



Finding the First Step: Clarity, Navigation, and Immigrant Inclusion in City-Connected Web Guidance for Starting a Business in Philadelphia, USA

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ABSTRACT

Prospective entrepreneurs often begin with a practical question: What should I do first? For immigrants who are also learning a new regulatory system or working in a second language, the answer may be harder to locate. This study examines how Philadelphia's City-connected web guidance presents that first step. A directed content analysis examined 14 public webpages accessed between July 3 and September 5, 2026: seven City of Philadelphia pages and seven pages from providers reached through the City's Business Technical Assistance Program network. A separate audit tested all nine provider links listed by the City; all pages and links were rechecked on September 5. Using the proposed First-Step Accessibility framework, the study coded orientation, activation, navigation, inclusion, and coverage of regulatory and business-readiness topics. All 14 pages contained an action route, and 10 prioritized a concrete immediate action. Only five presented two or more ordered actions, five stated eligibility or prerequisites, four disclosed cost or free status, and three supplied timing information. Nine pages provided multilingual access, but only four tied language assistance directly to business support. One page explicitly named immigrant entrepreneurs, and none provided documentation-sensitive guidance or referral. Seven of nine provider links led to relevant information; one redirected to a general City page and one to unrelated content. The sampled system therefore contained substantial but distributed capacity. Its pages offered multiple entry points, but the corpus rarely connected regulatory guidance, planning, finance, and operational support into one sequenced pathway. These findings describe the sampled webpages and do not establish how users understand or experience them.

Keywords: immigrant entrepreneurship, administrative burden, business support, language access, Philadelphia

INTRODUCTION

Most people who want to start a business do not begin with a full checklist. Usually, they start by asking a practical question: What should I do first? In Philadelphia, the answer may involve choosing a legal structure, obtaining federal and City identifiers, checking a location, applying for licenses, preparing a business plan, finding capital, or speaking with an adviser. Each action may be relevant. Presented without a priority or ordering cue, however, these options leave the relationship among the steps for the reader to infer.

That question matters in a city where immigrants play an important role in entrepreneurship. The Pew Charitable Trusts estimated that approximately 21,000 self-employed immigrant entrepreneurs lived in Philadelphia in 2022 and that foreign-born residents represented about one-third of the city's entrepreneurs (The Pew Charitable Trusts, 2024). In Pew's analysis of 2018-2022 survey data, 40% of self-employed immigrant entrepreneurs reported difficulty with English. The wider population context is also linguistically diverse: 15.2% of Philadelphia County residents were foreign born and 24.4% of residents age five or older spoke a language other than English at home in 2020-2024 (U.S. Census Bureau, n.d.). These statistics do not mean that every immigrant entrepreneur requires translated or specialized guidance. They do mean that

language access, institutional familiarity, and the clarity of service entry points warrant attention when examining the local business-support system.

Research on immigrant entrepreneurship has moved beyond explanations based solely on individual traits or ethnic networks. The mixed embeddedness perspective locates entrepreneurial action within markets, social relations, and regulatory institutions (Kloosterman, 2010). Reviews of the field likewise emphasize the interaction of human capital, access to resources, institutional context, and intercultural embeddedness (Aliaga-Isla & Rialp, 2013; Dabić et al., 2020). From this perspective, a municipal webpage is one part of the institutional environment through which entrepreneurs encounter official expectations and routes to assistance.

Administrative-burden theory sharpens this point. Moynihan et al. (2015) distinguish learning, compliance, and psychological costs in interactions with government. Petersen et al. (2024) extend the argument to businesses, showing that organizations also bear learning and compliance costs in encounters with public systems. For someone at the idea stage, learning costs arise before an application is filed: finding the correct page, deciding which instruction applies, understanding unfamiliar terms, locating eligibility rules, and discovering whether help is free or available in another language. Online guidance can lower those costs, but it can also shift integration work onto the user when information is dispersed across agencies and providers.

Philadelphia provides an appropriate bounded case because the City publishes regulatory guidance and maintains a public referral network of nonprofit business-support organizations. The Department of Commerce assigns business service managers and lists nine Business Technical Assistance Program providers offering training, lending, English-language assistance, and legal aid (Philadelphia Department of Commerce, n.d.-b). This official referral structure allows the municipal and provider pages to be examined as a connected system rather than as unrelated search results.

Existing research establishes that immigrant entrepreneurs may face language barriers, limited host-country networks, unfamiliar administrative procedures, and constrained credit access (Desiderio, 2014; Polychronopoulos & Nguyen-Duc, 2024). It also warns that treating immigrants as a single, uniform client category can reproduce deficit assumptions or obscure meaningful differences among ventures and founders (Högberg et al., 2016; Reuther et al., 2026). What remains less studied is the content of the online guidance through which local support systems first present themselves. Program evaluations typically ask whether training, finance, or mentoring changes business outcomes. A front-door analysis asks an earlier question: Can a prospective entrepreneur tell where to begin, what will happen next, and where to obtain relevant help?

This article examines these questions through a structured content analysis of City-connected web guidance for starting a business in Philadelphia. It makes three contributions. First, it connects mixed embeddedness and administrative-burden theory by treating web guidance as an observable service entry point within the local institutional system. Second, it distinguishes the presence of an action mechanism from the presentation of a prioritized and sequenced pathway. Third, it separates multilingual access, audience recognition, institutional explanation, and referral to specialized help rather than treating an immigrant label as a sufficient measure of inclusion. The analysis asks:

1. How clearly do City-connected web resources serving Philadelphia identify an initial action?
2. How complete and navigable is the start-up pathway presented across those resources?
3. How visible are multilingual access, human assistance, and immigrant-responsive guidance?
4. How do City and provider pages differ descriptively?

These questions guide the analysis of how Philadelphia's City-connected web resources communicate and organize the first steps of business formation and support.

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

Immigrant entrepreneurship and the local institutional environment

Immigrant entrepreneurship research has long examined how founders mobilize family, community, and transnational ties. Later work challenged accounts that placed too much explanatory weight on group culture or individual resources. Kloosterman's (2010) mixed embeddedness framework instead connects the resources available to entrepreneurs with market opportunities and the institutional rules that shape entry. Regulation, neighborhood conditions, credit systems, support organizations, and professional networks therefore become part of the opportunity structure, not background conditions outside the entrepreneurial process.

