All Aboard:

Explanatory Tools to Talk About Children's Well-Being in Jacksonville

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A FrameWorks Metaphor Report

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I. Introduction

The research presented in this report was conducted by the FrameWorks Institute in partnership with the Northeast Florida Children's Mental Health Coalition and its grantees and partners, including the Jacksonville Children's Commission and the Partnership for Child Health. The research is part of an ongoing effort to engage the Jacksonville community with the System of Care Initiative, and help those working in the child and family services sectors to communicate more effectively about their work with the Jacksonville public and policymakers.

The research has focused on developing communications tools — specifically Explanatory Metaphors, Explanatory Chains and Values — that can help the public better understand how children's development and well-being can be supported effectively by the city. The end goal of the project is to build a unified message platform that advocates can use to build public support for programs and policies that promote child well-being in Jacksonville, and to help Jacksonville residents appreciate how the integration of systems affects children, as well as the families — and communities — of which they are part.

Following a unique multi-disciplinary approach to communications research (Strategic Frame Analysis®),[1] earlier stages of this project have detailed the Jacksonville public's understanding of the factors that shape children's well-being.[2] This research has focused on how people's thinking in Jacksonville is shaped by a shared set of assumptions and patterns of thinking — what anthropologists call "cultural models."[3] These shared assumptions allow individuals to make sense of new experiences and information they encounter. However, as part of their role in generating new understandings of unfamiliar concepts, cultural models can sometimes limit people's ability to think about new ideas in new ways, and can make some messages and potential solutions "hard to think." As described in those earlier reports, the Jacksonville public's cultural models are often at odds with how advocates and experts understand the factors that shape children's outcomes. For example, while experts are attuned to the importance of community-wide and population-level risk and protective factors, and to the role of public policy in addressing those factors, Jacksonville residents are largely unaccustomed to thinking about children's well-being from these broader vantage points. Furthermore, when asked directly to think about supports and services beyond the scope of the family or household, the public's default thinking is focused narrowly, and often exclusively, on schools, while the larger array of institutions and systems that support children and families remains largely invisible. Two additional understandings structure people's thinking in problematic ways: a *Separate Fates* cultural model that assumes the city's children and residents do not share a linked future together, and a *Fatalism* cultural model that renders people pessimistic about Jacksonville's capacity for meaningful change on behalf of its children, especially those living in poverty.

Responding to the need to address these dominant cultural models, subsequent FrameWorks research identified a set of communications tools from our nationwide research that were demonstrated to be effective in helping reorient how the Jacksonville public thinks about improving outcomes for the city's children. These include a suite of Explanatory Metaphors (*Levelness*, *Outcomes Scale*, and *Resource Grid*)

and Values (*Prevention/Ingenuity* and *Fairness Across Places*) that are described in greater detail in an earlier report.[4]

While these tools were tested and shown to be effective in addressing some of the public's problematic default cultural models, there remained a set of unaddressed challenges that required further research. To that end, FrameWorks conducted three phases of research to identify additional tools that could help shift public thinking beyond these problematic cultural models, and towards more productive ways of thinking about how best to support children's development across the city. Specifically, FrameWorks conducted research to develop and test three new communications tools:

1. A suite of *Values*.
2. An additional original *Explanatory Metaphor*.
3. An *Explanatory Chain*.

FrameWorks published the results of our Values research in an earlier report,[5] which identified three Values — *Civic Potential*, *Human Potential* and *Civic Responsibility* — that foster a greater sense of Jacksonville as a unified community coming together to help all of its children and youth. These Values were shown to be effective in reorienting people's thinking away from cultural models of *Individualism*, *Fatalism* and *Separate Fates*. They helped people tap into a set of shared, underlying aspirations for a more united Jacksonville in which all children and youth can thrive.

This report builds upon the first phase of Values research and discusses two subsequent phases of research, summarizing (1) the development of an additional Explanatory Metaphor that can be deployed in concert with these Values to challenge people's models of *Fatalism* and *Separate Fates*, as well as engender a solid understanding of Jacksonville's integrated system of services, or the System of Care Initiative; and (2) an Explanatory Chain that can be used to help people think about *how* and *why* Jacksonville's children are not experiencing the well-being and good outcomes they should, and what can be done to address this problem.

Taken together, the full body of tools and recommendations make up a larger story that is effective in communicating about — and increasing support for — a shared effort to improve the lives of children, youth and families across the city.

II. Research Overview

FrameWorks' researchers use methods from psychological anthropology and cognitive linguistics to understand the communications challenges presented by a given issue. In this research, FrameWorks identified a set of cultural models held by members of the Jacksonville public.[6] In brief, these models shape public thinking about the following important topics in the following ways:

- **Child development.** The process of child development is in a mental "black box," meaning that people do not know how children develop, or how a variety of social and environmental determinants of development lead to children's outcomes. If members of the public assume that children's development happens automatically, and are not aware of important biological and environmental factors, then they are not inclined to think that there are specific program and policy changes that can be made in Jacksonville to improve children's development and well-being in a noticeable and meaningful way.

- **Child mental health.** People equate children's mental health with personal control over emotions, and mental illness with genetic determinism. A lack of knowledge about how genetic conditions interact with environmental conditions to cause child mental health causes the public to believe that mental health challenges — as well as solutions — lie within the individual, rather than in community-wide efforts.

- **Family responsibility.** People hold parents and children almost exclusively responsible for child outcomes (the *Family Bubble*). The public's focus on the family as the center of all responsibility precludes any productive attention to population- and systems-level approaches to improving outcomes for children.

- **Separate vs. common fates.** People assume separate fates for children and residents from different parts of the city. The public's understanding that children who grow up in different areas of Jacksonville have different outcomes does not lead to a sense that these differences *matter* — the public is not attuned to the idea that the city's collective success depends on the positive development of *all* children.

- **Fatalism.** People are fatalistic about the possibility of improving outcomes for children across the city. When the public feels that poverty, crime and other problems in Jacksonville are inevitable features of life in the city, they are not inclined to think that investing in systems and institutions will yield any useful results or spark positive change.

- **Youth rights.** People see children "today" as too "entitled." The Jacksonville public has a strong cultural model of children as having *too many* rights, a belief that mutes attention to the responsibilities that the city has to ensure a healthy life for all children.

Upon generating a clearer understanding of these challenges, and the patterns of public thinking that support them, FrameWorks' task is to design specific framing tools — Values, Explanatory Metaphors and Explanatory Chains — to address them. A crucial part of the development of these tools is testing them to see whether they meet the goals identified.

In the following sections, we review earlier stages of research that laid the foundation for the current phases of work.

A. Prior Nationwide Research on Early Child Development Communications Tools

Many of the challenges outlined above are not unique to Jacksonville, and have been addressed in previous FrameWorks research that has tested the effectiveness of original explanatory tools for communicating about these issues. To explore whether these previously developed tools would be effective in addressing these challenges in the context of Jacksonville, FrameWorks researchers conducted a set of On-the-Street Interviews in Jacksonville in June 2013. The following tools were shown to be effective:[7]

> The *Levelness* Explanatory Metaphor elucidates the relationship of the child to his or her environment, promoting a better understanding of positive functioning as the goal of development, and making contextual interventions easier for people to understand and support.
>
> The *Outcomes Scale* Explanatory Metaphor bolsters thinking about how environments and community-level factors influence development and, in so doing, diminishes people's narrow focus on the *Family Bubble* — i.e., the location of all responsibility for problems and solutions within the family unit.
>
> The *Resource Grid* Explanatory Metaphor elicits support for equal access to resources, and promotes thinking about collective responsibility for children's outcomes.
>
> The combined Values of *Prevention* and *Ingenuity* promote engagement with the topic of improving children's well-being, and create a pragmatic orientation which diverts thinking away from fatalistic assumptions that "nothing can be done."
>
> The Value of *Fairness Across Places* elicits support for the idea that a child's access to resources should not be a function of where he or she lives. Research showed that this Value is particularly productive when deployed along with the *Outcomes Scale, Levelness* or *Resource Grid* Explanatory Metaphors.

Taken together, these tools address many of the key challenges identified in earlier stages of research. However, there are key communications challenges that remain unaddressed by this suite of tools. As the first step in addressing these issues, FrameWorks focused on identifying Values that could shift attitudes about children's issues in Jacksonville and increase support for proposed solutions.

B. Prior Research on Values

FrameWorks conducted large-scale, quantitative testing of a set of Values, evaluating their ability to motivate engagement, generate a sense that problems can be solved, and increase people's receptivity to solutions. This research is described in an earlier report.[8] The Values tested in this experiment were drawn from FrameWorks' research on successful children's advocacy, and from pilot testing of potential Values messages.[9] The following four Values were tested:

1. *Civic Potential*. This value promotes the idea that supporting children and families is crucial for Jacksonville to reach its full potential. The value frames the idea of potential in collective terms — as "our city's" potential.

