

The Basics: An Evaluation
Focused on Basics Insights Text Messaging

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Introduction

This evaluation provides evidence of the efficacy of The Basics Strategy, an initiative designed to engage and advise families and other caregivers on how to support child development from birth through age 5. With the goal of impacting whole communities, The Basics Inc., a nonprofit organization, leads a network of local community “backbone” organizations in the US and abroad. It provides those communities with tools and guidance as they collaborate with local partners to encourage caregiving practices—encapsulated by The Basics Principles—that previous research has shown to be associated with positive cognitive and behavioral development.

This summary report pertains to Basics Insights text messaging, one of The Basics offerings, which has been piloted for the past few years. Two clear areas of positive impact emerge from surveys of caregivers who have signed up to receive the twice weekly messaging.

First, the evidence suggests that Basics Insights is effective in changing behaviors among caregivers during the first 3.5 months of receiving the messages, specifically by encouraging more frequent behavior (or more frequent adult-child interactions) known to be favorably associated with healthy child development. (See: [The Science Behind the Basics Principles.](#))

Second, among families who have received the messages for at least six months and whose children are at least 18-months old, the evidence suggests that more frequent usage of these principles correlates with more favorable reported child skills and behaviors. We interpret this pattern in the data as a likely indicator that Basics Insights increases use of research-validated caregiving behaviors, thereby accelerating the pace at which children exhibit developmentally important capabilities.

As a low-cost approach being deployed directly to caregivers and families, this evidence suggests that larger-scale implementation and evaluation of Basics Insights text messaging as a component of The Basics broader strategy is both appropriate and likely to be advantageous.

Data

The analysis that supports these high-level conclusions utilizes survey data collected as part of established processes by The Basics Inc., approved for human subjects research by Solutions IRB.

An initial survey to set baseline information is given immediately after individuals register to receive the messages. A follow-up is given 3.5 months later to capture evidence of take-up of The Basics Principles, as measured by changes in reported caregiving practices. The core analysis of take-up in this paper based on responses from 691 respondents who completed both the baseline and 3.5-month follow-up surveys and are not excluded, as others were, because of failure to include their phone number on the 3.5-month survey. The latter is important because the phone number enables matching the initial and 3.5-month surveys for any given respondent. Findings are also shown below for the larger sample of 5,109 respondents who answered the initial survey, the 3.5-month survey, or both.



A third survey, The Basics Parental Assessment of Child Developmental Status (PACDS), is used to assess child development. It is administered using an online survey. Parents receive invitations by text after they have received Basics Insights messages for at least six months and their child is at least 18 months of age. The survey was conducted for the first time in the spring of 2023 and this report is the first analysis of the data.

The response rates are 38 percent on the baseline survey and 12 percent of eligible users on the 3.5-month follow-up and PACDS surveys. The latter response rate is typical when a survey invitation is delivered via text message.

Findings for Parenting Behaviors

The relationship between child age and parenting behaviors associated with The Basics Principles is shown in Figure 1. The bottom line on the diagram represents baseline responses, while top line represents responses after the parent has a few months to incorporate ideas from the texts into their caregiving practices, as measured on the 3.5-month follow-up questionnaire.

The survey index used in Figures 1 and 2 is a composite of the following forced-choice items.

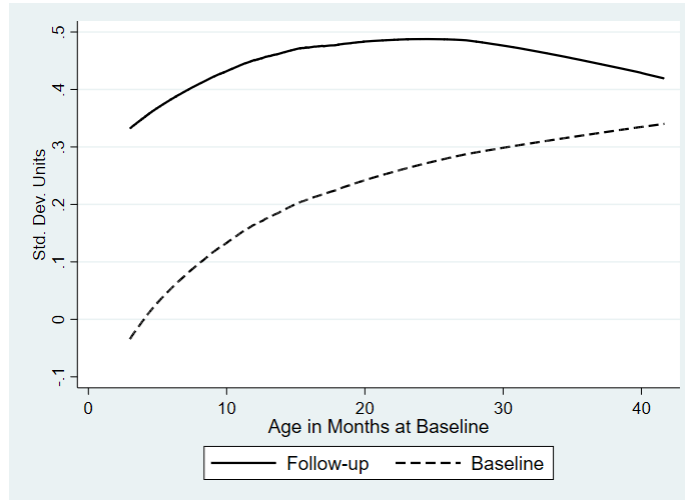
“In the past week, how often did you:

- *hug and cuddle with your child?”*
- *talk to your child about feelings/their feelings?”*
- *talk to your child about numbers or count objects?”*
- *play with your child?”*
- *read or look at books together?”*

Figure 1 displays the greatest differences between the baseline and follow-up curves when children are youngest, indicating that Basics Insights messages induce parents to apply The Basics Principles earlier than if they had never enrolled. Analyses not shown indicate that the vertical distance between the curves narrows the most as children get older for parents with 4 or more years of college, which is consistent with greater impacts among parents with fewer years of schooling.

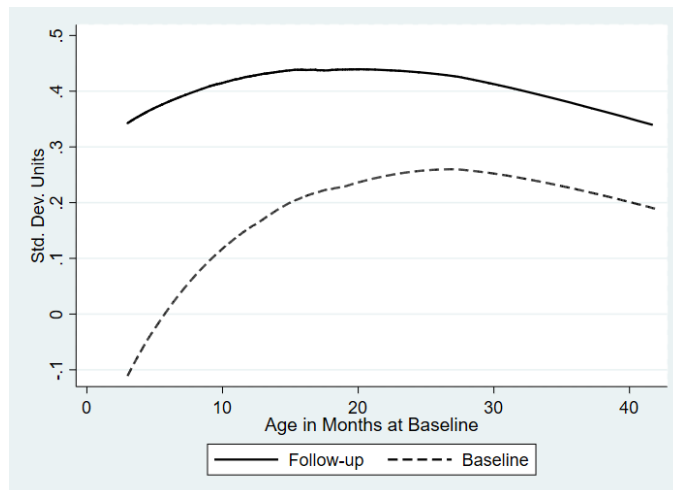
Figure 2 shows that the pattern shown on Figure 1 remains when the full sample is used of individuals who responded to the baseline, the follow-up, or both.