Looking at the bigger picture helps when studying the start-up stage. Someone starting a business needs to turn their idea into categories that different institutions recognize, such as legal entity, taxpayer, license holder, property user, borrower, or program participant. Each of these has its own terms and steps. Entrepreneurs with local professional networks can often ask accountants, attorneys, lenders, or experienced peers for help or to check their work. Newcomers might know a lot about business but still lack the local contacts and know-how to understand the process in the same way. Desiderio (2014) describes this combination of language, host-country knowledge, networks, credit, and administrative barriers as a central rationale for both mainstream and targeted business-support measures.

Large reviews confirm that immigrant entrepreneurship is heterogeneous. Dabić et al. (2020) map research across strategies, motivation and resources, human capital, and intercultural embeddedness. Ram et al. (2017) argue for closer attention to regulation, racism, gender, class, market positioning, and historical context. A recent systematic review of migrant entrepreneurship support in Europe similarly identifies varied challenges and a fragmented evidence base for support policies (Polychronopoulos & Nguyen-Duc, 2024). Although those studies span national contexts, together they caution against assuming that the same informational deficit or program design applies to every immigrant entrepreneur.

Support organizations face a corresponding design tension. Targeted services can provide language access, trust, culturally familiar networks, and help with barriers that mainstream programs overlook. Yet labels can also construct clients as deficient or outside the entrepreneurial mainstream (Högberg et al., 2016). Reuther et al. (2026) find substantial heterogeneity within migrant and non-migrant groups and argue that support fit can depend on venture characteristics, including transnational orientation, rather than migrant status alone. The implication for communication design is not to choose between universal and targeted guidance. It is to create a clear common pathway with optional bridges to specialized help.

Learning costs and the online front door

Administrative burden provides a vocabulary for the effort that precedes compliance. Moynihan et al. (2015) define learning costs as the work of discovering a program, determining eligibility, and understanding the process. These costs can be unequal because users differ in time, literacy, institutional experience, technology, and access to assistance. Petersen et al. (2024) show that businesses also experience burdens arising from public procedures and requirements. Their study concerns government contracting, but the conceptual extension is relevant to start-up guidance: firms and prospective firms must learn administrative systems, and public design choices shape that work.

A web page can reduce learning costs in several ways. It can name a priority audience, state one immediate action, order later steps, explain prerequisites, disclose time and cost, and provide a person to contact when the pathway does not fit. These features are also consistent with clear-communication principles. The Centers for Disease Control and Prevention's Clear Communication Index is a research-based tool that emphasizes a defined audience, an evident main message, and an actionable recommendation (Centers for Disease Control and Prevention, n.d.; Baur & Prue, 2014). The present study does not apply the health-specific index as a validated score for entrepreneurship websites. It adapts its underlying communication logic to a different context: a reader should be able to identify whom the material is for and what action to take.

This distinction separates clickability from orientation. A page may contain many working links and still leave the ordering of options unclear. It may describe a useful program but omit who qualifies, what it costs, or when a response can be expected. Conversely, a short page can present a strong first step when it prioritizes one action and offers a direct route to relevant help. The unit of concern is therefore the decision the page enables at first contact, not the volume of information it contains.

Inclusion as layered access

For immigrant entrepreneurs, inclusion has at least four communicative layers. The first is linguistic access: translated content, a language selector, bilingual staff, or interpretation. The second is audience recognition: a reader can see whether newcomers or immigrant entrepreneurs are included. The third is institutional translation: the guidance explains locally specific concepts and their sequence. The fourth is a safe route for issues that general business offices should not answer themselves, such as immigration-law or documentation questions.

These layers should not be collapsed. A site-wide translation option can make the same content available in multiple languages, but it does not necessarily identify which legal or financial questions require specialized advice. An immigrant-serving program can signal trust and belonging, but a broad label cannot represent the needs of every founder. Recent research examines how immigrant entrepreneurs use strategic communication to navigate markets, services, and social spaces, underscoring the importance of the communicative environments they encounter (Ju et al., 2026). Philadelphia's language-access policy also states that access to City services should not depend on English proficiency or citizenship status and provides free interpretation when requested (City of Philadelphia, n.d.-c).

Drawing these strands together, the study proposes a four-part First-Step Accessibility framework. Orientation asks whether the page identifies its audience, prioritizes an immediate action, and shows a sequence. Activation asks whether the reader can act and whether eligibility, cost, and time are visible. Navigation asks whether relevant human help is available and which substantive start-up topics are covered. Inclusion asks whether language options, business-related language assistance, immigrant recognition, and documentation-sensitive referral cues are present. In this study, accessibility means access to information and a service entry route; it does not mean technical accessibility conformance.

The framework is narrower than three neighboring approaches. Technical web-accessibility standards such as WCAG 2.2 evaluate whether web content and interfaces are perceivable, operable, understandable, and robust for people with disabilities (World Wide Web Consortium, 2024). This study does not test those success criteria. Administrative-burden theory identifies learning, compliance, and psychological costs; First-Step Accessibility instead records page-visible cues that may relate to learning work. It does not measure burden experienced by users.

Service-design research examines connected touchpoints and the service experience across a system (Patrício et al., 2011). First-Step Accessibility has a more limited document-based purpose: it records what a reader can identify and do at an initial web-based point of contact and whether the page provides a visible handoff. It can inform service design, but it does not substitute for journey mapping, co-design, or usability testing. The four dimensions are a descriptive organizing device, not a validated scale.

METHODOLOGY

Research design and case boundary

The study used directed qualitative content analysis, an approach in which prior theory guides initial categories while close reading remains available to identify patterns within the material (Hsieh & Shannon, 2005). The design was cross-sectional and exploratory. Initial source discovery and evidence capture occurred between July 3 and September 5, 2026. All 14 sampled pages and nine referral links were rechecked on September 5, which served as the common observation date for the content and link classifications. The study did not attempt to measure comprehension, program quality, service use, or business outcomes.

The case boundary followed the institutional path presented by the City of Philadelphia. Sampling began with the City's public business and self-employment pages and the Department of Commerce's one-on-one business-support page. The latter describes the Business Technical Assistance Program and names nine funded nonprofit assistance providers (Philadelphia Department of Commerce, n.d.-b). This frame was selected before coding because it is an official municipal referral structure, is reproducible from a single public source, and includes both general and immigrant-serving organizations. It avoids treating search-engine prominence as evidence that a resource belongs to the City's support system.