2. *Human Potential*. This Value focuses on the need to invest in the city's children so they can reach their potential and contribute to the city down the road. The Value centers on the potential of *children*, with the collective benefit to the city as a secondary component.

3. *Collective Responsibility*. This Value focuses on Jacksonville's collective obligation to support children and their families.

4. *Pragmatism*. This Value asserts that Jacksonville must take common-sense, practical steps to fix the problems facing children and families.

This phase of testing found that the Value of *Potential* was highly effective. In addition, *Civic Potential* and *Human Potential* generated significant increases in productive thinking about policy initiatives (see Figure 1).[10]

Figure 1: The Effect of Value Frames on Attitudes and Solutions Support in Jacksonville
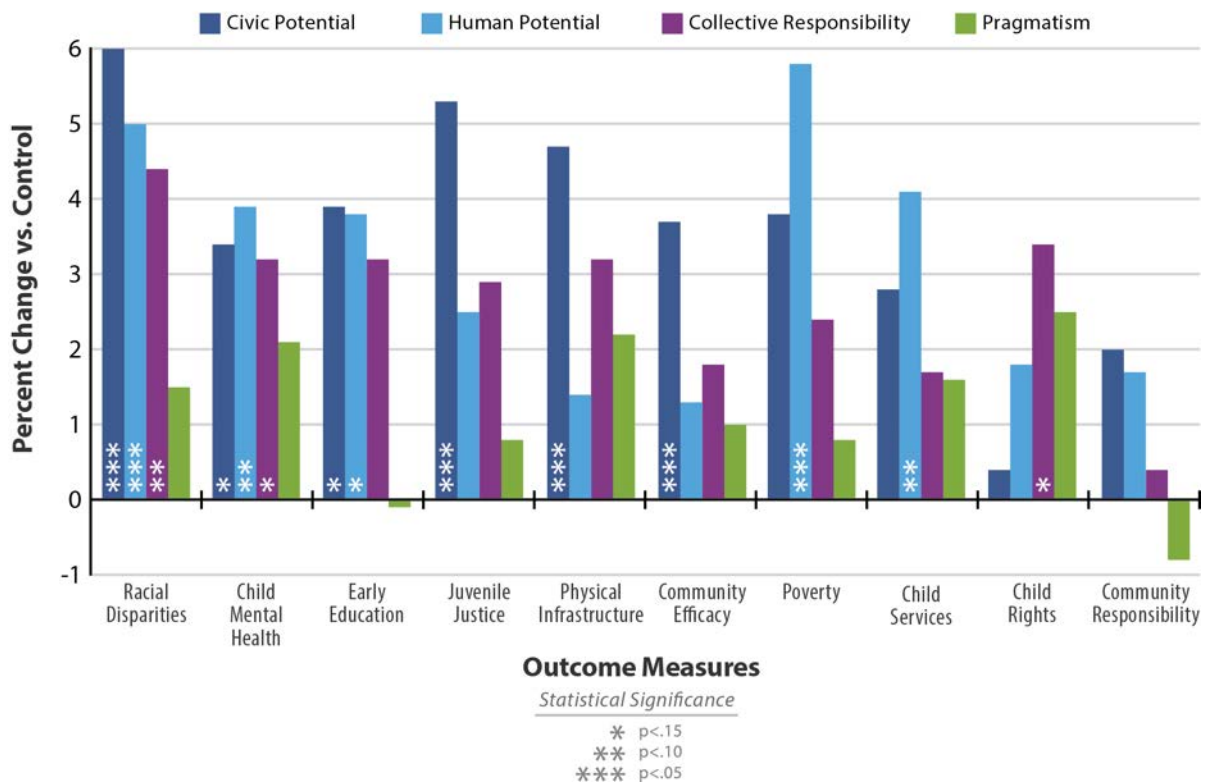
In spite of these strong results, Values did not succeed in shifting children's outcomes from a *private* to a *public* concern. Values also failed to highlight the importance of integrated public systems in improving outcomes for both children and the city, and could not help the public understand the System of Care Initiative in more productive, detailed ways. Additional communications tools and strategies are required to meet these important goals.

C. The Need for Explanatory Tools

Based on the results of this research, the remaining communications tasks were conceptualized as follows:

1. Help people to see the *integrated system of care* as a factor that shapes outcomes for children and the city.

2. Help build a common city identity that centers on a *shared concern* for the city's children.

3. Help people move beyond *fatalistic* thinking about Jacksonville's ability to face and address its challenges.

4. Help people see the need for children and youth to be *active participants* in the system of care.

To address these tasks, FrameWorks researchers developed and tested Explanatory Metaphors and Explanatory Chains. These subsequent phases of research are described below.

III. Explanatory Metaphors

What is an Explanatory Metaphor?

FrameWorks defines an Explanatory Metaphor as a research-informed, empirically tested analogy that makes a concept clear and understandable to people. The Explanatory Metaphor starts with something familiar to most people (e.g., an everyday object or process, a well-known location or event) and compares some of its familiar features with a concept that is less familiar or well understood. This way, people can leverage their understanding of the *familiar* concept to understand a *new* concept. Explanatory Metaphors can help people organize information into a clearer picture in their minds, and have the potential to make people better critical thinkers who are ultimately better situated to think about what should be done to address an issue.

FrameWorks has built a protocol for determining what an effective Explanatory Metaphor looks like, and how it behaves.[11] In brief, an effective Explanatory Metaphor:

1. Improves understanding of how a given phenomenon works;

2. Creates more robust, detailed and coherent discussions of a given concept;

3. Can be applied to think about how to solve or improve a situation;

4. Inoculates against dominant, but unproductive, patterns of thinking that people apply to understand the issue;

5. Can be shared easily among individuals through stories and conversations without major breakdowns or unproductive mutations;

6. Is self-correcting. When a breakdown in thinking does occur, people can re-deploy the metaphor in its original form to once again clarify key aspects of the issue.

Testing Explanatory Metaphors

FrameWorks researchers developed a set of 12 candidate Explanatory Metaphors designed to engage the Jacksonville public's thinking about the following: (1) the integrated system of supports and services in place in the city that assist children and families; (2) the active participation of children and adults in these systems; and (3) Jacksonville as a city of shared fates and collective purpose.

The Explanatory Metaphors were tested and refined in three phrases of research: (1) brief On-the-Street Interviews; (2) a large-scale, quantitative survey experiment; (3) Persistence Trials. A full description of the research methods can be found in the Appendix.

Findings from Explanatory Metaphor Research

Over the phases of the research process, one Explanatory Metaphor, *Solid Tracks for Development*, emerged as an effective tool for improving public understanding of — as well as support for — the Jacksonville *System of Care Initiative*. Below is an example of the metaphor.

> **Solid Tracks for Development.** *A safe and reliable railway system depends on having sturdy and well-built tracks that all trains can safely use to transport passengers and cargo. Likewise, Jacksonville needs a well-built system of tracks that supports all of its children as they develop and grow — things like good learning, health and recreation services. Fortunately, the city of Jacksonville is building a connected system that can act like solid tracks for children's development, so that its children — and all of us — can get to where we need to go. We all need to support the city as it expands and connects the tracks that its children learn, develop and move forward on. This way, Jacksonville can become a central hub for children's positive development.*

Below, we describe the effects of this framing tool.

***Solid Tracks for Development* resulted in the greatest productive shifts in public understanding.** As shown in Figure 2, *Solid Tracks for Development* outperformed the other three Explanatory Metaphors tested in the quantitative survey experiment by a wide margin and across all outcome measures. For example, relative to the control condition in which respondents read no metaphor or other message, *Solid Tracks for Development* led to a 6.1 percent increase in people's support for measures to address poverty. In other words, exposure to this Explanatory Metaphor led to 6.1 percent more agreement on questions like "We need to increase the amount of support the city of Jacksonville provides to low-income families so that all children can succeed." Across outcome measures, these productive increases were substantial, and statistically significant.

