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but may not provide as representative a viewpoint across all states. Beyond these two sources, much of the information available regarding FDS practices stems from anecdotal accounts, media articles, and scholarly arguments about the various constitutional, ethical, and practical implications of its use. Little empirical research exists to document the policies and practices, explore how the justice system operates in practice with FDS cases, or understand case-level outcomes of FDS. To begin to fill these knowledge gaps and provide more information on this emerging practice, this article describes the results of the National Survey of CODIS Laboratories which collected systematic data on lab practices related to FDS and PM.

2. Methods

The Study of Familial DNA Searching was a mixed-methods study conducted by ICF and funded by the National Institute of Justice. The study examined the scope and practices of FDS in the United States through multiple components: (1) two expert roundtables with diverse stakeholders, (2) a legislative and policy review, (3) a national survey, (4) intensive case studies of four states, and (5) an econometric analysis of the cost implications of using FDS. This article shares findings from the National Survey of CODIS Laboratories, a survey of state and local CODIS laboratories to learn about key considerations and varied practices related to FDS and PM.

2.1 Instrument

The survey instrument was developed in consultation with the project's expert roundtable members after an in-depth review of scholarly literature, existing surveys, and legislation and agency policies. The survey mode was primarily on-line with hard-copy versions of the survey available upon request. The instrument used branching questions and had 28-54 questions (the exact number was dependent on the branching structure in response to the respondent's earlier answers). It included the following topics: lab/respondent background, legislation and policies, scope of using FDS and/or PM, perceptions and opinions of FDS and PM (including benefits and concerns), and specific practices related to FDS and PM (e.g., eligibility criteria, lineage testing protocols). We chose to include questions about PM because these two techniques can be used for similar purposes, and practitioners and others in the field sometimes experience confusion about the distinction between these two practices. The survey provided the following definitions to help ensure the use of common terminology when completing the survey:

Familial DNA searching: A *deliberate* search of a DNA database using specialized software (separate from CODIS) to detect and statistically rank a list of potential candidates in the DNA database who may be close biological relatives (e.g., parent, child, sibling) to the unknown individual contributing the evidence DNA profile, combined with lineage testing to confirm or refute biological relatedness.

Partial matching: A moderate stringency search of a DNA database using the routine search parameters within CODIS that results in one or more partial matches between single-source and non-degraded DNA profiles that share at least one allele at each locus, indicating a potential familial relationship between the known individual in the DNA database and the unknown individual contributing the evidence DNA profile. *Disclosing or proceeding with* a partial match would be to use information learned through partial matching in an investigation.

Lineage testing: Additional genetic testing, such as Y-STR and mtDNA analysis, used to confirm or refute biological relatedness between the known individual in the DNA database and the unknown individual contributing the evidence DNA. Y-STR analysis is the examination of STR patterns specific to the Y-Chromosome that is used to determine paternally derived relatedness among DNA profiles, whereas mtDNA is found in the mitochondria of cells and is used to determine maternally derived relatedness.