Corpus construction

The page-level corpus contained 14 webpages. The City stratum included seven pages that directly served the start-up or support pathway: the main "Starting a business" landing page; "Register a business"; "Find location and zoning information"; "Business licenses, permits, and approvals"; "One-on-one business support"; "Meet your area's business services manager"; and the City's substantive article, "Five tips for starting a business in Philadelphia" (City of Philadelphia, n.d.-a, n.d.-b, n.d.-d, n.d.-e; Fofana-Bility, 2025; Philadelphia Department of Commerce, n.d.-a, n.d.-b). The article was retained because it functions as durable procedural guidance and supplies a sequence missing from the shorter start-up landing page.

The provider stratum contained one page for each City-listed provider whose referral reached a relevant business-support organization and whose site supplied a start-up-relevant page. From each destination, the page most directly addressed to prospective or early-stage entrepreneurs was selected within one navigation step. The final set comprised Entrepreneur Works'

Start It Grow It page, Finanta's guidance page, SCORE Greater Philadelphia's chapter page, The Business Center's coaching page, The Enterprise Center's consulting page, The Welcoming Center's business-planning page, and the Women's Opportunities Resource Center's HUB entrepreneurship page (Entrepreneur Works, n.d.; Finanta, n.d.; SCORE, n.d.; The Business Center, n.d.; The Enterprise Center, n.d.; The Welcoming Center, n.d.; Women's Opportunities Resource Center, n.d.).

Six were classified as general business-support providers and one, The Welcoming Center, as immigrant-serving. The classification describes the page's explicit audience and organizational mission; it does not imply that general providers exclude immigrants.

Two City referrals did not produce eligible provider pages. The Kiva link redirected to the general Department of Commerce homepage, and the domain listed for the Women's Business Development Center resolved to content unrelated to entrepreneurship support. These destinations were excluded from the 14-page content corpus because coding them as guidance would distort the comparison. They were retained in a separate audit of all nine City-listed referral links.

Pages were eligible when they were public, accessible without a login, served prospective or early-stage business owners in Philadelphia, and provided regulatory guidance, business-readiness guidance, or a route to personalized assistance. Duplicate redirects, event-only notices, general news, pages solely for established-firm growth finance, and directories without substantive guidance or intake were excluded. The unit of analysis was the webpage as presented.

Visible body copy, persistent navigation, embedded forms, and on-page links or contact details were coded. Content on a linked page was not credited to the focal page, although the existence of a relevant link could satisfy the action-mechanism item. Because the pages served different purposes, absence of a topic was not treated as an individual-page failure; topic coverage was interpreted collectively and alongside the available handoffs.

Coding framework

The codebook operationalized four domains and a separate map of topic coverage. Table 1 summarizes the framework; complete decision rules appear in Appendix B.

Table 1: Proposed First-Step Accessibility coding framework

Dimension	Indicators	Interpretive question
Orientation	Prospective audience; first-step clarity (0-2); ordered actions or stages	Can the reader identify relevance, a priority, and a path?
Activation	Action link/form/contact; eligibility or prerequisites; cost; time or response	Can the reader act and anticipate the basic terms?
Navigation	Topic-relevant human help; regulatory and business-readiness topic coverage	Can the reader find expertise and connect necessary domains?
Inclusion	Multilingual content; language help; immigrant audience; documentation-sensitive referral	Can a newcomer recognize and use an appropriate route?

Note. Items are descriptive and are not summed into a validated quality score.

Orientation included whether prospective entrepreneurs were explicitly named; a three-level first-step item; and the presence of at least two ordered actions or stages. A first-step score of 0 indicated no plausible next action, 1 indicated options or a general direction without a prioritized starting point, and 2 indicated a concrete action that could be taken immediately to advance a launch or obtain relevant help.

Activation included a relevant action mechanism, eligibility or prerequisite information, cost or free status, and a duration, schedule, deadline, or response expectation. Navigation included topic-relevant human assistance and six substantive topics: legal structure, tax or registration identifiers, licensing or zoning, business planning, financing, and market or operating readiness. Inclusion included a visible language selector or substantive non-English content, business-related language assistance, explicit reference to immigrant entrepreneurs, and immigration-sensitive documentation guidance or referral. The last item did not ask a general business page to provide immigration-law advice. It asked whether the page acknowledged documentation questions that may affect noncitizens and directed the reader to an appropriate explanation or qualified source. A page that merely listed an SSN or EIN without immigrant-specific context did not satisfy the item.

The coding framework operationalized the preceding concepts rather than measuring them directly. Mixed embeddedness informed the map of regulation, finance, networks, and support organizations (Kloosterman, 2010). Administrative-burden research informed attention to sequence, eligibility, time, and the work of locating assistance (Moynihan et al., 2015; Petersen et al., 2024). Clear-communication research informed the distinction between an available action and an evident main action (Baur & Prue, 2014; Centers for Disease Control and Prevention, n.d.). Service-design scholarship informed the interpretation of handoffs across touchpoints, but this study did not observe a user journey (Patrício et al., 2011). The indicators were reported separately rather than summed because they are formative, context-dependent features and have not been validated as a scale.

Coding procedure and analysis

Each page was reviewed twice against the written rules. During the first pass, scores were entered with a page-specific evidence note. The second pass revisited every item against the source page and the decision rule. Two initially broad topic judgments were narrowed: generic skills training was not counted as business planning, and a consultation page that discussed taxes without tax or registration identifiers was not credited with identifier guidance. The final dataset was then checked for duplicate units, missing values, allowed score ranges, and logical consistency. Because a single coder completed the audit, no intercoder reliability coefficient is reported. The evidence-note procedure improves auditability but does not substitute for independent coding.

Analysis consisted of counts and percentages for the full corpus, descriptive comparisons between the seven City and seven provider pages, and a topic-coverage map. With only 14 purposively selected, institutionally connected pages, inferential statistics would imply a sampling logic the study does not have. The link audit reports destination categories for all nine City referrals. The study involved public organizational documents and no human participants or private data.

RESULTS

Corpus profile and first-step orientation

Eleven of the 14 pages (78.6%) explicitly addressed people considering, opening, starting, launching, or registering a business. The three exceptions were pages whose content focused on zoning, permit categories, or consulting for an existing business. Even those pages could be relevant during start-up, but a first-time visitor had to infer that relevance from the site hierarchy or topic.

All 14 pages contained at least one mechanism through which a reader could act: a link, form, email address, or phone number. Ten pages (71.4%) went further by prioritizing a concrete immediate action. Examples included choosing a legal structure, searching an address in the City's Atlas tool, contacting a neighborhood business service manager, entering a ZIP code to find a SCORE mentor, completing a provider interest form, applying to a course, or taking a short intake quiz. Four pages presented useful choices or described assistance without establishing a clear starting priority. No page was entirely devoid of a plausible action.