Figure 2: Effects of Metaphors Across Outcomes

Legend: Solid Tracks, 8th Bridge, 2nd River, Deep Bench

Statistical Significance
✳ p<.15
✳✳ p<.10
✳✳✳ p<.05
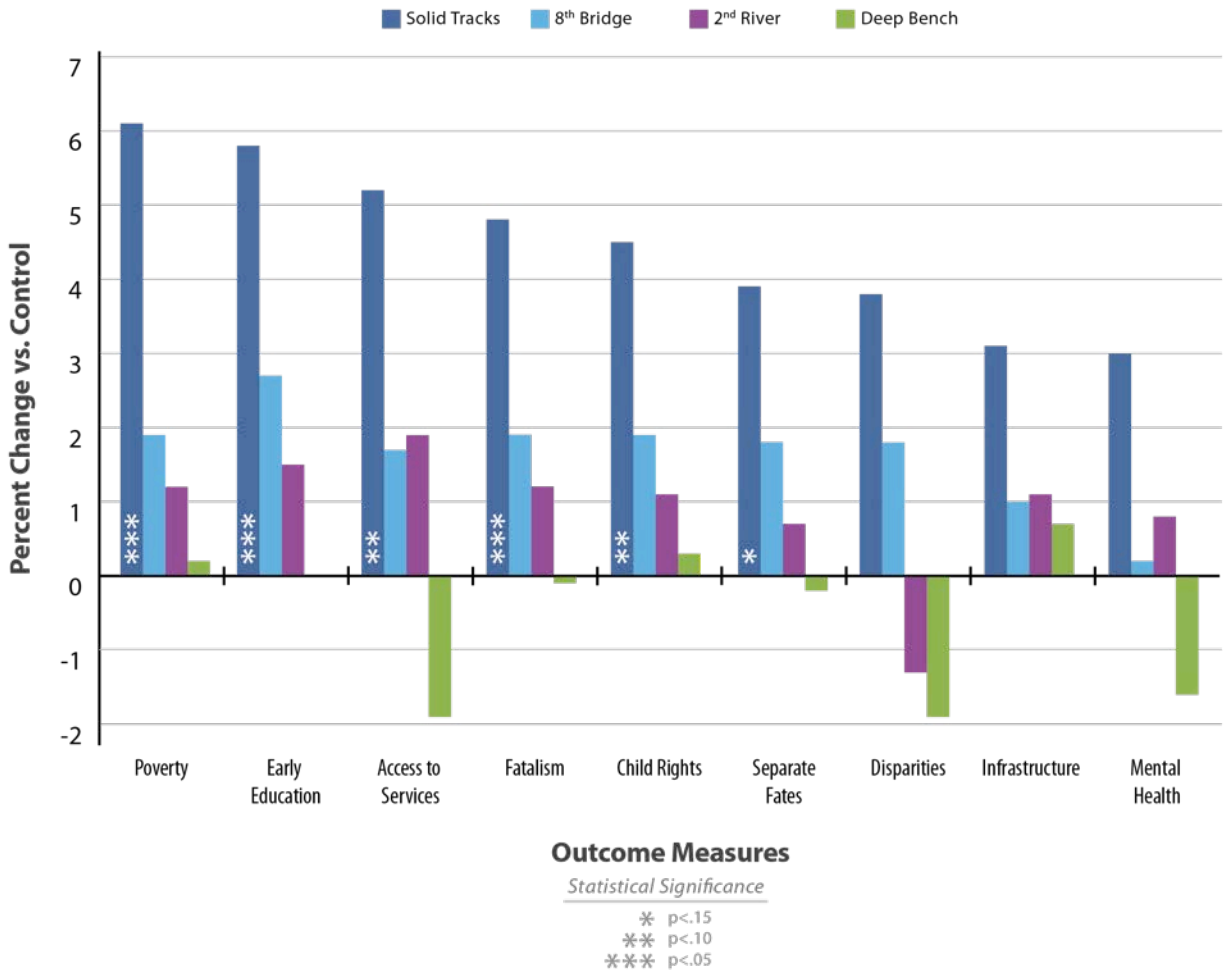
Survey respondents — answering the open-ended question "How did this idea make you think about the Jacksonville community?" — indicated that they were attuned to the idea of supporting low-income families for the benefit of *all* children. As one respondent wrote:[12]

> *I think it shows an effort by the city and its residents to realize we are all one big family and attempting a way to coordinate programs to ensure all citizens have a chance for on-track development.*

Solid Tracks for Development **shifts people from** *Separate Fates* **to** *Common Fates.* Figure 3 focuses specifically on respondents' perceptions of *Separate Fates*, or the idea that one Jacksonville child's outcomes do not affect another's. This idea was measured by questions such as "In order to improve education in Jacksonville, we need citywide reform rather than addressing each school one at a time." Results indicate that *Solid Tracks for Development* produces improvements in respondents' commitment to seeing Jacksonville as a community in which fates are *shared*, rather than a set of discrete neighborhoods and groups.

Figure 3: Effects of Metaphors on Perceptions of Collective Fate
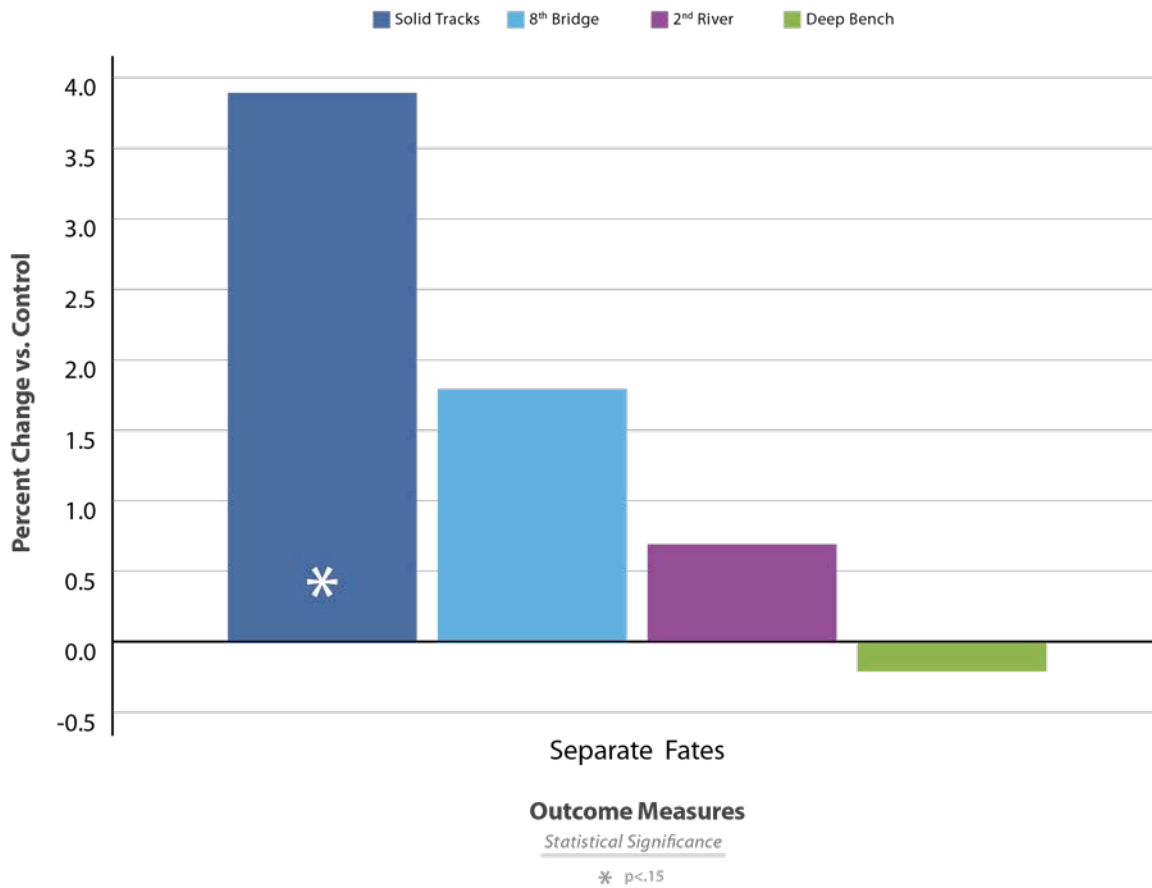
Survey respondents emphasized this theme. This can be seen in the quote above, in which the term *family* carries a sense of greater connection. This theme can also be observed in the following quotes from respondents:

> *Unfortunately, it is too easy to get off track and lose direction or purpose. We as a city need to narrow the focus and bring resources together and help our kids and less fortunate families get on track and stay on track. It doesn't just involve one group or one service, it involves them all, with each playing a part for a unified Jacksonville, where all residents become winners.*

> *I believe that it's saying that more focus and resources need to be used in bringing individual families together into communities, and those individual communities into a stronger Jacksonville as a whole.*

People productively apply the metaphor to talk about systems of supports. Participants successfully applied the idea of a track system as a way to think and talk differently about collective supports for children's development. Put another way, *Solid Tracks* pulled out new ways of thinking about a less familiar topic: the benefits of a well-connected, integrated system of supports for children and families. Several features of a train track system proved to be particularly useful in creating this productive alignment between expert messages and public thinking:

- *System integration is essential for positive outcomes.* The idea of *linkage across systems* was the strongest feature of the metaphor. People know that a good rail system involves a series of interconnected, linked tracks. Participants were able to apply this idea to think about the benefits of a linked system working on behalf of children. The *Tracks* metaphor was used to promote the idea that there is, or should be, an interconnected system of services and supports that work to promote the optimal growth of each child. As a survey respondent put it:

  > *Like a good transportation system, a good system must be afforded to all children to be the best that they can be.*

