opinion, Having A Place In A Crèche (Daycare) Will/Would Be...” (Table 19)

This second question delves into the perceived accessibility to daycare services, providing insight into the general perceived accessibility to formal childcare arrangements. Initially, the baseline survey paints a picture of an overall negative perception of access to crèches (daycares) across all participant groups, as depicted in Table 2. Participants mentioned the burdensome administrative process during focus groups, which brought together immigrant and non-immigrant participants from the same SES category. Survey responses regarding crèche

accessibility revealed a perceived difficulty among immigrant participants, evidenced by the highest "don't know" response rate among all intervention groups. This suggests a prevalent lack of information or understanding regarding accessing daycare services. The focus group held in Romainville (comprising low-SES participants) supported these findings, providing valuable insights into the challenges faced by participants. They expressed a general sense of confusion regarding admissions. Despite the widespread perception of difficulty, it is notable that the "don't know" response rate was low for high-SES immigrant and French participants, with French participants in T2 reporting almost 0.0% of "don't know" responses. This suggests an awareness among these groups of childcare access challenges at the baseline stage.

When comparing baseline and end-line data, we do not identify a clear trend in evolutions, as the changes seem unique to specific participant populations. Utilizing the Diff-in-Diff analysis, we generate coefficients representing the treatment effect on the outcome. We conduct a regression analysis to ascertain whether these coefficients are statistically significant (attributed to the treatment rather than random variation). Among immigrant groups, statistical significance was found for T2 with the treatment coefficient for "quite easy" as an answer to the question of accessibility, yielding a p-value of 0.005. The impact of the treatment on "very difficult" was also found to be significant for T1 with a p-value of 0.02 (see Annex 3.). The smaller p-value for T2 indicates a higher level of statistical significance. Therefore, we interpret the results as follows: the treatment impact on immigrant participants in T2 is a 3% increase in considering access to crèche (daycare) as "quite easy" relative to the control group. Additionally, the treatment impact on immigrant participants in T1 is a decrease of 6.6% in considering access to crèche (daycare) as "very difficult" relative to the control group. A causal relationship can be established between the treatment and improvements in perceived accessibility to childcare arrangements for immigrant participants. For the other coefficients that were not proven statistically significant, we conclude that they are likely due to random variations. Interestingly, the impact of the treatment was not found to be statistically significant for any Diff-in-Diff coefficient of the high-SES immigrant group, highlighting the weak-to-null treatment effect on this particular population, although included in the larger "immigrant participants" group. This finding underscores the need for further investigation into the effectiveness of the intervention among high-SES immigrant participants.

|                | Immigrant Participants (%) |         |      |      |      | High-SES Immigrant Participants (%) |         |       |        |       | French Participants (%) |         |      |      |      |
|----------------|----------------------------|---------|------|------|------|-------------------------------------|---------|-------|--------|-------|-------------------------|---------|------|------|------|
|                | Baseline                   | Endline | EΔ   | AΔ   | TΔ   | Baseline                            | Endline | EΔ    | AΔ     | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b> | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |        |       | 100.0                   | 100.0   |      |      |      |
| Yes            | 69.2                       | 83.4    | 0.0  | 0.0  |      | 80.0                                | 0.0     | 0.0   | 0.0    |       | 91.0                    | 96.3    | 0.0  | 0.0  |      |
| No/don't know  | 30.8                       | 16.6    | 0.0  | 0.0  |      | 20.0                                | 100.0   | 0.0   | 0.0    |       | 9.0                     | 3.7     | 0.0  | 0.0  |      |
| <b>T1</b>      | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |        |       | 100.0                   | 100.0   |      |      |      |
| Yes            | 65.9                       | 84.5    | -3.3 | 1.1  | 4.4  | 85.7                                | 0.0     | 5.7   | 0.0    | -5.7  | 91.8                    | 94.4    | 0.9  | -1.9 | -2.8 |
| No/don't know  | 34.1                       | 15.5    | 3.3  | -1.1 | -4.4 | 14.3                                | 100.0   | -5.7  | 0.0    | 5.7   | 8.2                     | 5.6     | -0.9 | 1.9  | 2.8  |
| <b>T2</b>      | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |        |       | 100.0                   | 100.0   |      |      |      |
| Yes            | 69.7                       | 79.0    | 0.6  | -4.4 | -5.0 | 92.7                                | 100.0   | 12.7  | 100.0  | 87.3  | 94.5                    | 95.5    | 3.5  | -0.8 | -4.3 |
| No/don't know  | 30.3                       | 21.0    | -0.6 | 4.4  | 5.0  | 7.3                                 | 0.0     | -12.7 | -100.0 | -87.3 | 5.5                     | 4.5     | -3.5 | 0.8  | 4.3  |

Table 18. Do you think the price changes depending on how much parents earn? EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient. P-values > 0.05

|                   | Immigrant Participants (%) |         |      |       |       | High-SES Immigrant Participants (%) |         |       |       |       | French Participants (%) |         |      |      |      |
|-------------------|----------------------------|---------|------|-------|-------|-------------------------------------|---------|-------|-------|-------|-------------------------|---------|------|------|------|
|                   | Baseline                   | Endline | EΔ   | AΔ    | TΔ    | Baseline                            | Endline | EΔ    | AΔ    | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b>    | 100.0                      | 100.0   |      |       |       | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Strongly agree    | 22.5                       | 64.6    | 0.0  | 0.0   |       | 32.0                                | 72.2    | 0.0   | 0.0   |       | 36.3                    | 53.6    | 0.0  | 0.0  |      |
| Quite agree       | 39.5                       | 15.5    | 0.0  | 0.0   |       | 52.0                                | 16.7    | 0.0   | 0.0   |       | 42.4                    | 28.1    | 0.0  | 0.0  |      |
| Quite disagree    | 13.8                       | 5.0     | 0.0  | 0.0   |       | 4.0                                 | 11.1    | 0.0   | 0.0   |       | 16.0                    | 12.2    | 0.0  | 0.0  |      |
| Strongly disagree | 21.7                       | 13.3    | 0.0  | 0.0   |       | 12.0                                | 0.0     | 0.0   | 0.0   |       | 3.5                     | 5.4     | 0.0  | 0.0  |      |
| Don't know        | 2.4                        | 1.7     | 0.0  | 0.0   |       | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 1.7                     | 0.7     | 0.0  | 0.0  |      |
| <b>T1</b>         | 100.0                      | 100.0   |      |       |       | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Strongly agree    | 29.4                       | 53.0    | 6.8  | -11.6 | -18.4 | 42.9                                | 57.9    | 10.9  | -14.3 | -25.2 | 37.5                    | 55.3    | 1.1  | 1.7  | 0.6  |
| Quite agree       | 35.3                       | 26.0    | -4.2 | 10.5  | 14.7  | 42.9                                | 21.1    | -9.1  | 4.4   | 13.5  | 44.7                    | 30.1    | 2.3  | 1.9  | -0.3 |
| Quite disagree    | 11.5                       | 8.8     | -2.3 | 3.9   | 6.2   | 3.6                                 | 10.5    | -0.4  | -0.6  | -0.2  | 10.6                    | 9.4     | -5.4 | -2.8 | 2.6  |
| Strongly disagree | 20.2                       | 12.2    | -1.5 | -1.1  | 0.4   | 10.7                                | 10.5    | -1.3  | 10.5  | 11.8  | 6.0                     | 3.8     | 2.6  | -1.7 | -4.2 |
| Don't know        | 3.6                        | 0.0     | 1.2  | -1.7  | -2.9  | 0.0                                 | 0.0     | 0.0   | 0.0   | 0.0   | 1.2                     | 1.5     | -0.5 | 0.8  | 1.4  |
| <b>T2</b>         | 100.0                      | 100.0   |      |       |       | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Strongly agree    | 28.8                       | 54.0    | 6.3  | -10.6 | -16.9 | 41.5                                | 51.5    | 9.5   | -20.7 | -30.2 | 35.0                    | 50.9    | -1.4 | -2.6 | -1.2 |
| Quite agree       | 32.8                       | 24.5    | -6.7 | 9.0   | 15.7  | 39.0                                | 36.4    | -13.0 | 19.7  | 32.7  | 44.7                    | 32.5    | 2.2  | 4.3  | 2.1  |
| Quite disagree    | 18.8                       | 7.5     | 5.0  | 2.5   | -2.5  | 9.8                                 | 12.1    | 5.8   | 1.0   | -4.7  | 15.5                    | 10.6    | -0.5 | -1.6 | -1.2 |
| Strongly disagree | 15.9                       | 13.0    | -5.9 | -0.3  | 5.6   | 9.8                                 | 0.0     | -2.2  | 0.0   | 2.2   | 4.5                     | 5.7     | 1.0  | 0.2  | -0.8 |
| Don't know        | 3.7                        | 1.0     | 1.3  | -0.7  | -2.0  | 0.0                                 | 0.0     | 0.0   | 0.0   | 0.0   | 0.3                     | 0.4     | -1.4 | -0.3 | 1.1  |

Table 20. If I need information about childcare options, I know how to find them.

EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient. P-value = 0.02 ("Strongly agree"; Immigrant participants in T1). P-value = 0.03 ("Strongly agree"; Immigrant participants in T2). P-value = 0.01 ("Quite agree"; Immigrant participants in T1). P-value = 0.03 ("Quite agree"; Immigrant participants in T2).



|                   | Immigrant Participants (%) |         |      |       |      | High-SES Immigrant Participants (%) |         |       |       |       | French Participants (%) |         |      |      |      |
|-------------------|----------------------------|---------|------|-------|------|-------------------------------------|---------|-------|-------|-------|-------------------------|---------|------|------|------|
|                   | Baseline                   | Endline | EΔ   | AΔ    | TΔ   | Baseline                            | Endline | EΔ    | AΔ    | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b>    | 100.0                      | 100.0   |      |       |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Quite difficult   | 33.2                       | 27.1    | 0.0  | 0.0   |      | 40.0                                | 11.1    | 0.0   | 0.0   |       | 27.0                    | 21.0    | 0.0  | 0.0  |      |
| Quite easy        | 7.5                        | 3.9     | 0.0  | 0.0   |      | 4.0                                 | 5.6     | 0.0   | 0.0   |       | 8.4                     | 5.8     | 0.0  | 0.0  |      |
| Impossible        | 1.2                        | 3.9     | 0.0  | 0.0   |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 6.1                     | 6.4     | 0.0  | 0.0  |      |
| Don't know        | 14.2                       | 8.3     | 0.0  | 0.0   |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 4.4                     | 0.7     | 0.0  | 0.0  |      |
| Almost impossible | 5.1                        | 7.2     | 0.0  | 0.0   |      | 8.0                                 | 22.2    | 0.0   | 0.0   |       | 12.2                    | 18.3    | 0.0  | 0.0  |      |
| Very difficult    | 37.5                       | 48.6    | 0.0  | 0.0   |      | 48.0                                | 61.1    | 0.0   | 0.0   |       | 40.7                    | 46.1    | 0.0  | 0.0  |      |
| Very easy         | 1.2                        | 1.1     | 0.0  | 0.0   |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 1.2                     | 1.7     | 0.0  | 0.0  |      |
| <b>T1</b>         | 100.0                      | 100.0   |      |       |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Quite difficult   | 30.2                       | 33.7    | -3.0 | 6.6   | 9.7  | 42.9                                | 10.5    | 2.9   | -0.6  | -3.4  | 27.2                    | 22.6    | 0.2  | 1.5  | 1.4  |
| Quite easy        | 9.9                        | 7.7     | 2.4  | 3.9   | 1.5  | 3.6                                 | 0.0     | -0.4  | -5.6  | -5.1  | 9.1                     | 5.6     | 0.6  | -0.1 | -0.8 |
| Impossible        | 3.2                        | 6.1     | 2.0  | 2.2   | 0.2  | 10.7                                | 10.5    | 10.7  | 10.5  | -0.2  | 4.2                     | 5.3     | -1.9 | -1.2 | 0.7  |
| Don't know        | 17.9                       | 5.5     | 3.6  | -2.8  | -6.4 | 7.1                                 | 0.0     | 7.1   | 0.0   | -7.1  | 5.1                     | 1.5     | 0.8  | 0.8  | 0.1  |
| Almost impossible | 4.8                        | 8.8     | -0.4 | 1.7   | 2.0  | 7.1                                 | 21.1    | -0.9  | -1.2  | -0.3  | 12.1                    | 19.5    | -0.1 | 1.2  | 1.4  |
| Very difficult    | 32.5                       | 37.0    | -5.0 | -11.6 | -6.6 | 25.0                                | 52.6    | -23.0 | -8.5  | 14.5  | 39.9                    | 44.0    | -0.8 | -2.1 | -1.3 |
| Very easy         | 1.6                        | 1.1     | 0.4  | 0.0   | -0.4 | 3.6                                 | 5.3     | 3.6   | 5.3   | 1.7   | 2.4                     | 1.5     | 1.3  | -0.2 | -1.4 |
| <b>T2</b>         | 100.0                      | 100.0   |      |       |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Quite difficult   | 29.5                       | 20.5    | -3.7 | -6.6  | -2.9 | 31.7                                | 9.1     | -8.3  | -2.0  | 6.3   | 27.8                    | 26.0    | 0.8  | 5.0  | 4.2  |
| Quite easy        | 12.2                       | 11.5    | 4.7  | 7.6   | 3.0  | 0.0                                 | 9.1     | -4.0  | 3.5   | 7.5   | 7.4                     | 4.2     | -1.0 | -1.6 | -0.6 |
| Impossible        | 0.7                        | 4.5     | -0.4 | 0.6   | 1.1  | 0.0                                 | 12.1    | 0.0   | 12.1  | 12.1  | 3.6                     | 3.8     | -2.5 | -2.7 | -0.1 |
| Don't know        | 12.9                       | 4.0     | -1.3 | -4.3  | -3.0 | 4.9                                 | 0.0     | 4.9   | 0.0   | -4.9  | 1.3                     | 0.8     | -3.1 | 0.1  | 3.1  |
| Almost impossible | 7.4                        | 11.0    | 2.2  | 3.8   | 1.6  | 26.8                                | 27.3    | 18.8  | 5.1   | -13.8 | 14.2                    | 21.5    | 2.0  | 3.2  | 1.2  |
| Very difficult    | 33.2                       | 47.0    | -4.3 | -1.6  | 2.7  | 36.6                                | 39.4    | -11.4 | -21.7 | -10.3 | 43.7                    | 43.0    | 3.0  | -3.1 | -6.1 |
| Very easy         | 4.1                        | 1.5     | 2.9  | 0.4   | -2.5 | 0.0                                 | 3.0     | 0.0   | 3.0   | 3.0   | 1.9                     | 0.8     | 0.8  | -0.9 | -1.7 |

Table 19. In your opinion, having a spot in a daycare is...

EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient.

P-value = 0.02 ("Very difficult" Immigrant participants in T1). P-value = 0.005 ("Quite easy" Immigrant participants in T2).

7.2.2.3. “If I need information about childcare options, I know how to find them.”  
(Table 20)

The baseline survey results highlight a significant lack of knowledge among immigrant participants regarding where to find information about childcare options if needed, as depicted in Table 4. Immigrant participants exhibit the highest rates of disagreement with the statement, with 34.0% indicating they do not know where to seek information about childcare options. In contrast, lower rates are observed among high-SES immigrant participants (17.0%) and French participants (18.7%). These findings align with existing literature (Carbuccia, 2022), suggesting that the difficulties extend beyond securing childcare and encompass the administrative hurdles preceding admission. Insights from the Parisian focus group (high-SES) further illuminate these challenges. Participants mentioned uncertainties about whom to turn to for assistance and what steps to take after facing rejection. If the struggle to find information is apparent among well-off immigrant mothers, who are assumed to possess greater social capital, it can be inferred that the challenge is even more pronounced for immigrant participants. This is evidenced by their highest disagreement rates (combining strongly disagree and quite disagree responses) with the question statement.

At the end-line level, we observe decreased disagreement rates for immigrant participants in both T1 and T2. However, the trend is contrary for high-SES immigrants and mixed for the French participants pool. Upon analyzing these trends, we do not identify a clear pattern in evolutions, as the changes seem unique to specific participant populations. Utilizing the Diff-in-Diff analysis, we generate coefficients representing the treatment effect on the outcome. We conduct a regression analysis to ascertain whether these coefficients are statistically significant (attributed to the treatment rather than random variation). The results among immigrant participants reveal statistical significance for both T1 and T2 for the answers “strongly agree” with p-values of 0.02 and 0.03, respectively (see Annex 3). Moreover, the regression results reveal another statistical significance for both T1 and T2 for the answers “quite agree” with p-values of 0.01 and 0.03, respectively. In other words, the Diff-in-Diff coefficients found for these answers are not results from random variations but are indicators of the treatment effect. Consequently, we conclude that the treatment impacts on immigrant participants in T1 are an 18.4% decrease in answering “strongly agree” and a 14.7% increase in answering “quite agree” to the statement “If I need information about childcare options, I know how to find them” relative to the control group. Similarly, the treatment impacts on immigrant participants in T2 are a decrease of 16.9% in strongly agreeing and an increase of 15.7% in quite agreeing to the same question relative to the control group. Thus, a causal relationship can be established between immigrant participants' treatment and improved information abilities.