The high action-mechanism count therefore did not translate into a consistently sequenced journey. Five pages (35.7%) presented at least two ordered actions or stages. The City's registration page and five-tips article supplied the clearest regulatory sequence, moving from structure to identifiers, City registration, and licensing (City of Philadelphia, n.d.-d; Fofana-Bility, 2025). Several providers used program or journey sequences: Entrepreneur Works framed an idea-to-launch curriculum, SCORE organized start-up resources into a roadmap, and WORC distinguished an idea stage from later growth (Entrepreneur Works, n.d.; SCORE, n.d.; Women's Opportunities Resource Center, n.d.). Most other pages worked as single-purpose modules. Table 2 reports the complete indicator distribution.

Table 2: Coverage of first-step accessibility indicators

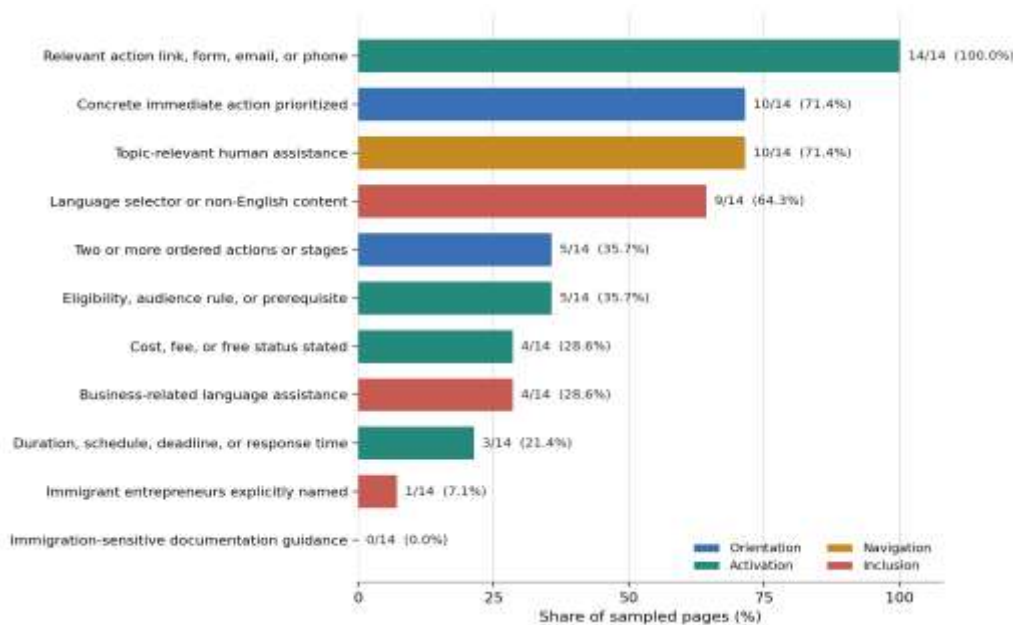
Indicator	All pages (n = 14)	City pages (n = 7)	Provider pages (n = 7)
Relevant action link, form, email, or phone	14/14 (100.0%)	7/7 (100.0%)	7/7 (100.0%)
Concrete immediate action prioritized	10/14 (71.4%)	5/7 (71.4%)	5/7 (71.4%)
Topic-relevant human assistance	10/14 (71.4%)	4/7 (57.1%)	6/7 (85.7%)
Language selector or non-English content	9/14 (64.3%)	7/7 (100.0%)	2/7 (28.6%)
Two or more ordered actions or stages	5/14 (35.7%)	2/7 (28.6%)	3/7 (42.9%)
Eligibility, audience rule, or prerequisite	5/14 (35.7%)	2/7 (28.6%)	3/7 (42.9%)
Cost, fee, or free status stated	4/14 (28.6%)	2/7 (28.6%)	2/7 (28.6%)
Business-related language assistance	4/14 (28.6%)	3/7 (42.9%)	1/7 (14.3%)
Duration, schedule, deadline, or response time	3/14 (21.4%)	0/7 (0.0%)	3/7 (42.9%)
Immigrant entrepreneurs explicitly named	1/14 (7.1%)	0/7 (0.0%)	1/7 (14.3%)
Immigration-sensitive documentation guidance	0/14 (0.0%)	0/7 (0.0%)	0/7 (0.0%)

Note. Percentages are descriptive. The provider stratum includes six general providers and one immigrant-serving provider. Shared platform features, especially the phila.gov language selector, appear on multiple pages.

The City-provider comparison shows complementary strengths rather than a simple performance hierarchy. Five of seven pages in each stratum prioritized a concrete immediate action. All pages in both groups contained an action mechanism. Provider pages were somewhat more likely to present a sequence (3/7 versus 2/7), state eligibility or requirements (3/7 versus 2/7), give time or response information (3/7 versus 0/7), and offer relevant human assistance (6/7 versus 4/7). City pages were much more likely to display multilingual page access (7/7 versus 2/7), a difference largely produced by the shared phila.gov language interface. Because pages within a website inherit common design features, these observations are descriptive and not independent organization-level estimates.

Figure 1 shows the central asymmetry. Visible actions and human help were common; the information needed to anticipate a process was less common. Eligibility or prerequisites appeared on five pages (35.7%). Four (28.6%) stated a cost, fee, or free status for a principal action or program. Three provider pages (21.4% of the corpus) supplied a program duration, schedule, or response expectation; none of the City pages stated a processing or response time for its principal start-up action.

Figure 1: Coverage of selected first-step accessibility indicators across sampled pages



Note. Counts are based on the final two-pass coding table. Category colors organize indicators; they do not represent a composite score.

Regulatory and business-readiness topics are distributed across source groups

No sampled page covered every regulatory and business-readiness topic. Licensing, permitting, or zoning appeared most often among regulatory topics, on six pages (42.9%). Legal structure appeared on four (28.6%), and tax or registration identifiers on three (21.4%). The City accounted for five of the six licensing or zoning pages and two of the three identifier pages. SCORE was the only provider page to combine a broad national start-up roadmap with structure, identifiers, licenses, planning, finance, and operating topics.

Provider pages carried most readiness content. Business planning or idea validation appeared on five pages (35.7%), all from providers. Financing or financial readiness appeared on seven pages (50.0%), six of them provider pages. Market or operating readiness also appeared on seven pages, five from providers. The Department of Commerce's provider directory was the only City page to name financing as a service route, while the location and zoning pages supplied the City's two operating-readiness references. Table 3 makes the division visible.