- *Coordination determines system effectiveness.* In a related vein, participants used the interconnected quality of a railway system, and the coordination of the trains that travel on it, to think productively about the importance of enhanced communication and coordination across institutions that support children and families. Survey respondents wrote:

  > *Jacksonville needs to develop a public educational system that runs like a well-maintained train.*

  > *This [idea] is a way to connect all services related to the betterment and good health of children in the Jacksonville area, through linking doctors, parents, teachers and associations for children together.*

The idea of "train tracks" highlights productive cultural models. While some cultural models present challenges for communicators to overcome, others can be very productive. *Solid Tracks for Development* was able to highlight these productive models. The metaphor engendered talk about the importance of *forward progress* — for children and for the city. The "moving forward, making progress" idea, which is naturally part of how a train runs on tracks, matches dominant cultural models that already structure people's thinking: (1) that life is a journey, (2) that *progress* is the main goal of that journey, and (3) that children need help and support on their journey. In other words, the metaphor highlights the positive ways in which people already value child development, and opens up people's thinking to how the System of Care fits into this understanding. As one participant in a Persistence Trial expressed the "life is a journey" model:

> *[We] can say the city of Jacksonville is trying to put stops in the railway together in order to make sure that kids are pointed in the right direction to get to that final destination.*

And as a survey respondent wrote about consistent progress:

> *I like the idea "on track" because you can see a beginning, a middle and a final destination. You can see how the idea of a track is a stable plan that will keep the idea of change and assistance a stable thing.*

The metaphor redirects people's thinking away from problematic cultural models. As described above, there are several dominant but problematic cultural models that structure how members of the public think about outcomes for children in Jacksonville. Notably, the *Solid Tracks for Development* metaphor demonstrated the ability to redirect thinking away from problematic default models and towards more productive patterns of thinking.

- *The metaphor counters the Family Bubble.* As would be expected, Persistence Trial participants regularly focused on parental responsibility, invoking the *Family Bubble* model. However, the metaphor refocused discussion on the broader level of city and public action and responsibility. The idea of a "system of tracks" evoked thoughts about place and movement that helped participants extend thinking beyond the home to thinking about the importance of other contextual factors. For example, one participant asserted that "The track always starts at home …" before going on to talk about community institutions as other key locations. Another wrote:

    > *It is time to take the children, give them quality early educational*
    > *opportunities, healthy nutrition and wellness. Parents should be a part of*
    > *every aspect of their child's lives. Major agencies and schools should have the*
    > *authority to help "at-risk" kids.*

- *The metaphor counters thinking about Separate Fates.* As described above, participants talked about tracks as being "one big system." Tracks were also discussed as connecting places to one another, and as keeping people unified in pursuit of a common goal. Discussions that started with the *Solid Tracks* metaphor generally stayed focused on building a system that serves *all* children, rather than different neighborhoods and groups. Because we do not typically think about rail systems as compartmentalized, but, rather, as connected and integrated, the image of a rail system seems to refocus thinking about Jacksonville in a less separated way.

- *The metaphor counters the idea that System = Schools.* The metaphor was effective in getting people to think and talk beyond the school to other kinds of services and supports — after-school programs, residency, nutritional supports, etc. The idea that there are multiple stations along a given set of tracks encouraged people to consider the multiple institutions and services that affect a child's life. For example:

    > *So all these train tracks — education, child care, health care — they all feed*
    > *from Grand Central Station, but you don't know when he or she might need*
    > *to make this decision as they launch out on their journey.*

- *The metaphor counters Fatalism.* Overall, the metaphor structured optimistic conversations about how to improve the systems that serve children. The deep cultural models of forward movement on the life journey, of "staying on track," of building solid foundations, and of coordination and linkage, all contributed to a "can-do" tone that appeared across the research phases. Notably,

participants did *not* talk about tracks in a confining or fatalistic way; that is, they did not talk about "the wrong side of the tracks" or about a track as a child's unchangeable destiny.

The metaphor is "sticky," and easily communicated. Research participants across all phases were very familiar with the idea and purpose of an integrated system of railway tracks, and the metaphor proved "sticky" — that is, it was easy for people to take up and pass along to others. The language of children being "on track" in their forward movement is already very common in our everyday discourse. As such, the metaphor struck people as familiar at a fundamental level, and therefore made it almost effortless to use in their own talk. Furthermore, once it was part of conversation it consistently created the effects described above. Participants repeatedly talked about getting kids "on the right track," not wanting to be "derailed," being concerned about improving what happens at "stops" and "stations," and creating good "hubs" that link parts of the system and allow for integration.

The metaphor could "self-correct." Self-correction refers to an Explanatory Metaphor's ability to "snap back" and return to productive use even after an aspect of the metaphor has been lost or changed. This is an important measure of an Explanatory Metaphor's strength because, once a metaphor is used as part of a communication strategy, it becomes part of public discourse, where its use will be beyond the control of the original communicator. Therefore, it is important that a concept have sufficient integrity to "self-correct" in conversation if certain features morph into less productive versions. *Solid Tracks* showed several examples of self-correction in the research. For example, in one Persistence Trial, a pair of participants did not use the metaphor prominently in their talk; even so, their "audience" in this interaction heard the general idea and reintroduced language and ideas from the metaphor in their talk.

The metaphor was used creatively. Participants frequently went "off script" after their initial exposure to the metaphor and generated new ideas, expanding the metaphor to talk about how the city should be supporting children and families. During Persistence Trials, for example, participants expanded the metaphor in the following ways:

- *Good tracks need to be built on "solid foundations."* People talked about the importance of the city "laying down a good foundation" — speaking about the systems and institutions the city has built, and needs to build, on behalf of its youth. The idea and language of "foundations" was strong, persistent and productive in discussions primed by the *Solid Tracks* metaphor.

- *Systems need "engineers."* Participants frequently spoke about the "engineers" who are needed to design and operate the system in order to help children stay on track and get to where they need to go. This was a productive way that the metaphor pushed people to assign responsibility to people other than the child's family — specifically to city leaders, policymakers and human service professionals.
- *We all need to "get on board."* This idea was used to discuss the importance of collective action and community participation in efforts to improve the systems that support children and families in Jacksonville.

***Solid Tracks for Development* elicited positive responses.** Finally, responses to open-ended questions in the quantitative experiment were assessed for the degree to which they were positive or negative about Jacksonville, public systems, children and other relevant issues. Respondents who read *Solid Tracks for Development* expressed more positive attitudes than did those who read the other Explanatory Metaphors, or were presented with the control condition (i.e., no metaphor).

> *This idea would put Jacksonville on the map in making quality of life a priority. This said, I believe it would make Jacksonville a more attractive place to live and conduct business.*

> *I believe this is a wonderful idea for our city.*

Overall, *Solid Tracks for Development* was effective at directing attitudes in more positive directions, and encouraging support for policy initiatives in line with the System of Care. One participant distilled the idea in the following way:

> *We have an opportunity to get our kids on the right track. And I think you need to invest in a system that has a centralized hub and equips families to deal with the interacting train tracks of this child's life as they move forward.*

IV. Explanatory Chains

What is an Explanatory Chain?

An Explanatory Chain helps the public understand the relationship between a problem's *cause* and its *effects*. By tracing causal connections, Explanatory Chains help the public better understand why a problem exists, and who or what is responsible for causing the problem. They also encourage reasoning about how to fix the problem, and who is responsible for doing so. Explanatory Chains have three basic parts:

1. *Initial factor.* This is the determinant, factor or event that produces the consequences described at the end of the Chain.

2. *Mediating factor.* The mediating factor explains how the initial factor *causes* the consequence. It fills in mechanism and process.[13]

3. *Final consequence.* The final part of an Explanatory Chain is an effect that the public will recognize as a problem that is caused by the initial factor via the mediating factor.

Explanatory Chains are designed to help people understand problems, how they arise and how they can be addressed.[13]

Testing Explanatory Chains

The goal of developing and testing Explanatory Chains was to determine whether this framing tool would direct people's thinking toward a fuller understanding of the challenges to children's well-being, and lead to more robust support of initiatives that would address these challenges. While the Explanatory Metaphors were developed to explain the importance of the System of Care Initiative, the Explanatory Chains were developed and tested for their ability to explain the causes of the problem, and illustrate how the System of Care Initiative addresses them.

FrameWorks' research team developed and empirically tested two Explanatory Chains.[14] The themes of these tools were *Cost & Coordination* (about why Jacksonville's children experience poor health outcomes, and how the System of Care Initiative aims to improve these outcomes) and *Youth Participation* (about how, if youth have an active voice in decisions that affect them, positive outcomes can be achieved).

The Explanatory Chains were tested and refined in two phases of research: (1) a large-scale survey, and (2) Persistence Trials. A full description of the research methods can be found in the Appendix.