Interestingly, once again, the treatment's impact is not found to be statistically significant for any coefficient for the high-SES immigrant group, highlighting the weak-to-null treatment effect on this population, which is nevertheless included in the larger “immigrant participants” group.

7.2.2.4. "If you decide to dedicate yourself to your child for one year or more, would it have a rather positive, negative, or no impact on your budget/income?" (Table 21)

Examining the financial aspect revealed contrasting perspectives. A notable divergence was reported among the various participant groups. Specifically, at the baseline stage, 71.3% of high-SES immigrant participants and 73.9% of French participants reported that dedicating a year or more to their child would yield a negative impact, compared to 55.4% of immigrant parents. This difference can be attributed to the financial implications of caring for a child for an extended period, often resulting in a reduction in income for families where both parents work. Immigrant participants, who are more likely to face inactivity and/or unemployment (OECD, 2006), exhibited a lower percentage of participants who indicated they would have to "sacrifice" income or a job compared to the other two groups.

Upon closer analysis of the end-line survey data, immigrant participants show an increase in negative perceptions across all groups and a rise in the "no impact" response for T1 and T2. However, these rates remain lower than those of high-SES and French counterparts. Furthermore, there is a decrease in the "don't know" response among all immigrant participants, indicating an improved understanding of the impact of caring for their child for a year or more on their budget/income. In contrast, high-SES immigrant participants exhibit an overall trend of negative perceptions or "no impact" across all subgroups, which mirrors the responses of French participants. Despite these observations, a discernible trend attributable to the treatment across groups cannot be identified. The evolutions seem to be unique to specific participant populations. Employing the Diff-in-Diff analysis allows us to generate coefficients representing the treatment effect on the outcome. We conduct a regression analysis to determine whether these coefficients are statistically significant (attributed to the treatment rather than random variation). Results of the regression analysis yield p-values greater than 0.05 for all coefficients. This indicates that we cannot confidently conclude that our Diff-in-Diff coefficients are indeed measurements of the treatment effect. Hence, it is impossible to confidently establish a causal relationship between the treatment and our outcomes concerning the opportunity cost on the budget/income for immigrant participants (and all participants) if they decide to dedicate themselves to their child for a year or more.

7.2.2.5. "The childcare option that would best meet your needs would be..." (Table 22)

The initial intensity of childcare needs among participant groups exhibited variations, notably with high-SES immigrants showing the highest full-time need for childcare arrangements (refer to Table 9), widening the gap between high-SES immigrants and their immigrant counterparts. Interestingly, high-SES immigrant participants maintained rates similar to those of French participants. At the baseline stage, responses were predominantly skewed towards the full-time childcare option, yet there was a broader distribution among immigrant participants compared to other groups. However, by the end-line stage, immigrant participants across the control, T1, and T2 subgroups align with the baseline trend observed among their high-SES counterparts

and French participants. In contrast, the end-line trend among French participants remains consistent with the baseline, albeit intensifying. Implementing the Diff-in-Diff analysis enables us to derive coefficients representing the treatment effect on the outcome. However, we conduct a regression analysis to ascertain whether these coefficients are statistically significant, meaning attributed to the treatment rather than random variation. The regression analysis results yield p-values greater than 0.05 for all coefficients. This suggests we cannot confidently conclude that our Diff-in-Diff coefficients definitively measure the treatment effect. Consequently, establishing a causal relationship between the treatment and our outcomes regarding the childcare option that would best meet immigrant participants' (and all participants') needs remains difficult.

7.2.2.6. "In your opinion, what would be best for your child, to be taken care of by you or your relatives..." (Table 23)

At the baseline level, approximately a quarter of immigrant participants preferred personally caring for their child(ren) or having relatives do so until their child(ren) reaches kindergarten age, typically around three years old. Insights from the Romainville (low-SES) focus group further illuminated this trend among participants, with one mother sharing her experience of already having two daughters, one of whom began attending daycare a few months before starting kindergarten. Surprisingly, a similar rate to immigrant participants' was observed among the high-SES counterparts, contrasting previous data indicating a significant portion planning to utilize formal childcare arrangements full-time. In contrast, French participants exhibited a lower inclination, with 18.9% preferring to care for their child(ren) themselves or with relatives until kindergarten entry.

Endline results reveal a general increase in the preference for caring for children until kindergarten entry, irrespective of immigration status, SES, or treatment received. The trend suggests a skew towards delaying entry into childcare arrangements until later years. While employing the Diff-in-Diff analysis enables us to derive coefficients representing the treatment effect on the outcome, conducting a regression analysis to assess their statistical significance yields p-values greater than 0.05 for all coefficients. This suggests we cannot confidently assert that our Diff-in-Diff coefficients truly measure the treatment effect. Consequently, it is challenging to establish a causal relationship between the treatment and our outcomes concerning the choice made by immigrant participants (and all participants) regarding what is best for their child.

The final analyses allow us to validate one out of the three remaining hypotheses:

The intervention has a more significant impact on parents from immigrant backgrounds, leading to improved knowledge and increased intentions to use formal childcare arrangements compared to the baseline level. Moreover, we could not identify a causal link between the treatment and outcome for the high-SES immigrant group, thus implying a rejection of our second hypothesis that anticipated a weak but existent causal link. Among immigrant

participants, the treatment effect was expected to be greater for T2 than for T1, given the differences in the received treatment. However, following the Diff-in-Diff analysis and regression, this hypothesis could not be validated either.

|                | Immigrant Participants (%) |         |      |      |      | High-SES Immigrant Participants (%) |         |       |       |       | French Participants (%) |         |      |      |      |
|----------------|----------------------------|---------|------|------|------|-------------------------------------|---------|-------|-------|-------|-------------------------|---------|------|------|------|
|                | Baseline                   | Endline | EΔ   | AΔ   | TΔ   | Baseline                            | Endline | EΔ    | AΔ    | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b> | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |       |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Positive       | 9.5                        | 14.4    | 0.0  | 0.0  |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 9.3                     | 10.5    | 0.0  | 0.0  |      |
| Negative       | 57.7                       | 60.2    | 0.0  | 0.0  |      | 76.0                                | 83.3    | 0.0   | 0.0   |       | 75.9                    | 73.2    | 0.0  | 0.0  |      |
| Don't know yet | 9.1                        | 3.3     | 0.0  | 0.0  |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 3.5                     | 1.0     | 0.0  | 0.0  |      |
| No impact      | 23.7                       | 22.1    | 0.0  | 0.0  |      | 24.0                                | 16.7    | 0.0   | 0.0   |       | 11.3                    | 15.3    | 0.0  | 0.0  |      |
| <b>T1</b>      | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |       |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Positive       | 12.3                       | 9.4     | 2.8  | -5.0 | -7.8 | 14.3                                | 15.8    | 14.3  | 15.8  | 1.5   | 11.5                    | 12.0    | 2.2  | 1.5  | -0.7 |
| Negative       | 56.0                       | 63.0    | -1.8 | 2.8  | 4.5  | 67.9                                | 68.4    | -8.1  | -14.9 | -6.8  | 71.3                    | 70.3    | -4.6 | -2.9 | 1.7  |
| Don't know yet | 7.9                        | 2.8     | -1.2 | -0.6 | 0.6  | 0.0                                 | 0.0     | 0.0   | 0.0   | 0.0   | 3.9                     | 3.8     | 0.4  | 2.7  | 2.3  |
| No impact      | 23.8                       | 24.9    | 0.1  | 2.8  | 2.7  | 17.9                                | 15.8    | -6.1  | -0.9  | 5.3   | 13.3                    | 13.9    | 2.0  | -1.3 | -3.3 |
| <b>T2</b>      | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |       |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Positive       | 11.4                       | 14.0    | 2.0  | -0.4 | 2.7  | 9.8                                 | 12.1    | 9.8   | 12.1  | 2.4   | 9.4                     | 9.1     | 0.1  | -1.5 | -1.5 |
| Negative       | 52.8                       | 54.5    | -4.9 | -5.7 | -3.5 | 70.7                                | 72.7    | -5.3  | -10.6 | -5.3  | 74.4                    | 76.2    | -1.4 | 3.0  | 4.4  |
| Don't know yet | 11.1                       | 3.0     | 2.0  | -0.3 | -1.7 | 14.6                                | 0.0     | 14.6  | 0.0   | -14.6 | 5.5                     | 1.1     | 2.0  | 0.1  | -1.9 |
| No impact      | 24.7                       | 28.5    | 1.0  | 6.4  | 2.6  | 4.9                                 | 15.2    | -19.1 | -1.5  | 17.6  | 10.7                    | 13.6    | -0.7 | -1.7 | -1.0 |

Table 21. If you decide to dedicate yourself to your child for 1 year or more, would it have a rather positive, negative, or no impact on your budget/income?

EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient. p-values > 0.05.

|                | Immigrant Participants (%) |         |      |      |      | High-SES Immigrant Participants (%) |         |      |       |       | French Participants (%) |         |      |      |      |
|----------------|----------------------------|---------|------|------|------|-------------------------------------|---------|------|-------|-------|-------------------------|---------|------|------|------|
|                | Baseline                   | Endline | EΔ   | AΔ   | TΔ   | Baseline                            | Endline | EΔ   | AΔ    | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b> | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |      |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Full-time      | 48.2                       | 65.2    | 0.0  | 0.0  |      | 68.0                                | 77.8    | 0.0  | 0.0   |       | 61.0                    | 78.0    | 0.0  | 0.0  |      |
| Occasionally   | 22.1                       | 25.4    | 0.0  | 0.0  |      | 16.0                                | 22.2    | 0.0  | 0.0   |       | 21.5                    | 16.3    | 0.0  | 0.0  |      |
| Never          | 5.5                        | 6.1     | 0.0  | 0.0  |      | 0.0                                 | 0.0     | 0.0  | 0.0   |       | 4.9                     | 5.1     | 0.0  | 0.0  |      |
| Not applicable | 17.4                       | 0.0     | 0.0  | 0.0  |      | 12.0                                | 0.0     | 0.0  | 0.0   |       | 9.3                     | 0.0     | 0.0  | 0.0  |      |
| Don't know yet | 6.7                        | 3.3     | 0.0  | 0.0  |      | 4.0                                 | 0.0     | 0.0  | 0.0   |       | 3.2                     | 0.7     | 0.0  | 0.0  |      |
| <b>T1</b>      | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |      |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Full-time      | 46.8                       | 64.1    | -1.4 | -1.1 | 0.3  | 67.9                                | 78.9    | -0.1 | 1.2   | 1.3   | 60.4                    | 72.2    | -0.6 | -5.8 | -5.2 |
| Occasionally   | 25.0                       | 26.0    | 2.9  | 0.6  | -2.3 | 10.7                                | 21.1    | -5.3 | -1.2  | 4.1   | 23.3                    | 19.9    | 1.8  | 3.7  | 1.9  |
| Never          | 7.1                        | 7.7     | 1.6  | 1.7  | 0.0  | 7.1                                 | 0.0     | 7.1  | 0.0   | -7.1  | 7.3                     | 5.3     | 2.3  | 0.2  | -2.1 |
| Not applicable | 14.7                       | 0.0     | -2.7 | 0.0  | 2.7  | 10.7                                | 0.0     | -1.3 | 0.0   | 1.3   | 7.9                     | 0.0     | -1.4 | 0.0  | 1.4  |
| Don't know yet | 6.3                        | 2.2     | -0.4 | -1.1 | -0.7 | 3.6                                 | 0.0     | -0.4 | 0.0   | 0.4   | 1.2                     | 2.6     | -2.0 | 2.0  | 3.9  |
| <b>T2</b>      | <b>100.0</b>               | 100.0   |      |      |      | <b>100.0</b>                        | 100.0   |      |       |       | <b>100.0</b>            | 100.0   |      |      |      |
| Full-time      | 45.4                       | 65.0    | -2.8 | -0.2 | 2.6  | 68.3                                | 81.8    | 0.3  | 4.0   | 3.7   | 66.0                    | 74.0    | 5.0  | -4.0 | -9.0 |
| Occasionally   | 25.5                       | 21.5    | 3.3  | -3.9 | -7.2 | 26.8                                | 12.1    | 10.8 | -10.1 | -20.9 | 17.8                    | 18.5    | -3.7 | 2.2  | 5.9  |
| Never          | 7.4                        | 9.5     | 1.8  | 3.4  | 1.6  | 0.0                                 | 6.1     | 0.0  | 6.1   | 6.1   | 5.8                     | 4.5     | 0.9  | -0.6 | -1.4 |
| Not applicable | 16.2                       | 0.0     | -1.2 | 0.0  | 1.2  | 4.9                                 | 0.0     | -7.1 | 0.0   | 7.1   | 7.8                     | 0.0     | -1.5 | 0.0  | 1.5  |
| Don't know yet | 5.5                        | 4.0     | -1.2 | 0.7  | 1.9  | 0.0                                 | 0.0     | -4.0 | 0.0   | 4.0   | 2.6                     | 3.0     | -0.6 | 2.3  | 2.9  |

Table 22. The childcare option that would best meet your needs would be... EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient, p-values > 0.05.