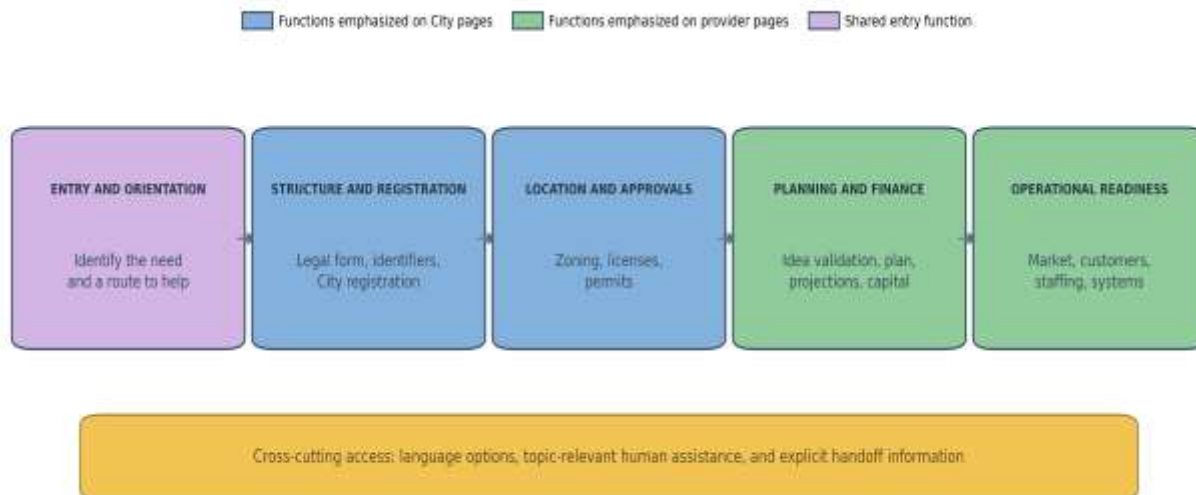
Table 3: Start-up topic coverage by source group

Topic	All pages (n = 14)	City pages (n = 7)	Provider pages (n = 7)
Legal structure	4/14 (28.6%)	2/7 (28.6%)	2/7 (28.6%)
Tax or registration identifiers	3/14 (21.4%)	2/7 (28.6%)	1/7 (14.3%)
Licensing, permits, or zoning	6/14 (42.9%)	5/7 (71.4%)	1/7 (14.3%)
Business planning or idea validation	5/14 (35.7%)	0/7 (0.0%)	5/7 (71.4%)
Financing or financial readiness	7/14 (50.0%)	1/7 (14.3%)	6/7 (85.7%)
Market or operating readiness	7/14 (50.0%)	2/7 (28.6%)	5/7 (71.4%)

Note. A topic is coded as present only when it is named as guidance or a service area on the focal page. Content located solely on another linked page is not coded as present.

These distributions reflect institutional specialization: City pages concentrated on regulatory categories, whereas provider pages concentrated on planning, finance, and operations. Specialization is not itself evidence of a service failure, and no single page should be expected to cover the entire start-up process. The coordination question arises at the handoff between pages. In the sampled corpus, most coded topics appeared somewhere in the network, but only five pages ordered two or more actions or stages. The pages therefore presented complementary resources more clearly than they presented a shared pathway among them.

Figure 2: Illustrative connection among functions emphasized in the sampled City and provider pages



Note. The figure synthesizes the distribution of coded topics and the handoffs proposed in the discussion. Arrows show an illustrative connection among functions, not a required legal order or an observed user journey.

Human and language access

Ten pages (71.4%) offered topic-relevant human help. City examples included a Planning and Development contact for zoning questions, the Department of Commerce's provider network, multilingual business service managers, and a direct Mayor's Business Action Team phone number or email (City of Philadelphia, n.d.-b; Philadelphia Department of Commerce, n.d.-a, n.d.-b). Provider examples included lenders, mentors, coaches, consultants, advisers, attorneys, and accountants. This is an important feature of the sampled system because it provides a route for questions that static page content may not anticipate.

The path to that help was not always equally informative. Some pages paired a specific action with a role, form, or response expectation. WORC, for example, told uncertain visitors to use a short quiz and stated that an email match would follow within 24 hours. The Welcoming Center supplied application links, course schedules, participation requirements, a staff contact, and interpretation information (The Welcoming Center, n.d.). Other pages described coaching or guidance but left the intake process, eligibility, cost, or timing implicit. Human help was therefore often available before the terms of engagement were fully visible.

Nine pages (64.3%) displayed a language selector or substantive non-English content. All seven City pages inherited phila.gov's multilingual interface. Finanta provided an English-Spanish option, and The Welcoming Center placed English and Spanish course information on the same page. The corpus therefore documents visible multilingual infrastructure, but the result should be interpreted at the platform level as well as the page level: seven observations share one City template.

Only four pages (28.6%) explicitly connected language assistance to business support. The City's provider matrix identified English-language assistance; its business service manager page advertised bilingual staff and free interpretation in 160 languages; and the five-tips article described multilingual assistance. The Welcoming

Center advertised interpretation and Spanish-language programming. The remaining multilingual pages offered translation controls without page-specific information about a bilingual adviser or interpreter.

Immigrant recognition and documentation-sensitive guidance

Only The Welcoming Center's page explicitly named immigrant entrepreneurs as an intended audience (1/14, 7.1%). Its page also combined that signal with English and Spanish applications, interpretation, eligibility requirements, and a named staff contact. None of the other pages excluded immigrants; most used universal language such as prospective owner or entrepreneur. The code captures visibility, not legal eligibility or organizational intent.

No page satisfied the immigration-sensitive documentation item. The official registration page explained that a business identifier may be an SSN or EIN depending on structure, but it did not acknowledge questions that can arise for a noncitizen reader or provide a targeted referral (City of Philadelphia, n.d.-d). None of the provider pages filled that gap. This result should not be read as a recommendation that City staff provide immigration advice. It identifies the absence of a carefully bounded bridge, such as a link to qualified legal assistance explaining when business formation, tax identification, work authorization, and immigration status require separate analysis.

Multilingual access and immigrant-responsive navigation are distinct. Although nine pages offered multilingual access, only one explicitly named immigrant entrepreneurs, and no page provided documentation-sensitive guidance or referral. Translation addresses language access; it does not by itself explain how institutions, requirements, or specialized forms of advice relate.