Findings from Explanatory Chain Research

Across the two phases of research, the *Cost & Coordination* Explanatory Chain was demonstrated to be an effective tool for aligning public and expert thinking about the causes of the main challenges to children's well-being, and how best to improve outcomes for children in the city of Jacksonville. The following is an example of the *Cost & Coordination* Explanatory Chain.

> *Jacksonville's children have the worst health outcomes of any large city in Florida. One reason is that medical care and other health services are expensive, so many families can't afford them. In addition, Jacksonville is so spread out that services can be hard to get to, and doctors, counselors, schools and parents often don't have good ways to communicate with each other to make sure that children are getting the right services. Taken together, these cost, transportation and communication problems are a challenge to the health and well-being of many of Jacksonville's children. But Jacksonville has a plan to address these challenges.*

> *Community leaders in Jacksonville have adopted the* System of Care Initiative. *In this initiative, case managers help families address transportation and cost issues. They make sure that medical providers, counselors, schools and families communicate with each other to get children the best care possible. By building a system that is accessible and coordinated, and that takes the perspectives of diverse families and children into account, the city is improving outcomes for all of Jacksonville's children.*

Below, we describe the effects of this framing tool, which suggest positive changes to people's knowledge base about issues relevant to the System of Care Initiative.

The *Cost & Coordination* Chain increases people's knowledge about the System of Care Initiative. The *Cost & Coordination* Explanatory Chain increased general knowledge of coordination, integration of systems, and supports and services that are necessary to improve outcomes for children (although these effects did not reach conventional levels of statistical significance). The Explanatory Chain also showed promise in increasing knowledge about the importance of participation — or the importance of everyone being involved with, and participating in, Jacksonville's System of Care Initiative.

As survey respondents wrote:

> *System of Care Initiative is a program that has been developed by Jacksonville leaders to connect in-need families with services and programs to help them with health care. By doing so, families will be able to access these services in a more efficient way.*

> *System of Care Initiative has been created to work with community members, healthcare providers, schools and families to help children be/become healthier.*

Jacksonville children have relatively poor health outcomes. A new program called System of Care will provide a way to help families access health resources by providing assistance to resolve problems related to cost, transportation, etc.

The Explanatory Chain creates a productive sense of urgency. The presentation of the problem of poor health outcomes was an important part of the effectiveness of the Explanatory Chain. The fact that Jacksonville has *the worst health outcomes of any large city in Florida* was noted, and taken seriously, by research participants. Analysis showed that it was one of several important features of the tool that was driving positive results. There were two important factors that contributed to its impact:

- *This was new information to participants.* Participants were uniformly surprised to learn this information. As one participant noted, "I didn't know we were having a large problem." Thinking about this fact supplied a sense of urgency about the need to better address children's issues in the city. This sense of urgency was an important dimension of the effectiveness of the Explanatory Chain, but it is important to note that previous research shows that, on its own, this fact would not have been effective as a communications strategy. In fact, it may even be counterproductive if it is presented alone, without a corresponding sense that the issues have causes that *can be solved*.

- *The comparison built into the statistic helped to productively redirect thinking.* The comparative dimension of the statistic helped people to think at a system-wide level, beyond the *Family Bubble*. For example, one participant argued against the *Family Bubble* by reasoning that surely other cities share the problem of irresponsible parents, and yet they have better health outcomes than Jacksonville. Trying to explain why the city has such poor outcomes compared to other cities forced people's attention onto structural- and population-level features, rather than allowing it to remain focused on the failures of individuals. This is in line with previous FrameWorks research that found that the Value of *Fairness Across Places* is a powerful frame to help people think systematically about social problems and solutions.

The Explanatory Chain helps people move beyond *Fatalism*. In combination with the sense of urgency provided by the presentation of the problem, the mention of a *solution* was a highly effective part of the Explanatory Chain. The solution created a powerful sense that there was something that could be done to improve outcomes and, in this way, countered people's dominant fatalistic sense that Jacksonville's challenges are inevitable.

Survey respondents expressed this sense of hopefulness in response to questions about what Jacksonville could do to address its problems. In the following quote, a respondent notes that, while the challenges are serious, a "great start" to address them is possible:

That's tough to answer, as there is no quick fix for this, but having medical staff, teachers, counselors, parents and children communicate with one another is a great start, keeping the privacy of the children a priority.

And in this quote, a respondent clearly rejects fatalist thinking in favor of solutions:

> *Do not shove the problem under the table. Continue to seek resolutions.*

The Explanatory Chain promotes a productive understanding of causality. The causes of — and solutions to — children's bad health outcomes, as described in the Explanatory Chain, were maintained when research participants "taught" the chain to other Jacksonville residents during Persistence Trials. More specifically, participants maintained the major concepts of transportation, schools, health care and families as important factors. This is important because it suggests that, when people think about an explanation for bad health outcomes and what can be done to address these challenges, they adopt this new information with relative ease. For example, survey respondents wrote:

> *Jacksonville has the worst health care because of expenses and poor communication. Something needs to be done to help children receive better care.*

> *Too often the children cannot reach to services the city provides because of transportation.*

> *Jacksonville children are unhealthy because they cannot get the services they need. We are proposing to work with their parents and health care to change this.*

The Explanatory Chain helps people think about the importance of coordination. The Explanatory Chain was productive in encouraging thinking and discussion of the importance of system coordination in improving outcomes for Jacksonville. For example, participants brought up the idea of a "visiting nurse" who could treat children in schools, and occasionally check up on them and their parents at home. In their discussion of this example, people drew connections between the healthcare system, the school system, the home, and government officials in Jacksonville. Similarly, participants talked about the importance of the Department of Children and Families routinely checking on children living with older relatives, or in other potentially challenging or volatile situations. In discussing these examples, participants clearly emphasized the importance of systems coordination in improving outcomes. In addition, participants talked about the need for protocols to be in place so that children would not "fall through the cracks" and would, instead, be caught and supported by the system. These discussions of "protocols" involved a pervasive sense of the need for coordination.

Survey respondents expressed the idea of coordination, as well:

> *Coordinate the agencies that service the public, ALL of the public. We're tired of seeing the waste as most of the tax money is spent on those that least gain from it.*

> *Cross meetings with the appropriate agencies might help. Sharing of resources and ideas.*

In brief, the *Cost & Coordination* Explanatory Chain is an effective, accessible and useful way to enhance knowledge and understanding of the System of Care Initiative. The following visual shows two Persistence

Trial participants using the *Cost & Coordination* Explanatory Chain to explain the connections between problems and solutions.

Figure 4. Example of *Cost & Coordination* Explanatory Chain
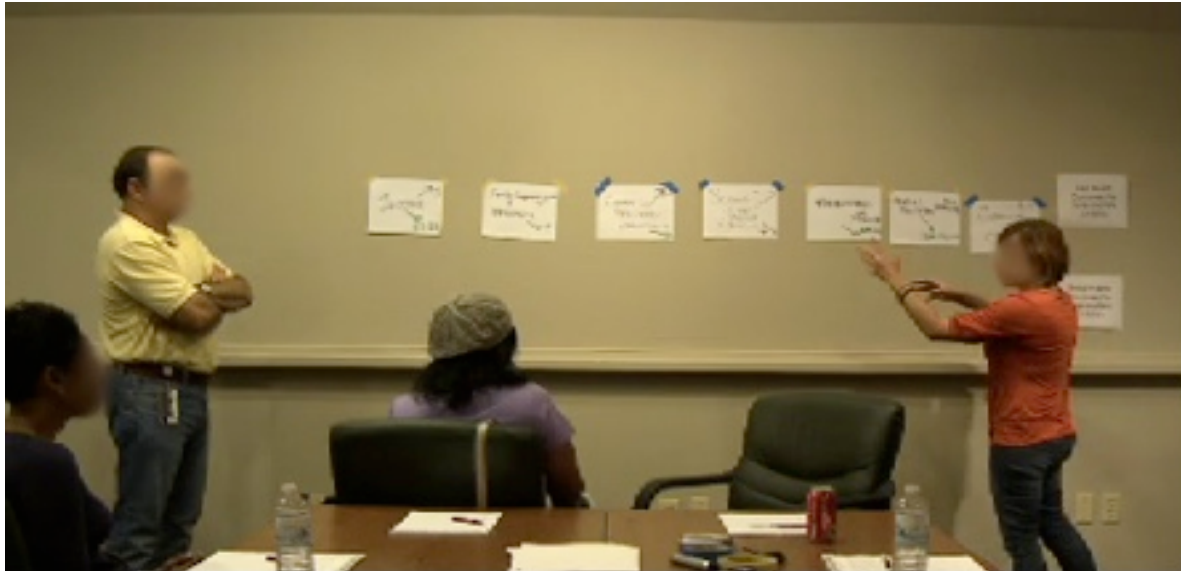
The participant finished her presentation by explaining:

> *If you look at all these components and put them together, how are they coordinated together? Can we see how they all come together? If they're just working independently of their own, that can lead to a bad health outcome. But if they are coordinated and they are this kind of cohesive picture, that can lead to a better outcome.*

V. Recommendations

Based on the findings described above, FrameWorks offers the *Solid Tracks for Development* Explanatory Metaphor and the *Cost & Coordination* Explanatory Chain as strategic frame elements that can be used to help communicate the value of an integrated system of supports for enhancing children's well-being in Jacksonville.