|                                 | Immigrant Participants (%) |         |      |      |      | High-SES Immigrant Participants (%) |         |       |       |       | French Participants (%) |         |      |      |      |
|---------------------------------|----------------------------|---------|------|------|------|-------------------------------------|---------|-------|-------|-------|-------------------------|---------|------|------|------|
|                                 | Baseline                   | Endline | EΔ   | AΔ   | TΔ   | Baseline                            | Endline | EΔ    | AΔ    | TΔ    | Baseline                | Endline | EΔ   | AΔ   | TΔ   |
| <b>Control</b>                  | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Until kindergarten entry        | 22.1                       | 38.7    | 0.0  | 0.0  |      | 28.0                                | 33.3    | 0.0   | 0.0   |       | 17.7                    | 27.8    | 0.0  | 0.0  |      |
| During the first year           | 21.7                       | 34.3    | 0.0  | 0.0  |      | 28.0                                | 27.8    | 0.0   | 0.0   |       | 20.6                    | 30.8    | 0.0  | 0.0  |      |
| During their first nine months  | 7.5                        | 8.3     | 0.0  | 0.0  |      | 8.0                                 | 16.7    | 0.0   | 0.0   |       | 9.3                     | 13.2    | 0.0  | 0.0  |      |
| During their first six months   | 18.6                       | 11.6    | 0.0  | 0.0  |      | 16.0                                | 16.7    | 0.0   | 0.0   |       | 29.4                    | 23.1    | 0.0  | 0.0  |      |
| During their first three months | 8.3                        | 4.4     | 0.0  | 0.0  |      | 0.0                                 | 5.6     | 0.0   | 0.0   |       | 9.0                     | 4.4     | 0.0  | 0.0  |      |
| Never                           | 0.0                        | 0.6     | 0.0  | 0.0  |      | 0.0                                 | 0.0     | 0.0   | 0.0   |       | 0.9                     | 0.3     | 0.0  | 0.0  |      |
| Don't know                      | 2.4                        | 2.2     | 0.0  | 0.0  |      | 4.0                                 | 0.0     | 0.0   | 0.0   |       | 1.7                     | 0.3     | 0.0  | 0.0  |      |
| Not applicable                  | 19.4                       | 0.0     | 0.0  | 0.0  |      | 16.0                                | 0.0     | 0.0   | 0.0   |       | 11.3                    | 0.0     | 0.0  | 0.0  |      |
| <b>T1</b>                       | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Until kindergarten entry        | 25.4                       | 47.0    | 3.3  | 8.3  | 5.0  | 17.9                                | 26.3    | -10.1 | -7.0  | 3.1   | 19.9                    | 27.1    | 2.2  | -0.7 | -2.9 |
| During the first year           | 17.5                       | 28.2    | -4.3 | -6.1 | -1.8 | 21.4                                | 26.3    | -6.6  | -1.5  | 5.1   | 20.8                    | 32.7    | 0.2  | 1.9  | 1.7  |
| During their first nine months  | 6.3                        | 6.1     | -1.2 | -2.2 | -1.0 | 3.6                                 | 10.5    | -4.4  | -6.1  | -1.7  | 10.3                    | 12.4    | 1.0  | -0.8 | -1.8 |
| During their first six months   | 16.7                       | 11.0    | -1.9 | -0.6 | 1.4  | 28.6                                | 26.3    | 12.6  | 9.6   | -2.9  | 28.4                    | 20.3    | -1.0 | -2.8 | -1.8 |
| During their first three months | 15.1                       | 6.1     | 6.8  | 1.7  | -5.1 | 14.3                                | 10.5    | 14.3  | 5.0   | -9.3  | 8.5                     | 3.8     | -0.6 | -0.6 | -0.1 |
| Never                           | 0.4                        | 0.6     | 0.4  | 0.0  | -0.4 | 0.0                                 | 0.0     | 0.0   | 0.0   | 0.0   | 0.9                     | 2.3     | 0.0  | 1.9  | 1.9  |
| Don't know                      | 1.2                        | 1.1     | -1.2 | -1.1 | 0.1  | 0.0                                 | 0.0     | -4.0  | 0.0   | 4.0   | 2.1                     | 1.5     | 0.4  | 1.2  | 0.8  |
| Not applicable                  | 17.5                       | 0.0     | -1.9 | 0.0  | 1.9  | 14.3                                | 0.0     | -1.7  | 0.0   | 1.7   | 9.1                     | 0.0     | -2.3 | 0.0  | 2.3  |
| <b>T2</b>                       | 100.0                      | 100.0   |      |      |      | 100.0                               | 100.0   |       |       |       | 100.0                   | 100.0   |      |      |      |
| Until kindergarten entry        | 26.9                       | 42.0    | 4.8  | -5.0 | -1.5 | 26.8                                | 36.4    | -1.2  | 10.0  | 4.2   | 19.1                    | 24.5    | 1.4  | -2.5 | -4.6 |
| During the first year           | 20.3                       | 30.5    | -1.4 | 2.3  | -2.3 | 19.5                                | 33.3    | -8.5  | 7.0   | 14.0  | 20.7                    | 29.1    | 0.1  | -3.7 | -1.9 |
| During their first nine months  | 5.5                        | 8.5     | -2.0 | 2.4  | 2.2  | 14.6                                | 12.1    | 6.6   | 1.6   | -11.2 | 10.4                    | 13.2    | 1.1  | 0.8  | -1.1 |
| During their first six months   | 18.5                       | 10.0    | -0.1 | -1.0 | -1.5 | 24.4                                | 15.2    | 8.4   | -11.2 | -9.9  | 29.8                    | 23.4    | 0.4  | 3.1  | -0.1 |
| During their first three months | 5.9                        | 3.5     | -2.4 | -2.6 | 1.5  | 2.4                                 | 3.0     | 2.4   | -7.5  | -5.0  | 10.7                    | 8.3     | 1.7  | 4.5  | 2.2  |
| Never                           | 0.0                        | 2.0     | 0.0  | 1.4  | 1.4  | 0.0                                 | 0.0     | 0.0   | 0.0   | 0.0   | 0.0                     | 0.8     | -0.9 | -1.5 | 1.3  |
| Don't know                      | 2.6                        | 3.5     | 0.2  | 2.4  | 1.1  | 2.4                                 | 0.0     | -1.6  | 0.0   | 1.6   | 0.6                     | 0.8     | -1.1 | -0.7 | 1.5  |
| Not applicable                  | 20.3                       | 0.0     | 0.9  | 0.0  | -0.9 | 9.8                                 | 0.0     | -6.2  | 0.0   | 6.2   | 8.7                     | 0.0     | -2.6 | 0.0  | 2.6  |

Table 23. In your opinion, what would be best for your child, to be taken care of by you or your relatives...

EΔ = Expected difference, AΔ = Measured difference, TΔ = Diff-in-Diff coefficient, p-values > 0.05

## **8. Limits and Further Research Possibilities**

In considering the methodology of our study, several challenges and limitations emerge that should be considered when interpreting our results. One notable challenge was the few survey questions and answers variations between the baseline and end-line levels. This can complicate comparability, especially when employing the Diff-in-Diff methodology to establish or reject causal relationships between variables. It was observed that our study primarily focused on estimating correlations rather than definitive causal relationships, partly due to the intervention not being specifically targeted at immigrant participants within its design framework. Additionally, there is a potential for post-treatment selection bias in our analysis, as participants who did not drop out of the study may have been more interested in childcare, leading to a potential overestimation of the treatment effect. Holland's (1986) insight into the fundamental problem of evaluation - the inability to directly observe what would have happened to the treated population without the policy - further underlines the complexity of our estimation process.

The focus group discussions provided valuable insights but also presented limitations that must be considered. Focus groups, while insightful, may not always be suitable for discussing sensitive or intimate topics due to concerns about confidentiality and anonymity, potentially limiting the depth of understanding and leading to very general conversations. Challenges arose for participants with physical and communication access needs, such as a Mexican participant who occasionally needed translation services. Some mothers had to come with their children to the focus groups, potentially affecting the quality of the discussion. Moreover, there is a risk that discussions were dominated by vocal individuals, which might have skewed the perspectives shared. Additionally, status differences between participants and researchers (interviewers) might have influenced discussions and the perspectives expressed. The limited number of focus groups (2) also implies representation issues and reduced potential of generalizability of the study. Moreover, the absence of fathers/partners in the research is a notable limitation, as their perspectives could have provided valuable insights into childcare decision-making processes and potential barriers. It is also crucial to consider the generalizability of our study. The choice of our study area (Île-de-France), a very urban and diverse region, may not represent childcare access, issues, and perceptions across all of French territory. Thus, caution should be exercised when generalizing the findings to the country.

This study uncovered aspects that warrant further exploration. For instance, the middle-SES class was not thoroughly explored in our research, and future studies could delve into differences between low-SES French and low-SES immigrant groups to understand whether immigration status or SES represents a more substantial barrier to accessing formal childcare. Exploring variations within immigrant groups, such as those from different continents or regions, could provide more nuanced insights into cultural differences and perceptions regarding childcare. Notably, further investigation into the high-SES immigrant group is warranted to understand their unique challenges and perceptions, especially given the weak-to-null treatment effect observed in this study. Our study's definition of immigration, primarily targeting non-European immigration from developing nations, has several limitations. Indeed,



immigration status isn't solely about being born outside the country; for example, one can be born a French citizen abroad due to parental expatriation. Hence, it is possible that some French participants were present in our immigrant pool. In light of these considerations, several avenues for further research emerge. These research directions have the potential to provide valuable insights into the complex factors influencing childcare access and perceptions, particularly among immigrant populations.

## **9. Conclusion: Policy Recommendations**

### **9.1. Policy Recommendation 1: Digital Information Platform for Childcare Access**

Based on feedback from focus groups comprising mothers from various socioeconomic backgrounds and immigration statuses, the first recommendation stems from a bottom-up approach, prioritizing beneficiaries' insights into their needs over policymakers' perspectives. Drawing from the feedback received during these focus groups, which included reflections on the program and ideas for future improvements, the proposal suggests the development of a digital platform or application to centralize information about formal childcare arrangements. This platform would address accessibility, allowing information to be available at all times and offering practical solutions to seeking information. Moreover, an official platform would help alleviate trust issues identified among participants, particularly in the Romainville FG, and address complications such as private text messages being marked as spam. Participants from the Paris FG preferred a website or application format, saying it emphasizes easy access to information. This recommendation underscores the significant barrier posed by the lack of access to information across socioeconomic categories and immigration statuses, encompassing knowledge about procedures, subsidies, and childcare arrangements. The proposed digital tool could utilize chatbot functionality, employing AI technology to provide tailored responses to specific inquiries akin to the individual administrative support offered in the program. Furthermore, insights from the Romainville FG suggest incorporating visual and video-based interactions and occasional in-person meetings to accommodate mothers who may have difficulty reading or writing. Additionally, the translation capabilities of a digital platform would facilitate outreach to individuals facing language barriers, as evidenced by the positive experience of a Mexican participant who appreciated accessing content in a language she understood well. However, it is essential to acknowledge that digitalization may entail the exclusion of disadvantaged populations not having access to the internet (or not digitally literate) as well as reduced human interactions, a concern raised by an immigrant participant from the Romainville FG, who emphasized the value of one-on-one interactions, particularly for those less proficient in the French language. On the other hand, the Mexican participant in the Paris focus group expressed the preference for a dematerialized system, highlighting the diversity of preferences and the importance of considering individual needs when implementing digital solutions.