Referral integrity

Seven of the nine links on the City's Business Technical Assistance Program table reached the named organization or its current successor. The Community First Fund link redirected to Finanta, whose homepage explained the name change, and the legacy SCORE link redirected to the current Greater Philadelphia chapter. These were classified as relevant destinations.

Two links did not deliver the promised provider path. The Kiva link redirected to the general Department of Commerce homepage rather than Kiva-specific information. The domain listed for the Women's Business Development Center resolved on the collection date to content unrelated to business development or entrepreneurship support. Table 4 reports the observed outcomes without inferring why they occurred.

Table 4: Destination audit of City-listed technical-assistance providers

City-listed provider	Observed destination outcome	Status
Entrepreneur Works	Canonical redirect to named provider homepage	Relevant
Community First Fund	Redirect to Finanta, the organization's current name	Relevant
Kiva	Redirect to general Department of Commerce homepage	Misdirected
SCORE Philadelphia	Redirect to current Greater Philadelphia SCORE page	Relevant
The Business Center	Named provider homepage	Relevant
The Enterprise Center	Canonical redirect to named provider homepage	Relevant
The Welcoming Center	Canonical redirect to named provider homepage	Relevant
Women's Business Development Center	Domain resolved to content unrelated to business support	Unrelated
Women's Opportunities Resource Center	Canonical redirect to named provider homepage	Relevant

Note. Links were rechecked from the City's "One-on-one business support" page on September 5, 2026.

The link audit demonstrates that technical function and service relevance are distinct. A referral link can return a valid response yet fail to reach the expected service. Link maintenance is therefore part of the reliability of

online referral guidance. These observations are time-specific and do not demonstrate that the underlying forms of support were unavailable through other routes.

DISCUSSION

Distributed capacity and the cost of assembly

The main finding is a difference between resource availability and pathway integration. The sampled system contained regulatory information, multilingual pages, one-on-one assistance, planning programs, financing routes, and operating guidance. Every page offered a link, form, email address, or phone number. However, the pages rarely presented these resources as one process with a visible sequence and basic information about eligibility, cost, and timing. The evidence therefore supports a bounded interpretation: the corpus shows substantial but distributed capacity and leaves much of the relationship among resources unstated.

This pattern applies mixed embeddedness to the design of service entry points. Regulatory and support organizations form part of the institutional environment within which entrepreneurs seek resources (Kloosterman, 2010), and their websites help define the pathway visible at initial contact. In this corpus, City pages concentrated on structure, registration, licensing, and zoning, while provider pages concentrated on planning, finance, and operating readiness. The pattern indicates institutional complementarity but limited visible orchestration across pages. Whether entrepreneurs, including newcomers without local advisers, actually perceive or experience the system this way requires user research.

Administrative-burden theory helps interpret this pattern but was not directly measured. A working link removes one potential search obstacle; a prioritized action may reduce decision work; and visible sequence, eligibility, cost, and timing may help a reader anticipate a process. Human assistance provides an additional route when a standard pathway does not fit. Because the study did not observe user effort, these features are treated as page-level design cues related to possible learning costs, not as demonstrated reductions in administrative burden.

The findings also show that informational volume was not equivalent to coded first-step clarity. Philadelphia's business service manager page was concise but identified its audience, described the role, listed language options, and provided direct contact details. Other pages contained numerous links or program descriptions without presenting a sequence. For this analysis, the relevant design question is whether the page identifies a next decision, not how much content it contains.

Translation, recognition, and a safe bridge to specialized help

The language-access result is both encouraging and incomplete. The shared City interface makes multilingual access visible across all seven municipal pages, and the business service manager page provides a strong human fallback through bilingual staff and interpretation. Those features matter in a city where Pew found that 40% of self-employed immigrant entrepreneurs reported difficulty with English (The Pew Charitable Trusts, 2024). They also align with Philadelphia's policy that City services be available across languages (City of Philadelphia, n.d.-c).

Translated content, audience recognition, institutional explanation, and specialized referral address different communication problems. Translation may improve language access; audience recognition signals relevance; institutional explanation clarifies how terms and agencies connect; and a qualified referral marks the boundary of general business guidance. In the sampled corpus, multilingual access was common, whereas immigrant recognition and documentation-sensitive referral were rare.

This does not justify adding an immigrant label to every page. Högberg et al. (2016) show that support organizations can reproduce hierarchy through well-intended categorization. Reuther et al. (2026) likewise caution that migrant status alone does not determine which program design will be useful. A practical response is a layered approach: make the common pathway clear, then provide optional and visible routes to language

assistance, newcomer orientation, and qualified legal or documentation support. This approach recognizes differences without treating immigrants as a uniform client category.

The absence of documentation-sensitive guidance also illustrates the importance of clear boundaries. Registration instructions may mention an SSN or EIN, while some readers may separately have questions about work authorization or immigration status. Those are distinct legal issues. A City business page should not provide individualized immigration advice, but it can explain the scope of its guidance and direct readers with related questions to qualified assistance. This is a referral recommendation, not a claim that every immigrant entrepreneur has a documentation problem.

Implications for local service design

The findings support five practical changes.

First, Philadelphia could create a single, regularly updated start-up roadmap organized around common entry situations rather than agency categories. A reader might begin with 'I have an idea,' 'I need to register,' 'I am choosing a location,' or 'I need a person to help me.' The roadmap could show how legal structure, federal identification, City tax registration, licensing, zoning, planning, and finance relate, while preserving links to official pages for rules that may change. The pathway should allow for different starting points rather than imply that every venture follows one fixed order.

Second, the City and participating providers could adopt a minimum information standard for handoffs: the intended audience, immediate action, prerequisites, cost or free status, expected timing, language availability, and a topic-relevant contact. These fields correspond directly to indicators that were inconsistently visible in the corpus. A shared template would preserve program differences while making referrals easier to compare at the point of entry.

Third, the City could manage outbound provider links as part of routine content governance. Each link could have an assigned owner, a last-checked date, and a review schedule. A review should inspect the final destination rather than only confirm that a server returns a valid response. In the September 5 audit, two links functioned technically but did not reach the expected provider information.

Fourth, language access could combine several visible elements: a translation control, information about bilingual staff or interpreters, instructions for requesting assistance, and translated intake materials where available. Pages should also indicate how translated versions are kept aligned with current English content. This recommendation follows the difference observed between general multilingual access on nine pages and business-specific language assistance on four.