The following strategic recommendations will enhance the productivity of these tools:

Using the *Solid Tracks for Development* Explanatory Metaphor

- **Focus on the tracks to communicate the importance of support, stability and context in improving child outcomes.** Communicators should leverage the sticky idea of "helping children stay on track" by pointing people's attention to the importance of the tracks themselves. They should emphasize the *necessary support* and *solid foundation* features of the metaphor by deploying phrases like:

  > *As a city, we have to ensure that all children have a strong set of tracks to follow as they develop.*

- **Give examples of the System of Care Initiative, and use the metaphor to concretize and integrate these systems.** Our research found that people lack an understanding of the range of systems that support children and their families. Communicators should therefore identify parts of the System of Care Initiative in their messaging — early learning, foster care, health care, mental health, child care, etc. — and deploy the *Solid Tracks for Development* metaphor to link those components together as part of an integrated system. These dimensions of the system can be discussed as linked stops along a child's developmental path. Using the metaphor in this way leverages one of our deepest cultural models — the idea of "life as a journey," in which forward progression is the goal. Envisioning these various support systems as linked stops that help a child move forward is a highly effective strategy. For example:

  > *Jacksonville needs to keep our youth on track — making progress and moving forward, with stops along the way. A train needs a connected and coordinated system of tracks to travel smoothly and quickly to where it needs to go, and Jacksonville's youth need a connected and coordinated system of services working together — like health care, foster care, early learning, juvenile justice systems, and more — so that youth get the resources they need when they need them. Jacksonville's System of Care is a system of solid tracks for development, making sure that all the pieces are in place for youth to move forward in life.*

- **Emphasize multiple stops and forward progress to push people's thinking beyond the** *Family Bubble. Solid Tracks for Development* provides a way to move thinking beyond the idea that all responsibility rests with parents by emphasizing the importance of other factors that shape children's lives as they travel on the tracks. The fact that tracks extend forward and cover great distances, and that trains *require* tracks, helps move people's thinking beyond the household environment to other contexts that are important in shaping and improving outcomes. Communicators should leverage this feature of the metaphor, as in the following example:

  > *A train is crucial for transporting cargo and passengers from one stop to the next, but a train without tracks to travel on, and stations to stop at, doesn't move forward. So solid train tracks must be carefully coordinated and built by teams of experts in consultation with the community. For our youth to move forward in life, they too need solid tracks. With the help of specialists in child development, local leaders, and families, the city of Jacksonville is laying out these solid tracks: a coordinated system of services to ensure that all of Jacksonville's youth, and their families, can get where they want to go.*

- **Go beyond the schools to ensure that people think expansively about public systems.** It is important that communicators repeatedly reinforce the idea that there are other parts of the system (e.g., health care, housing support) to ensure that people do not focus exclusively on schools as the prototypical public institution. For example, in addition to the recommendations above, communicators should talk about different parts of the track system:

  > *Jacksonville is building solid tracks to support the development of the city's youth. Just as solid train tracks are made up of spikes, ties and rails to anchor the tracks, the solid tracks for development — Jacksonville's System of Care Initiative — are made up of the healthcare system, the juvenile justice system, housing support, the foster care system, the school system and other human services. All of these services need to be working together to ensure that our youth — and all of Jacksonville — move forward in life and reach our destinations.*

- **Use the idea and language of "getting on board."** This is a powerful cue for the idea that all residents of Jacksonville are part of the integrated track system, and share a common responsibility to help improve outcomes for youth, and the city as a whole. This collective entailment encourages people to think about a shared, not separate, fate — a city realizing its potential for its children.

  > *We all need to get on board in supporting our city as it builds, expands, connects and maintains the tracks that our youth need to learn, develop and move forward. This way, Jacksonville can become a central hub for children's positive development.*

Using the *Cost & Coordination* Explanatory Chain

- **Use the fact that Jacksonville has the worst health outcomes of any large city in Florida to create a sense of urgency and focus attention — but *always* follow this problem statement with well-framed discussions of solutions, and of the potential to improve outcomes.** In short, the urgency supplied by this health fact is powerful, but only if it is paired with an equally powerful sense of efficacy. People need to know that the problem is real, but that solutions exist, and things can be done to address the problem and improve outcomes. It is important that communicators not provoke fatalism with unframed facts — but, rather, that they spark optimism and solutions-thinking with Explanatory Chains.

- **Cause is key. Don't just describe; explain.** Research clearly showed that descriptions are much less effective than *causal* explanations. Communicators should make sure to not simply "describe" programs and systems, but to offer a "cause-and-effect" style of explanation. This is an important distinction — the explanatory aspects of the Chain accounts for much of the effectiveness of this tool.

- **Maintain the components and sequence of the Explanatory Chain.** Communicators should make sure to include both the explanation of the problem *and* the solution in each communicative event. *Communicators should not present a problem without a solution*, because this could easily trigger fatalistic thinking that impedes progress, and dampens support for innovative programs and policies. At the same time, the structure of the Explanatory Chain allows for flexibility. As stated above, communicators should expand upon any of the points in the chain as appropriate for their goals, and tailor the language as necessary. They should, however, make certain to maintain *causal* language *(because*, *leads to*, etc.) in their materials.

- **Develop and employ visual representations.** Because Explanatory Chains are somewhat complex, having a visual representation will help to facilitate uptake. Providing written materials, graphics or animations is an excellent way of employing and amplifying the effectiveness of this important frame element.

JAX's Past

JAX's Future
with Jacksonville's
System of Care Initiative

Our Challenges

Our Solutions

Costs – services are expensive	$	Costs – case managers help families manage costs
Transportation – services are spread out across the city and hard-to-reach places	🚌	Transportation – services are located closer together and made more convenient
Communication – doctors, counselors, schools, and parents can't communicate	💬	Communication – new systems make sure all service providers are coordinated

Poor Health Outcomes for Children in JAX

Good Health Outcomes for Children across JAX

- **Use both the Explanatory Metaphor and Explanatory Chain.** These two tools accomplish slightly different goals. In brief, research showed that *Solid Tracks for Development* helped people understand the *integrated system* of supports for youth and why it matters for the city, while the *Cost & Coordination* Explanatory Chain proved effective in helping people understand a problem's *causes*, and how these causes can be addressed through the System of Care. We therefore recommend that communicators deploy both of these tools in their messages. An example of this combination might look like:

> *Just as train tracks need to be solid to make sure that the trains can get to where they need to go — if the tracks aren't solid or are missing pieces, the trains can't run well — the tracks that support children as they move through life need to be solid tracks for development. Jacksonville's tracks have faced some challenges — sometimes the pieces aren't working together, or the tracks are too far apart and the trains derail. As a result, Jacksonville's children have the worst health outcomes of any large city in Florida these days. But, these tracks can be made more solid, and they can work together smoothly to let children and youth move forward in life — to stay on track. And in fact, Jacksonville's System of Care Initiative is designed to make sure*

children's tracks for development are solid, coordinated, reliable — and not missing any pieces. The System of Care builds solid tracks for children's development by taking into account the challenges faced by children, families and communities. These solid tracks are designed to ensure that all children have their medical, dental and behavioral health needs, as well as their educational and personal needs, identified and addressed through a coordinated system of care. Jacksonville has made great progress in building these solid tracks for children's development, which will reliably lead to improved health outcomes and a healthy life for all children.

These examples are simply samples of ideas that could be developed for future communications and campaigns. Communicators are encouraged to bring their creativity and expertise to bear in using the Explanatory Metaphor and Explanatory Chain in many different ways for many diverse audiences.

VI. Conclusion

Communicators in the field of child and family services in Jacksonville can benefit from using the tools presented above. The Explanatory Metaphor improves how the public understands the importance of interconnected systems, and the relevance of the wider community, in ensuring good outcomes for children. In addition, the Explanatory Chain can be used to increase knowledge about how certain current realities of life in Jacksonville cause negative health outcomes, and how systems of supports can give rise to better futures for all children. As described above, communicators should use their creativity in deploying these tools in service of their specific communication goals.

These new tools should be used with the Values and metaphors previously tested in Jacksonville to create new stories around the city's work to improve outcomes for children, and for the city more generally. This story has the ability to dramatically reframe understandings of how children's well-being works, why it is important, and what Jacksonville can do to improve it as a united community.

About the FrameWorks Institute

The FrameWorks Institute is an independent nonprofit organization founded in 1999 to advance science-based communications research and practice. The Institute conducts original, multi-method research to identify the communications strategies that will advance public understanding of social problems and improve public support for remedial policies. The Institute's work also includes teaching the nonprofit sector how to apply these science-based communications strategies in their work for social change. The Institute publishes its research and recommendations, as well as toolkits and other products for the nonprofit sector, at www.frameworksinstitute.org.