## 9.2. Policy Recommendation 2: Sensitization Campaign During Pregnancy

Building on the program, which aimed to support parents in alleviating barriers to access to formal childcare and support their decision-making process, a second policy recommendation proposes a sensitization campaign targeting expectant mothers during their pregnancy. This campaign would leverage mandatory appointments at gynecologists or hospitals as crucial touchpoints to raise awareness about the diverse array of formal childcare arrangements available.

The baseline survey highlighted disparities in awareness levels of formal childcare arrangements among different groups. Familiar options like daycares, childminders, or nannies are well-known and most used nationally (ONAPE, 2018). However, formal childcare options that are less familiar to French participants are similarly less known among immigrants (see Figure 1). This suggests that information about the diverse array of childcare arrangements fails to reach all population segments, irrespective of immigration status or socioeconomic standing, as confirmed by both focus groups. Increasing knowledge of the variety of childcare arrangements and encouraging diversification in applications could positively impact parents' access to formal childcare as well as their employment. Not all parents know options beyond daycare facilities, which often have long waiting lists. This lack of knowledge leads some parents to put their professional lives on hold due to limited childcare options. Women are particularly affected, often being the ones to sacrifice their jobs when suitable childcare is not available. Sensitizing expectant mothers to the diversity of childcare arrangements fosters a broader application and usage of these facilities and has direct implications for employment and gender equality. By ensuring that all parents, regardless of background, are informed about various formal childcare options, the campaign can contribute to a more equal distribution of caregiving responsibilities and facilitate greater workforce participation among women.

Timing is crucial, as our research has shown that obtaining a spot in childcare arrangements is often a race against time. High-SES mothers from the Parisian FG mentioned starting the application process as early as three months into their pregnancy. Some even mentioned considering planning their pregnancies around childcare admission schedules. Conversely, in the Romainville FG (low-SES), immigrant participants tended to consider formal childcare arrangements much later. This campaign would aim to close the knowledge gap and empower all parents with the information they need to make informed decisions about childcare. Reaching expectant mothers early in their pregnancy provides more time for planning and application, increasing the likelihood of securing desired childcare arrangements and reducing the need for parents, particularly women, to interrupt their careers due to childcare-related challenges.

In conclusion, a sensitization campaign during pregnancy can significantly improve access to formal childcare arrangements and promote gender equality in the workforce across all SES categories and immigrant status.

By ensuring that all parents know the diverse options available and are empowered to make informed choices, these policy recommendations aim to tackle behavioral barriers and create a more equitable childcare landscape for families, ultimately benefiting children, parents, and society.

## 10. Bibliography

Archambault, J., Côté, D., & Raynault, M. F. (2020). Early childhood education and care access for children from disadvantaged backgrounds: Using a framework to guide intervention. *Early Childhood Education Journal*, 48, 345-352.

Beauchemin, C., Hamel, C., & Simon, P. (2010). Trajectoires et origines: enquête sur la diversité des populations en France (No. 168).

Berger, L. M., Panico, L., & Solaz, A. (2021). The impact of center-based childcare attendance on early child development: Evidence from the French Elfe cohort. *Demography*, 58(2), 419-450.

Bouysse V., Claus P. et Szymankiewicz C. (2011), « L'école maternelle », Rapport à monsieur le ministre de l'Éducation nationale, de la Jeunesse et de la Vie associative, 2011-108.

Carbuccia, L. (2021). Les barrières d'accès aux modes d'accueil formels chez les populations défavorisées: une approche comportementale (Doctoral dissertation, Master thesis).

Carbuccia, L., Barone, C., Borst, G., Greulich, A., Panico, L., & Tô, M. (2020). Revue de littérature sur les politiques d'accompagnement au développement des capacités des jeunes enfants.

Carbuccia, L., Thouzeau, V., Barone, C., & Chevallier, C. (2022). Unequal access to early childcare: What role do demand-side factors play? A PRISMA systematic review. *LIEPP Working Paper*, (138), 29.

Cartier, M., Collet, A., Czerny, E., Gilbert, P., Lechien, M.-H., & Monchatre, S. (2017). Pourquoi les parents préfèrent-ils la crèche ? Les représentations hiérarchisées des modes de garde professionnels. *Revue française des affaires sociales*, 1(2), 247. <https://doi.org/10.3917/rfas.172.0247>

Collombet, C. (2018). Les inégalités sociales d'accès aux modes d'accueil des jeunes enfants. Une comparaison européenne. *Revue des politiques sociales et familiales*, 127(1), 71-82. <https://doi.org/10.3406/caf.2018.3289>

Commission 1000 jours. (2020). Les 1000 premiers jours Là où tout commence. Ministère de la Santé et des Solidarité. <https://solidarites-sante.gouv.fr/IMG/pdf/rapport-1000-premiers-jours.pdf>

Costes, L., & Mounir, H. (2019). La petite enfance issue de l'immigration à l'épreuve du centre maternel: la «fabrique de la relation mère-enfant». *Migrations Société*, (4), 55-68.

CREDOC. (2023). Quels sont les besoins des familles en situation de pauvreté en matière d'accueil du jeune enfant et d'aide à la parentalité ? France Stratégie.

Cusset, P. Y. (2022). Pauvreté et immigration. *Constructif*, (2), 36-41.

Dequière, A. F., & Gastaut, Y. (2019). La petite enfance, enjeu majeur des questions migratoires. *Migrations Société*, (4), 13-24.

Dumcius R. (2014), « Study on the Effective Use of Early Childhood Education and Care in Preventing Early School Leaving », European Commission, No EAC/17/2012.

Eremenko, T., Thierry, X., Moguérou, L. & Prigent, R. (2017). Organiser la garde des enfants quand on est mère seule : une spécificité des mères immigrées ?. *Revue française des affaires sociales*, , 207-228. <https://doi.org/10.3917/rfas.172.0207>

Fagnani, J. (2001). La politique d'accueil de la petite enfance en France: ombres et lumières. *Travail genre et sociétés*, (2), 105-119.

Garbarino, S., & Holland, J. (2009). Quantitative and qualitative methods in impact evaluation and measuring results.

Hermes, H., Krauß, M., Lergetporer, P., Peter, F., & Wiederhold, S. (2022). Early child care and labor supply of lower-SES mothers: A randomized controlled trial.

Hermes, H., Lergetporer, P., Peter, F., & Wiederhold, S. (2021). Behavioral barriers and the socioeconomic gap in child care enrollment.

Hugret, M., & Manço, A. (2022). L'accueil d'enfants de parents immigrés: effets sur l'accès à l'emploi et l'égalité hommes/femmes.

INSEE. (2022). L'essentiel sur... Les immigrés et les étrangers | Insee. <https://www.insee.fr/fr/statistiques/3633212>

Jamet, S. (2007). Lutter contre la pauvreté et l'exclusion sociale en France.

Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed-methods research: a research paradigm whose time has come. *Educational Researcher*, 33(7), 14-26

Kaga Y., Benett J. et Moss P. (2010), *Caring and Learning Together A Cross-National Study on the Integration of Early Childhood Care and Education within Education*, UNESCO, Paris, [en ligne] <http://unesdoc.unesco.org/images/0018/001878/187818E.pdf>.

Kamerman S. (2006), « A Global History of Early Childhood Education and Care », Background Paper prepared for the Education for All Global Monitoring Report 2007, UNESCO.

La Berge, A. F. (1991). Medicalization and Moralization: The Creches of Nineteenth-Century Paris. *Journal of Social History*, 25(1), 65–87. <http://www.jstor.org/stable/3788504>

Le Bouteillec, N., Kandil, L., & Solaz, A. (2014). L'accueil en crèche en France : Quels enfants y ont accès ? *Population & Sociétés*, N° 514(8), 1. <https://doi.org/10.3917/popsoc.514.0001>

Leseman, D. P. (2002). Early childhood education and care for children from low-income or minority. OECD Publishing, 53.

Lillo, N., Blanc-Chaléard, M. C., Blum Le Coat, J. Y., Vicente, M. J., Gingel, A., Gonzalez Bernaldo, P., ... & Zaidman, S. (2009). Île-de-France. Histoire et mémoire des immigrations depuis 1789. *Hommes & migrations*. *Revue française de référence sur les dynamiques migratoires*, (1278), 18-31.

Lombardo, P., & Pujol, J. (2011). Le niveau de vie des descendants d'immigrés. Les revenus et le patrimoine des ménages, 73-81.