Fifth, the City and its partners could co-design and test a brief documentation referral with immigrant entrepreneurs and qualified legal-service organizations. The referral should distinguish business registration information from immigration-law advice, define what City or provider staff can answer, and identify an appropriate source for questions outside that scope. Co-design and legal review are important because the present content analysis establishes absence from the sampled pages, not the wording or format that users would trust.

Organizations do not need to become full-service portals to make these changes. The priority is clearer coordination at handoff points. Providers in the sample already offered much of the coded human assistance, planning, financing, and operating support. A shared roadmap and minimum handoff standard could make the relationship between that support and the City's regulatory guidance more visible.

Research contribution

The study's conceptual contribution is an operational distinction between availability and orchestration at the web-based first point of contact. Mixed embeddedness identifies the institutional settings in which entrepreneurs seek resources (Kloosterman, 2010). Administrative-burden research identifies learning and compliance costs in encounters with public systems (Moynihan et al., 2015; Petersen et al., 2024). Clear-communication research emphasizes an identifiable audience, main message, and action (Baur & Prue, 2014). First-Step Accessibility brings these concerns into one descriptive audit through four functions: orientation, activation, navigation, and inclusion.

The framework also treats inclusion as more than a translation count by separating multilingual page access, business-specific language help, audience recognition, and documentation-sensitive referral. Its intended use is diagnostic: researchers or public agencies can examine which cues are visible, where functions are distributed, and which handoffs require further investigation. Comparative application to other municipal entrepreneurship portals should follow reliability testing and adaptation to local context.

The network interpretation also sets a boundary on page-level coding. Coding can identify where content and handoff cues are present, but it cannot establish how an actual service journey unfolds. Future studies could map referral paths as a directed network and examine click depth, repeated requirements, missing handoffs, and points where participants report uncertainty. That extension would connect this document-based diagnostic more closely to service design and user experience research.

Limitations and Future Research

This study has six main limitations. First, the sample is small and purposively bounded. It includes only City pages and City-listed providers, not the full range of support available in Philadelphia. Libraries, community groups, ethnic associations, universities, banks, attorneys, search engines, and social media may present different routes. The findings therefore characterize the sampled City-connected web system and should not be generalized to all Philadelphia guidance or to other cities.

Second, the analysis reflects a collection window from July 3 to September 5, 2026, with a final verification on September 5. Pages, programs, redirects, and language options can change.

Third, the webpage was the unit of analysis. A user may reasonably move across several pages, and shared platform elements mean that observations within the same site are not independent. The City-provider percentages are descriptive summaries, not estimates for broader organizational populations.

Fourth, visible content is not equivalent to usability. The study did not measure reading comprehension, translation accuracy, mobile performance, form completion, trust, or participants' experiences when seeking help. It also did not test conformance with WCAG or other technical accessibility standards for people with disabilities. Census data show that 89.1% of Philadelphia County households had a broadband subscription in 2020-2024, but household access does not establish reliable individual access or digital skills (U.S. Census Bureau, n.d.). Offline routes remain important.

Fifth, a single coder completed the structured audit. The second pass, written rules, and evidence notes improved consistency and auditability, but they do not replace independent coding. The proposed framework is also provisional. Independent double coding of a subset, discussion of disagreements, and an agreement statistic are needed to test whether other coders apply the distinctions consistently before the framework is used as a comparative evaluative instrument.

Sixth, this study examines communication rather than outcomes. It does not show whether a missing step delays business formation, whether translated pages increase service use, or whether immigrant-recognition cues build trust. Interviews, task-based usability tests, clickstream analysis, and service-intake data could test those relationships. Research conducted with immigrant entrepreneurs could identify which first step they

notice, which terms create uncertainty, and when specialized guidance is helpful. Independent coding and comparative multi-city studies could then examine the framework's reliability and transferability.

CONCLUSION

Across the 14 sampled pages, every page offered at least one action route and 10 prioritized a concrete immediate action. The sampled system therefore did not lack entry points. Its limitation was that the pages rarely presented those entry points as a shared sequence: five ordered at least two actions or stages, and eligibility, cost, and timing were often unstated. City pages concentrated on regulatory route-finding, while provider pages concentrated on planning, finance, and operating readiness. This pattern supports a bounded conclusion: the corpus contained substantial but distributed capacity and a web-based coordination gap at the handoffs among resources. It does not establish that users were confused or that the underlying services were ineffective.

The multilingual City platform and the availability of topic-relevant human assistance are important strengths. Yet multilingual access was more visible than business-specific language assistance, immigrant recognition, or documentation-sensitive referral. A central roadmap, consistent handoff fields, maintained provider links, and clearly identified language and qualified referral options could make the relationship among existing resources more visible. Because the framework is provisional and user experiences were not measured, the next step is to test these design propositions with entrepreneurs, independent coders, and comparative cases. In this study, First-Step Accessibility is a diagnostic of web guidance, not a measure of service quality or business outcomes.

Declarations

Funding. No external funding was received for this study.

Conflict of interest. The author declares no conflict of interest.

Ethical approval. This study analyzed publicly available organizational webpages and involved no human participants, animals, intervention, or private data. Ethical approval and informed consent were therefore not applicable.

Data availability. Appendices A and B contain the coded corpus, decision rules, page-level evidence notes, and referral-audit outcomes. The webpages are publicly accessible through the links in Appendix A and the reference list. Sources were collected between July 3 and September 5, 2026; all page-level observations and referral outcomes were verified on September 5, the common observation date.

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APPENDIX A: CORPUS AND AUDIT TRAIL

Table A1: Page-Level Corpus

ID	Organization	Page title (linked)	Coding evidence note
G1	City of Philadelphia	Starting a business	Landing page routes readers to zoning, trade licenses, and sector permits but does not name one first action.
G2	City of Philadelphia	Register a business	Names choosing a legal structure as the first step, then sequences EIN/SSN, City tax registration, and the Commercial Activity License; states the CAL is free.
G3	City of Philadelphia	Find location and zoning information	Directs readers to search an address in Atlas and provides Planning and Development contact details for questions.
G4	City of Philadelphia	Business licenses, permits, and approvals	Offers linked permit categories by activity and industry without sequencing or an intake contact.
G5	City of Philadelphia	One-on-one business support	Routes readers to a business service manager and nine funded providers; the provider matrix names training, lending, English assistance, and legal aid.
G6	City of Philadelphia	Meet your area's business services manager	Identifies prospective owners as eligible and provides email and phone intake; lists bilingual staff and free interpretation in 160 languages.
G7	City of Philadelphia	Five tips for starting a business in Philadelphia	Sequences structure, federal identification, City tax registration, licensing, and multilingual help; notes the CAL and a tax-preparation program are free.
P1	Entrepreneur Works	Start It. Grow It.	Describes a five-part idea-to-launch curriculum, an eight-week commitment, and an on-page enrollment form.