Please follow standard APA rules for citation, with FrameWorks Institute as publisher.

Fond, M., Lindland, E., Morgan, P., Simon, A., & Kendall-Taylor, N. (2015). *All aboard: Explanatory tools to talk about children's well-being in Jacksonville.* Washington, DC: FrameWorks Institute.

Appendix: Research Methods

A. Mapping The Gaps

In the first phase of this research process, FrameWorks employed an interview method called cultural models interviewing. Using a detailed interview guide, interviewers asked questions designed to uncover how average Jacksonville residents think about issues related to youth outcomes and well-being, as well as young people's participation in civic life and basic rights. These cultural models interviews reveal the cognitive "terrain" on a given issue by focusing on the implicit patterns of assumptions — or cultural models — which individuals employ to process incoming information about an issue. These patterns represent ways of making sense of information that could align well — or not — with various policy goals. To uncover the gaps in understanding on the target issue, the findings from cultural models interviews were held up to the untranslated expert story of children's issues in Jacksonville. FrameWorks calls this process "mapping the gaps."

B. The Methodological Approach to Identifying and Testing Explanatory Tools

Designing Explanatory Tools

After identifying the gaps in understanding, the next phase of the research process aimed to generate a set of candidate explanatory tools that were then empirically explored and tested in subsequent research phases.

The first focus of this design process is Explanatory Metaphors. The result of the design process is a list of both metaphorical domains, and multiple iterations of each category. FrameWorks' researchers generate a list of metaphor categories that represent existing conceptual understandings that can be recruited, as well as metaphorical language and concepts shared by the experts and the general public. They generate candidate metaphors that have the potential to address the gaps identified in earlier research, and can be easily visualized and incorporated into thinking about the issue under consideration.

FrameWorks researchers examine the *expected* public response to candidate metaphors, based on cultural models theory and existing FrameWorks research on cultural models that Americans employ in understanding children's issues. Researchers then use this analysis to review the metaphor categories, adding new possibilities and cutting others. At this stage, researchers also compare the candidate metaphors to the data from the initial cultural models interviews. Metaphor categories that contain elements or aspects of metaphors found to be counterproductive to the public's thinking about the topic are eliminated from the candidate list. Explanatory Metaphor categories containing elements of more productive cultural models are highlighted as particularly promising.

During the process of designing candidate Explanatory Metaphors, FrameWorks also assesses the metaphors' abilities to be incorporated into practice by journalists, advocates and practitioners. In some cases, this practical assessment has suggested that some candidate metaphors are too provocative or problematic to pass into the public discourse. These metaphors are removed from the working list. Researchers then begin to compose iterations of the metaphors on the list, which are then revised.

In addition to designing candidate metaphors, at this stage of the process FrameWorks' researchers also identified non-metaphorical causal explanation as a potentially effective tool for communicating about children's issues in Jacksonville. Researchers prepared iterations of Explanatory Chains on *Cost & Coordination* and *Youth Participation* to be tested subsequent to the completion of the early metaphor research.

Testing Explanatory Tools: Three Tests of Effectiveness

Test 1: On-the-Street Interviews

As the initial opportunity to test candidate Explanatory Metaphors, On-the-Street Interviews present an ideal opportunity to gather empirical data on the effectiveness of candidate Explanatory Metaphors: which specific elements of the metaphors are functioning well, and which aspects are less successful in clarifying concepts and shifting perspectives.

The metaphors are written up as "iterations," paragraph-long presentations that cue the listener/reader to two domains of meaning, one that is typically referred to as the "source," and the other as the "target." In the metaphorical statement "encyclopedias are goldmines of information," the source domain of meaning is "goldmine" and the target is "encyclopedias." In FrameWorks' terms, "encyclopedias" is the target because it is the object or process that the application of knowledge about goldmines is meant to illuminate.

In March and April 2014, researchers tested the effectiveness of these metaphors in On-the-Street Interviews with 72 residents of Jacksonville. Participants were recruited in various neighborhoods of Jacksonville and were diverse in age, ethnicity, gender and political affiliation. (However, the sample is not meant to be representative. Although we are not concerned with the particular nuances in how individuals of different groups respond to, and work with, the Explanatory Metaphors tested in these interviews, we recognize the importance of between-group variation and take up this interest in quantitative testing of Explanatory Metaphors. There, the virtues of quantitative sampling techniques can effectively and appropriately address issues of representation and across-group variation.)

All informants signed written consent and release forms, and interviews were video- and audio-recorded by a professional videographer. Data from the interviews were used to winnow and refine categories, as well as to refine the individual executions of metaphors within categories.

FrameWorks had the following goals in designing and conducting On-the-Street Interviews: (1) identify particularly promising Explanatory Metaphor categories, (2) refine those categories with more mixed results, and (3) eliminate highly problematic categories in which the underlying *concept* created problems

that could not be overcome by refining existing executions or designing new ones. FrameWorks' approach to this winnowing process is highly conservative, to assure that only the most unproductive categories — those beyond repair — are eliminated.

More specifically, interviews were designed to gather data that could be analyzed to answer the following questions:

1. Did the informants *understand* the Explanatory Metaphor?

2. Did they *apply* the Explanatory Metaphor to talk about children's issues in Jacksonville in productive ways?

3. Did the Explanatory Metaphor *shift* discussions away from the dominant thought patterns that characterized the initial responses?

4. Did exposure to the Explanatory Metaphor *lead to more articulate answers and robust, fully developed conversations* of issues that participants had problems discussing prior to being exposed to the metaphor?

Test 2: Quantitative Experimental Research

After analyzing On-the-Street Interview data, FrameWorks subjected the refined set of Explanatory Metaphors, as well as Explanatory Chains and descriptions, to two separate online quantitative experiments. The overarching goal of these experiments was to gather statistically meaningful data on these tools' effectiveness, which provided an empirical basis for selecting tools that were most successful relative to a set of theoretically-driven outcome measures.

In July and August 2014, FrameWorks conducted the surveys, which measured the performance of four candidate Explanatory Metaphors, two Explanatory Chains, two descriptions and a control, in relation to a set of outcome measures. In each experiment, Jacksonville-area residents were surveyed (650 respondents in the metaphor experiment, 600 respondents in the Explanatory Chain experiment), and data were weighted on the basis of gender, age, race, education and party identification to ensure that the sample was representative.

Experimental Design
Following exposure to one of four metaphor "treatments" — paragraph-long iterations of candidate metaphors — participants answered a series of questions designed to measure a set of theoretically-based outcomes. The same procedure and outcome measures were used for the Explanatory Chains experiment with four treatments.

Treatments
In total, four specific Explanatory Metaphor iterations, two Explanatory Chain iterations and two description iterations were tested. Each treatment consisted of a paragraph, as in the following example of *Solid Tracks for Development*:

A safe and reliable railway system depends on having sturdy and well-built tracks that all trains can safely use to transport passengers and cargo. Likewise, Jacksonville needs a well-built system that supports all of its children as they develop and grow — things like good learning, health and recreation services. Fortunately, the city of Jacksonville is building a connected system that can act like solid tracks for children's development, so children — and all of us — can go where we need to go. We all need to support the city as it expands and connects the tracks that its children learn, develop and move forward on. This way, Jacksonville will become a central hub for children's positive development.

Each treatment was designed to be roughly equal in length and similar in structure, to ensure (as much as possible) that any differences in effect were due to differences among the framing elements themselves, and not to some unintended confounding variable.

Outcome Measures
After receiving the treatment paragraph, participants were asked a set of multiple-choice questions and a set of agree/disagree policy scales.

Respondents were asked questions such as the following two examples:

1. What is the best way to describe how the system of services for children and families in Jacksonville should work?
    a. Agencies should coordinate their efforts to serve children and families across all areas of life.
    b. Agencies should be separate from each other so that they can each address particular needs or issues independently.
    c. I don't know enough to say anything about Jacksonville's services for children and families.
2. What can we do to address problems with children's mental health in Jacksonville?
    a. A lot can be done — we can make sure all Jacksonville's children have access to important mental health services.
    b. Not much can be done — some children can be helped by their parents and their families.
    c. Nothing can be done — it is impossible to provide access to mental health services to all children in Jacksonville.

Open-Ended Questions
In the two experiments, respondents were presented with three open-ended questions. First was an unaided recall question ("In one or two sentences, please summarize what you have just read"), and at the end of the survey were two open-ended questions asked to provide a more nuanced picture of the patterns of thinking that the explanatory tools provoked. For the metaphor experiment:

1. How did this idea (called <metaphor title>) make you think about the Jacksonville community? In your own words, how would you use this idea to describe Jacksonville?