Louart, S., Baldé, H., Robert, E., & Ridde, V. (2023). Évaluation Réaliste. LIEPP Methods Brief/Fiches méthodologiques du LIEPP, 6-pages.

Manzano, A. (2023). Les focus groups. LIEPP Methods Brief/Fiches méthodologiques du LIEPP, 6-pages.

Martinez, S. (2011). Impact evaluation in practice. World Bank Publications.

Merla, L., & Degavre, F. (2016). Le concept de défamilialisation à l'épreuve du care transnational. L'exclusion des travailleuses migrantes domestiques des politiques de care 1. Informations sociales, (3), 50-60.

Milza, P. (1985). Un siècle d'immigration étrangère en France. Vingtième Siècle. Revue d'histoire, 7, 3–17. <https://doi.org/10.2307/3769930>

Mollo-Bouvier, S. (1991). Les femmes immigrées et les institutions de la petite enfance. Résistances et motivations. Diversité, 84(1), 101-118.

Noiriel, G., & Claus, P. (2020). Cinquante ans d'histoire de l'immigration en France. Administration et Éducation, (2), 11-18.

OCDE (2007), Bébés et Employeurs : une synthèse, OECD Publishing, Paris.

OECD. (2017). Starting strong 2017 : Key OECD indicators on early childhood education and care. OECD Publishing.

OECD. (2018). Engaging Young Children: Lessons from Research about Quality in Early Childhood Education and Care. OECD. <https://doi.org/10.1787/9789264085145-en>

ONAPE. (2021). L'accueil du jeune enfant en 2020. ONAPE.

Pin, C. (2023). L'entretien semi-directif. LIEPP Methods Brief/Fiches méthodologiques du LIEPP.

Pluye, P. (2023). Mixed methods. LIEPP Methods Brief/Fiches méthodologiques du LIEPP.

Premiers Pas. (2021). Synthèse « Premiers pas. Développement du jeune enfant et politique publique ». Cnaf, HCFEA, France Stratégie.

Reynolds, S. (1990). Who wanted the crèches? Working mothers and the birth-rate in France 1900–1950. Continuity and Change, 5(2), 173-197.

Sear, R. (2021). The male breadwinner nuclear family is not the 'traditional' human family, and promotion of this myth may have adverse health consequences. Philosophical Transactions of the Royal Society. <https://doi.org/doi:10.1098/rstb.2020-0020>

Singly F. et Wisnia-Weil V. (2015), « Pour une stratégie nationale unifiée de l'enfance et de l'adolescence », France Stratégie.

Terrell, S. (2011). Mixed-methods research methodologies. *The Qualitative Report*, 17(1), 254-280. Retrieved from <http://www.nova.edu/ssss/QR/QR17-1/terrell.pdf>

Thévenon, O. (2016). L'accueil de la petite enfance en France et dans les pays de l'OCDE : une politique d'investissement social ? *Revue française des affaires sociales*, , 163-188. <https://doi.org/10.3917/rfas.161.0163>

Unver, Ö., Bircan, T., & Nicaise, I. (2018). Perceived accessibility of childcare in Europe: Acrosscountry multilevel study. *International Journal of Child Care and Education Policy*, 12(1), 5. <https://doi.org/10.1186/s40723-018-0044-3>

Vandenbroeck, M., & Lazzari, A. (2014). Accessibility of early childhood education and care : A state of affairs. *European Early Childhood Education Research Journal*, 22(3), 327-335. <https://doi.org/10.1080/1350293X.2014.912895>

Vandenbroeck. (2013). Accessibility of Early Childhood Education and Care (ECEC) for children from ethnic minority and low-income families. *Transatlantic Forum for Inclusive Early Years*.

Venetoklis, T. (2002). *Public policy evaluation: Introduction to quantitative methodologies*.

Villaume S. et Legendre E. (2014), « Modes de garde et d'accueil des jeunes enfants en 2013 », *Études et Résultats*, no 896, DREES.

## 11. Annex

### 11.1. Annex 1: Selected Baseline Survey Questions For A Quantitative Analysis

#### Socio-demography

- Where were you born?
- We aim for a diverse sample, so what is your level of education?
- Currently... (do you have a job?)
- On average each month, in which income bracket does the net income of your household fall? This includes all income of the people living with you after taxes and social contributions are deducted. Also, consider the social benefits or assistance you receive...

#### Knowledge

- Could you tell me the types of childcare options you are aware of?
- In your opinion, how much do you think it would cost per month for a full-time spot in a municipal daycare for your child?
- Do you think the price changes based on how much parents earn?
- Among the mothers you know, what proportion has already used or is using childcare?
- Children who have been in childcare before age 3 have better development in kindergarten than others.

#### Perceived Accessibility

- In your opinion, having a spot in a daycare will/would be?
- Do you think using childcare would be/manageable in daily practice in terms of schedules?
- If I need information about childcare, I know how to find it.
- I know people who can help me with administrative procedures if I need them (including yourself if not needed).
- If you decide to dedicate yourself to your child for 1 year or more, do you think it would have a rather positive, negative, or no impact on your well-being?
- And on your budget/income?
- And on your career/ease of finding a job?

#### Intentions

- Ideally, would you like to use childcare before your child starts kindergarten, even occasionally?
  - Which one?
- Are there family members, friends, or neighbors who can look after your child if needed?
- For you, the childcare that would best meet your needs would be...



- And in your opinion, what would be best for your child would be to be cared for by you or your close relatives...

## 11.2. Annex 2: Selected End-line Survey Questions For A Quantitative Analysis

### Socio-demography

- Where were you born?
- We aim to have a diverse sample, so what is your level of education?
- Currently, what is your work situation / Mrs.'s work situation? Follow-up: Do you work?
- The videos will be available in French, Arabic, and English. Which language do you prefer among these three?
- On average each month, in which income bracket does the net income of your household fall? This includes the total income of the people living with you, after taxes and social contributions. Also, consider any social benefits or aids you receive...

### Knowledge

- Could you please tell me all the types of childcare arrangements you are aware of?
- Do you think the price of childcare changes based on how much parents earn?
- Children who have been in childcare before the age of 3 have better development in kindergarten than others
- How much does / would it cost you for a full-time place in a municipal childcare center (in your opinion) per month (before tax deductions)?

### Perceived Accessibility

- In your opinion, obtaining a spot in a childcare center is...
- Do you think using childcare would be manageable in terms of daily schedules?
- If you decide to dedicate yourself to your child for 1 year or more, would it have a rather positive, negative, or no impact on your well-being?
- And on your budget/income?
- And on your career/the ease of finding work?
- If I need information about childcare options, I know how to find it

### Intentions and Use of Childcare Arrangements

- Have you (ever) inquired or conducted research (visiting PMI, RAM, municipal associations, etc.) for childcare for your child?
- Have you applied or registered for childcare options for your babies?
- How many applications have you sent for childcare arrangements?
- Do you have a spot in a childcare facility for your babies?
- And this childcare, how many hours per week is it on a normal week?
- Would you have preferred to use a different childcare option for your babies?
- Why didn't you use your preferred childcare option?

- Ideally, would you like to use a childcare option before your child enters kindergarten at 3 years old?
- You, in reality, the childcare option that would best suit your needs would be...
- If you had the choice, ideally, what would be best for your child would be to be cared for by you or your relatives...

#### Norms and Beliefs

- Among the mothers you know, what proportion has already used or is using a childcare option?
- Think of the 10 people closest to you, out of 10, how many think that putting a child in childcare can be bad for them?
- Do you agree or disagree with the following statement: "When a mother works to earn money, the children suffer"?
- Do you agree or disagree with the following statement: "Having a job is good, but what most women really want is a home and children"?