ID	Organization	Page title (linked)	Coding evidence note
P2	Finanta	Starting, Growing, Expanding	Names business-plan, projection, and loan guidance and provides a specific staff contact, but does not frame a single first action.
P3	SCORE Philadelphia	Greater Philadelphia	Provides an ordered start roadmap and a ZIP-code form for free local mentoring.
P4	The Business Center	One on One Coaching	Promises expert pairing for prospective and existing entrepreneurs and embeds an intake form, but gives little visible process or eligibility detail.
P5	The Enterprise Center	Consulting	Explains one-on-one consulting topics and links directly to a client interest form; the page is written mainly to existing business owners.
P6	The Welcoming Center	Business Planning Courses	Offers English and Spanish applications, schedules and course requirements, names immigrant and underserved entrepreneurs, gives staff contacts, and advertises interpretation.
P7	Women's Opportunities Resource Center	The HUB Entrepreneurship Programs	Segments users by idea and growth stage, offers a start quiz and free assistance, and promises an email match within 24 hours.

Note. Pages were accessed between July 3 and September 5, 2026, and all were rechecked on September 5.

Table A2: Orientation and Activation Codes

ID	Audience named	First-step clarity	Action route	Ordered steps	Eligibility stated	Cost stated	Time stated
G1	1	1	1	0	0	0	0
G2	1	2	1	1	1	1	0
G3	0	2	1	0	0	0	0
G4	0	1	1	0	0	0	0
G5	1	2	1	0	0	0	0
G6	1	2	1	0	1	0	0
G7	1	2	1	1	0	1	0
P1	1	2	1	1	1	0	1
P2	1	1	1	0	0	0	0
P3	1	2	1	1	0	1	0
P4	1	1	1	0	0	0	0
P5	0	2	1	0	0	0	0
P6	1	2	1	0	1	0	1
P7	1	2	1	1	1	1	1

Note. Codes: 0 = absent and 1 = present. First-step clarity uses 0 = no plausible action, 1 = general direction without a prioritized starting point, and 2 = a concrete immediate action.

Table A3: Navigation and Inclusion Codes

ID	Human help	Multilingual access	Language assistance	Immigrant audience	Documentation referral
G1	0	1	0	0	0
G2	0	1	0	0	0
G3	1	1	0	0	0
G4	0	1	0	0	0
G5	1	1	1	0	0
G6	1	1	1	0	0
G7	1	1	1	0	0
P1	0	0	0	0	0
P2	1	1	0	0	0
P3	1	0	0	0	0
P4	1	0	0	0	0
P5	1	0	0	0	0
P6	1	1	1	1	0
P7	1	0	0	0	0

Note. Codes: 0 = absent and 1 = present. Documentation referral means an immigrant-specific explanation or referral concerning identity, tax identifiers, work authorization, immigration status, or related documents.

Table A4: Topic-Coverage Codes

ID	Legal structure	Tax identifier	Licensing or zoning	Business planning	Financing	Market or operations
G1	0	0	1	0	0	1
G2	1	1	1	0	0	0
G3	0	0	1	0	0	1
G4	0	0	1	0	0	0
G5	0	0	0	0	1	0
G6	0	0	0	0	0	0
G7	1	1	1	0	0	0
P1	0	0	0	1	1	1
P2	0	0	0	1	1	0
P3	1	1	1	1	1	1
P4	0	0	0	0	0	0
P5	1	0	0	0	1	1

ID	Legal structure	Tax identifier	Licensing or zoning	Business planning	Financing	Market or operations
P6	0	0	0	1	1	1
P7	0	0	0	1	1	1

Note. Codes: 0 = topic absent and 1 = topic present. Coding is page-specific; a link to another page does not transfer that page's content to the focal unit.

APPENDIX B: FULL CODING RULES

Table B1: First-Step Accessibility codebook

Indicator	Values	Decision rule
Prospective audience identified	0/1	Directly names people considering, starting, launching, registering, or opening a business; site hierarchy alone is insufficient.
First-step clarity	0/1/2	0 = no plausible action; 1 = options or general direction without priority; 2 = concrete action that can be taken now to advance a launch or obtain help.
Direct action route	0/1	A relevant visible link, form, email address, or phone number enables action from the page.
Ordered actions or stages	0/1	Presents at least two ordered start-up actions or journey stages; an unordered topic list does not qualify.
Legal structure	0/1	Names an entity structure or legal form as substantive guidance or a consultation topic.
Tax or registration identifier	0/1	Addresses an EIN, SSN, City tax identifier, tax registration, or an equivalent registration identifier.
Licensing, permits, or zoning	0/1	Addresses licensing, permitting, approvals, location, or zoning requirements.
Business planning or idea validation	0/1	Addresses idea validation, market research, a business model, or a business plan; generic skills training is insufficient.
Financing or financial readiness	0/1	Addresses start-up capital, lending, projections, budgeting, or financial readiness.
Market or operating readiness	0/1	Addresses location, marketing, customers, sales, staffing, or operating systems.
Eligibility or requirements	0/1	States who may use the service or identifies a prerequisite for the principal action or program.
Cost or free status	0/1	States a fee, price, or free status for a principal action or assistance offer; no assumptions are made from public or nonprofit status.
Time or response expectation	0/1	States a duration, schedule, deadline, processing time, or response expectation for the principal action or program.
Topic-relevant human assistance	0/1	Offers topic-relevant assistance from staff, a mentor, coach, consultant, professional, or identified department contact; generic footer details are insufficient.
Multilingual page access	0/1	Provides a visible language selector, translated-page option, or substantive non-English content.



Indicator	Values	Decision rule
Business-related language assistance	0/1	Explicitly offers bilingual staff, interpretation, translation, or English-language assistance connected to business support.
Immigrant audience identified	0/1	Directly names immigrants, newcomers, refugees, or foreign-born entrepreneurs as an intended audience.
Documentation-sensitive referral	0/1	Explains or refers readers to qualified help for documentation or eligibility questions distinctive to some noncitizens; naming an SSN or EIN alone is insufficient.

Note. Codes: 0 = absent and 1 = present. First-step clarity also uses 2 for a concrete immediate action. Indicators are reported separately and are not summed into an overall score. Coding applies only to visible content on the focal page during the July 3-September 5, 2026 collection period, as confirmed by the September 5 recheck.