2. What do you think this idea (<metaphor title>) says about what we should do in Jacksonville?

For the Explanatory Chain experiment:

1. In your own words, please explain why Jacksonville's children are not experiencing the well-being they should.

2. What do you think we should do in Jacksonville to address this problem?

Control

A control condition was included in each experiment. In this condition, participants were not presented with any messages; rather, the same set of closed-ended outcome measures was presented after respondents were asked to "Please answer the following questions to the best of your ability."

In the end, experimental data were used to identify two tools that were effective and promising: the metaphor *Solid Tracks for Development* and the *Cost & Coordination* Explanatory Chain. These tools were then taken into a final stage of empirical testing.

Test 3: Persistence Trials

After using quantitative data to select effective metaphors, FrameWorks sometimes conducts Persistence Trials with metaphors to answer two general research questions: (1) *can* and *do* participants transmit the Explanatory Metaphor to other participants with a reasonable degree of fidelity? and (2) *how* do participants transmit the Explanatory Metaphor? In other words, the method examines how well the Explanatory Metaphors hold up when being "passed" between individuals, and how participants use and incorporate the metaphors in explanation to other participants.

In this study, FrameWorks researchers also tested Explanatory Chains in the Persistence Trials. The description of the method that follows refers to Explanatory Metaphors, but the process for Explanatory Chains is largely the same, with the single difference highlighted in the description below.

Participants

In October 2014, the most promising Explanatory Tools were tested in five Persistence Trials, involving a total of 30 Jacksonville residents. Participants were recruited through a professional marketing firm, using a screening process developed by FrameWorks and employed in past FrameWorks research. They were recruited from various neighborhoods of Jacksonville and were diverse in age, ethnicity, gender and political affiliation.

The Persistence Trial

A Persistence Trial begins with two participants. The researcher presents one of the candidate Explanatory Metaphors and asks the two participants a series of open-ended questions designed to gauge their understanding of the Explanatory Metaphor and their ability to apply the model in discussing the target domain (here, coordinating a system of care for Jacksonville's children). For example, the researcher asked how the participants understood the Explanatory Metaphor, then probed how well they could use it to talk about what Jacksonville needs to do to improve outcomes for children. Questions and analysis were also

designed to locate any terms or ideas in the execution of the Explanatory Metaphor that participants had difficulty with, or explicitly recognized as problematic.

After 15 to 20 minutes of discussion between the two initial participants (Generation 1) and the researcher, Generation 1 was informed that they would be teaching the Explanatory Metaphor to another pair of participants (Generation 2). Generation 1 was given five minutes to design a way of presenting the Explanatory Metaphor, after which they had five minutes to present it to Generation 2.

The method for testing the Explanatory Chains was slightly different, in that the participants were given more explicit instruction on how to present the Explanatory Chain. Participants were told the following by the researcher:

> What you're going to do next is *teach* these explanations to another couple of people who are going to be coming in momentarily. They haven't heard any of this, so this will all be new to them. To facilitate your teaching, I've attached two pieces of paper to the wall — one representing poor health outcomes for the city's children, the other representing good health outcomes. I want you to build two explanations on the wall, using pieces of paper like links in a chain, which explain each of those outcomes. So on the top, assemble a chain of papers with factors that, taken together, result in bad health outcomes for children. And beneath it, do the same with a chain of factors that lead to good health outcomes. *Your goal is for the next two people who come in to understand each of these Explanatory Chains that you read about on the paper and that we talked over.*

Generation 2 then had five to 10 minutes to ask Generation 1 questions about the presentation. During this time, the interviewer generally allowed dialogue to unfold naturally between the two groups but periodically probed for additional information on ideas that emerged.

Generation 1 then left the room and the interviewer asked Generation 2 an additional set of questions designed to elicit their understanding of the Explanatory Metaphor and their ability to apply the concept. This questioning lasted for approximately 10 minutes, at which point Generation 2 was informed that they would be "teaching" the idea to two new participants (Generation 3). Generation 2 had five minutes to plan their presentation, after which Generation 3 entered the room and the two groups went through the same steps and questions as described above.

A Persistence Trial ends when Generation 1 returns to the room. Generation 3 teaches the tool to Generation 1 (without being told that Generation 1 is already familiar with it), and they are encouraged to debrief with Generation 1 on the direction the metaphor or chain has taken. The researcher then reads the original paragraph-long iteration and asks questions about how the tool changed in its use.

Analysis
In analyzing data from Persistence Trials, FrameWorks sought to answer the following specific questions in relation to each explanatory tool.

A. Were participants able to *apply* the Explanatory Tool; and, more specifically, what were the ways in which they applied it?

B. Was the Explanatory Tool *communicable*? Were each Generation's presentations of the Explanatory Tool faithful to the initial model presented by the researcher? How did the groups' presentation of the model differ from the researcher's presentation (e.g., did they use different language, use different ideas related to the tool, emphasize different entailments, etc.)?

C. Did the Explanatory Tool *inoculate* against dominant default cultural models? That is, did it prevent discussions from falling back to the dominant unproductive cultural models? Furthermore, if one of these cultural models did become active, could the Explanatory Tool prevent the discussion from veering narrowly in these perceptual directions? (This question is more relevant to the Explanatory Metaphor.)

D. Did the Explanatory Tool *self-correct*? That is, if one Generation's presentation was not faithful to the original Explanatory Tool, or left out a key component, did the ensuing Generation's interpretation and/or presentation self-correct?

E. What specific *language* did the groups use in discussing the model? Was there language that participants used that was not included in the original execution of the Explanatory Tool?

Endnotes

1 For more about Strategic Frame Analysis®, see http://www.frameworksinstitute.org/sfa-overview.html.

2 See Lindland, E., & Kendall-Taylor, N. (2013). *"If you've got a good harness on your kids …:" Models of child well-being and learning among Jacksonville residents.* Washington, DC: FrameWorks Institute; Haydon, A., Lindland, E., & Volmert, A. (2014). *Stuck in a tale of two cities: Mapping the gaps on child development and well-being.* A FrameWorks research report. Washington, DC: FrameWorks Institute.

3 Quinn, N., & Holland, D. (1987). Culture and cognition. In D. Holland & N. Quinn (Eds.), *Cultural models in language and thought* (pp. 3-40). Cambridge, MA: Cambridge University Press.

4 Haydon, A., Lindland, E., & Volmert, A. (2014). *Stuck in a tale of two cities: Mapping the gaps on child development and well-being.* A FrameWorks research report. Washington, DC: FrameWorks Institute.

5 Simon, A., Volmert, A., & Kendall-Taylor, N. (2014). *The potency of potential: Values to bring Jacksonville together to support children.* A FrameWorks research report. Washington DC: FrameWorks Institute.

6 Lindland, E., & Kendall-Taylor, N. (2013). *"If you've got a good harness on your kids …:" Models of child well-being and learning among Jacksonville residents.* Washington, DC: FrameWorks Institute; Haydon, A., Lindland, E., & Volmert, A. (2014). *Stuck in a tale of two cities: Mapping the gaps on child development and well-being.* A FrameWorks research report. Washington, DC: FrameWorks Institute.

7 See Haydon, A., Lindland, E., & Volmert, A. (2014). *Stuck in a tale of two cities: Mapping the gaps on child development and well-being.* A FrameWorks research report. Washington, DC: FrameWorks Institute. For an additional review of this research, see Bales, S.N. (Ed.). (2013). *Talking child well-being and public health in Jacksonville: A FrameWorks MessageMemo.* Washington, DC: FrameWorks Institute.

8 Simon, A., Volmert, A., & Kendall-Taylor, N. (2014). *The potency of potential: Values to bring Jacksonville together to support children.* Washington, DC: FrameWorks Institute.

9 See additional resources at: http://frameworksinstitute.org/children.html.

10 For a complete review of the results, see Simon, A., Volmert, A., & Kendall-Taylor, N. (2014). *The potency of potential: Values to bring Jacksonville together to support children.* Washington, DC: FrameWorks Institute.

11 Kendall-Taylor, N. (2010). *An empirical simplifying models research process: Theory and method.* Washington, DC: FrameWorks Institute.

12 Note that all research participant quotes presented in this report have been lightly edited to remove typos (written) or enhance clarity (spoken).

13 For more on Explanatory Chains, see Aubrun, A., & Grady, J. (2005). *Strengthening advocacy by explaining "causal sequences."* Washington, DC: FrameWorks Institute. Available at http://www.frameworksinstitute.org/assets/files/eZines/causal_sequences_ezine.pdf.

14 Candidate Explanatory Chains were tested using approaches and methods similar to the ones employed to test metaphors. These methods included: (1) a quantitative survey experiment, in which Explanatory Chains were tested against a null-message control condition and "Descriptions," or versions of the Explanatory Chains that did not contain *causal* language and links; (2) Persistence Trials, in which pairs of participants were tasked with "teaching" the Explanatory Chain to others. Both methods are described in further detail in the Appendix.