### 11.3. Annex 3: Regression Analyses Results

#### 11.3.1. "In your opinion, having a spot in daycare is..."

| IMMIGRANT PARTICIPANTS "ACCESSEASY" SUMMARY OUTPUT |                     |                       |               |                 |                       |                  |                    |                    |
|--|---------------------|-----------------------|---------------|-----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i>                       |                     |                       |               |                 |                       |                  |                    |                    |
| Multiple R   | 0.116851508         |                       |               |                 |                       |                  |                    |                    |
| R Square   | 0.013654275         |                       |               |                 |                       |                  |                    |                    |
| Adjusted R Square                                  | 0.01012531          |                       |               |                 |                       |                  |                    |                    |
| Standard Error                                     | 0.267504899         |                       |               |                 |                       |                  |                    |                    |
| Observations                                       | 562                 |                       |               |                 |                       |                  |                    |                    |
| <i>ANOVA</i>                                       |                     |                       |               |                 |                       |                  |                    |                    |
|  | <i>df</i>           | <i>SS</i>             | <i>MS</i>     | <i>F</i>        | <i>Significance F</i> |                  |                    |                    |
| Regression   | 2                   | 0.553751303           | 0.276876      | 3.869201        | 0.021436412           |                  |                    |                    |
| Residual   | 559                 | 40.00140884           | 0.071559      |                 |                       |                  |                    |                    |
| Total  | 561                 | 40.55516014           |               |                 |                       |                  |                    |                    |
|  | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i>  | <i>Lower 95%</i>      | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept  | 0.038674033         | 0.019883483           | 1.945033      | 0.052272        | -0.000381437          | 0.077729504      | -0.000381437       | 0.077729504        |
| T1   | 0.038674033         | 0.028119491           | 1.375346      | 0.169575        | -0.016558743          | 0.093906809      | -0.016558743       | 0.093906809        |
| T2   | 0.076325967         | 0.027443528           | 2.781201      | <b>0.005599</b> | 0.022420928           | 0.130231006      | 0.022420928        | 0.130231006        |

| IMMIGRANT PARTICIPANTS "ACCESS VERY DIFFICULT" SUMMARY OUTPUT |                     |                       |               |                 |                       |                  |                    |                    |
|---|---------------------|-----------------------|---------------|-----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i>                                  |                     |                       |               |                 |                       |                  |                    |                    |
| Multiple R  | 0.102027075         |                       |               |                 |                       |                  |                    |                    |
| R Square  | 0.010409524         |                       |               |                 |                       |                  |                    |                    |
| Adjusted R Square   | 0.00686895          |                       |               |                 |                       |                  |                    |                    |
| Standard Error  | 0.495479321         |                       |               |                 |                       |                  |                    |                    |
| Observations  | 562                 |                       |               |                 |                       |                  |                    |                    |
| <i>ANOVA</i>  |                     |                       |               |                 |                       |                  |                    |                    |
|   | <i>df</i>           | <i>SS</i>             | <i>MS</i>     | <i>F</i>        | <i>Significance F</i> |                  |                    |                    |
| Regression  | 2                   | 1.443571302           | 0.721786      | 2.940067        | 0.053680207           |                  |                    |                    |
| Residual  | 559                 | 137.2343646           | 0.2455        |                 |                       |                  |                    |                    |
| Total   | 561                 | 138.6779359           |               |                 |                       |                  |                    |                    |
|   | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i>  | <i>Lower 95%</i>      | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept   | 0.486187845         | 0.036828688           | 13.20133      | 7.89E-35        | 0.413848317           | 0.558527373      | 0.413848317        | 0.558527373        |
| T1  | -0.116022099        | 0.05208363            | -2.22761      | <b>0.026304</b> | -0.218325641          | -0.013718558     | -0.218325641       | -0.013718558       |
| T2  | -0.016187845        | 0.050831595           | -0.31846      | 0.750255        | -0.116032118          | 0.083656428      | -0.116032118       | 0.083656428        |

11.3.2. “If I need information about childcare options, I know how to find them”

| IMMIGRANT PARTICIPANTS ACCESSINFO "STRONGLY AGREE" SUMMARY OUTPUT |                     |                       |               |                 |                       |                  |                    |                    |
|---|---------------------|-----------------------|---------------|-----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i>                                      |                     |                       |               |                 |                       |                  |                    |                    |
| Multiple R  | 0.105082            |                       |               |                 |                       |                  |                    |                    |
| R Square  | 0.011042            |                       |               |                 |                       |                  |                    |                    |
| Adjusted R Square   | 0.007504            |                       |               |                 |                       |                  |                    |                    |
| Standard Error  | 0.493487            |                       |               |                 |                       |                  |                    |                    |
| Observations  | 562                 |                       |               |                 |                       |                  |                    |                    |
| <i>ANOVA</i>  |                     |                       |               |                 |                       |                  |                    |                    |
|   | <i>df</i>           | <i>SS</i>             | <i>MS</i>     | <i>F</i>        | <i>Significance F</i> |                  |                    |                    |
| Regression  | 2                   | 1.519986237           | 0.759993      | 3.120742        | 0.0448941             |                  |                    |                    |
| Residual  | 559                 | 136.1330387           | 0.24353       |                 |                       |                  |                    |                    |
| Total   | 561                 | 137.6530249           |               |                 |                       |                  |                    |                    |
|   | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i>  | <i>Lower 95%</i>      | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept   | 0.646409            | 0.036680612           | 17.62263      | 1.31E-55        | 0.5743602             | 0.7184575        | 0.5743602          | 0.7184575          |
| T1  | -0.11602            | 0.05187422            | -2.2366       | <b>0.025706</b> | -0.2179143            | -0.01413         | -0.2179143         | -0.0141299         |
| T2  | -0.10641            | 0.050627219           | -2.10181      | <b>0.036017</b> | -0.2058517            | -0.006966        | -0.2058517         | -0.006966          |

| IMMIGRANT PARTICIPANTS ACCESS INFO "QUITE AGREE" SUMMARY OUTPUT |                     |                       |               |                 |                       |                  |                    |                    |
|---|---------------------|-----------------------|---------------|-----------------|-----------------------|------------------|--------------------|--------------------|
| <i>Regression Statistics</i>                                    |                     |                       |               |                 |                       |                  |                    |                    |
| Multiple R  | 0.110569            |                       |               |                 |                       |                  |                    |                    |
| R Square  | 0.012226            |                       |               |                 |                       |                  |                    |                    |
| Adjusted R Square   | 0.008691            |                       |               |                 |                       |                  |                    |                    |
| Standard Error  | 0.41324             |                       |               |                 |                       |                  |                    |                    |
| Observations  | 562                 |                       |               |                 |                       |                  |                    |                    |
| <i>ANOVA</i>  |                     |                       |               |                 |                       |                  |                    |                    |
|   | <i>df</i>           | <i>SS</i>             | <i>MS</i>     | <i>F</i>        | <i>Significance F</i> |                  |                    |                    |
| Regression  | 2                   | 1.181480997           | 0.59074       | 3.459324        | 0.0321259             |                  |                    |                    |
| Residual  | 559                 | 95.4590884            | 0.170768      |                 |                       |                  |                    |                    |
| Total   | 561                 | 96.6405694            |               |                 |                       |                  |                    |                    |
|   | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i>  | <i>Lower 95%</i>      | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept   | 0.154696            | 0.030715914           | 5.036351      | 6.41E-07        | 0.0943634             | 0.215029         | 0.09436342         | 0.215028848        |
| T1  | 0.104972            | 0.043438863           | 2.416554      | <b>0.015987</b> | 0.019649              | 0.190296         | 0.01964903         | 0.19029572         |
| T2  | 0.090304            | 0.042394639           | 2.130078      | <b>0.033601</b> | 0.0070316             | 0.173576         | 0.00703161         | 0.17357613         |

## Public Policy Master's Thesis Series

---

This series presents the Master's theses in Public Policy and in European Affairs of the Sciences Po School of Public Affairs. It aims to promote high-standard research master's theses, relying on interdisciplinary analyses and leading to evidence-based policy recommendations.

### **Breaking Barriers:** Exploring the Impact of a Support Program on Access to Formal Childcare Arrangements for Immigrants - A Mixed-Method Evaluation

Kiara, Tegbe Savignac

#### Abstract

This research aimed to evaluate the impact of a support program on behavioral barriers encountered by immigrant parents accessing formal childcare in France. Employing a mixed-method approach, the study combined quantitative analysis of baseline and end-line surveys with qualitative insights from focus groups. Quantitative findings revealed significant initial barriers, particularly among immigrant participants. Causal relationships were established to improve perceived accessibility to childcare arrangements and information-seeking abilities. Qualitative data provided further depth, offering space for feedback and reflection on future interventions to address behavioral barriers. Recommendations include developing a digital platform for centralized childcare information and implementing sensitization programs during pregnancy. The study highlights the importance of addressing both structural and behavioral barriers to promote equal access to formal childcare, contributing to evidence-based policymaking for children and immigrant parents' welfare.

#### Key words

Early Childhood Education and Care, Childcare Arrangements, Immigration, Behavioral Barriers, Mixed-Method Evaluation, Randomized Control Trial