Figure 1. Caregiving Practices, by Child Age, At Baseline and 3.5-Month Follow-Up
 (For 691 subscribers who responded to both baseline and follow-up surveys)



Note: Lines estimated using a smoothed trend fit using a fractional polynomial, for 691 respondents who answered both the baseline and follow-up surveys. The trend line shown is for children aged 3 months to 42 months. Children younger than 3-months are too young for some of the parenting practices measured and fewer than 5 percent of respondents enrolled when children were older than 40 months old, making top end estimates less statistically reliable. The standard deviation for scaling both lines is 0.71 on a scale of 2 to 5 from the full-sample baseline distribution.

Figure 2. Same as Figure 1 but using the full sample, by adding in respondents to only the baseline or only the follow-up.



Note: The baseline curve in Figure 2 is based on 4,331 observations and the follow-up curve is based on 1,469 respondents. The overlap comprises the 691 respondents represented on Figure 1, who answered both surveys and included their phone number (which was optional but enables matching their baseline and follow-up responses). The standard deviation for scaling both lines is 0.71 on a scale of 2 to 5 from the full-sample baseline distribution.

The vertical distances between the lines in Figure 2 are larger than on Figure 1. This is likely because respondents to the follow-up survey had slightly more years of schooling, and parents' years of schooling correlates with caregiving. Nonetheless, the similarity between Figures 1 and 2 is clear. Both show more use of practices related to The Basics Principles at 3.5 months—after respondents have been receiving the text messages—than at baseline.

Table 1 conveys the same general finding as Figure 1 — in other words, that receipt of Basics Insights predicts more frequent use of practices related to The Principles. For the same 691 individuals as Figure 1, Table 1 shows the magnitude and statistical significance of impact estimates for five distinct practices that the survey measures.

In standard deviation units, Table 1 shows differences between caregiving behaviors reported on the 3.5-month survey versus what those same responses *would have been* 3.5 months after registration if the respondents had never registered and never received the messages. In other words, we take into account that caregiving practices would have changed over a 3.5-month period simply because the child aged, not just because of receiving text messages, and we adjust for that.

Table 2 shows what the impact estimates *would have been*—they would have been larger—if we had not made the adjustment.

To get the estimate of what the responses *would have been* after 3.5 months, we exploit the fact that different families register when their children are different ages.

Using the baseline data for all enrollees, we can estimate how much of a difference there normally is in a particular type of caregiving behavior between parents whose children differ in age by 3.5 months. The estimation approach accounts for the fact normal parenting changes more in 3.5 months when children are the youngest.

Once we have an estimate of how much the parent of a child of a given age *would have* changed their behavior over 3.5 months, we can add that number to the individual's actual baseline response, to get the estimate of what the individual's reported behavior *would have been* 3.5 months after registering if they had never been exposed to the text messages. The difference between their 3.5-month follow-up response and this estimate of how they would normally have responded is the estimated impact of receiving the text messages.

The estimated impacts in Table 1 are large enough to be policy relevant. Notice that the impact is largest for "Talk Numbers" (i.e., "*How often do you talk to your child about numbers or count objects?*") but all are positive and statistically significant at the 0.001 level.

Table 2 does not adjust for normal changes over 3.5 months. For each of the five parenting practices, the difference between Table 2 and Table 1 represents how much change would normally have occurred over 3.5 months among the families in the sample, even if they had not been receiving the texts. In other words, Table 2 shows the sum of normal changes plus the quasi-experimental impact estimates shown on Table 1.

Table 1. The Estimated Impacts of Basics Insights Text Messages on Five Caregiving Practices Among Parents Who Responded to Both Baseline and 3.5-Month Follow-Up Surveys

	Hug	Talk Feelings	Talk Numbers	Play	Read
Standardized Mean Difference	0.152	0.247	0.332	0.273	0.240
Standard Error	(0.029)	(0.035)	(0.033)	(0.028)	(0.033)
Sample Size (n)	691	691	691	691	691

Note: Differences reflect average difference in use of practices, regardless of child age, and therefore mask variation in children’s ages at which these behaviors are most likely to be differently adopted.

Table 2. Differences Between Baseline and Follow-up Responses, Without Adjusting for Normal Changes that Would Occur Over 3.5 Months Even Without the Text Messages

	Hug	Talk Feelings	Talk Numbers	Play	Read
Standardized Mean Difference	0.217	0.298	0.474	0.406	0.346
Standard Error	(0.039)	(0.041)	(0.039)	(0.037)	(0.038)
Sample Size (n)	691	691	691	691	691

Note: Differences reflect average difference in use of practices, regardless of child age, and therefore mask variation in children’s ages at which these behaviors are most likely to be differently adopted.

Findings for Child Development

In addition to increased use of research proven parenting activities, there was a clear relationship between engaging in those activities and parental reports of their children's behaviors and capabilities.

This section is based on The Basics Parental Assessment of Child Developmental Status (PACDS). The questionnaire asks the same questions about caregiving practices as the baseline and 3.5-month surveys, but it adds caregiver reports of children's capabilities and behaviors. The reason for administering the survey after six months is to avoid timing it too closely to the 3.5-month follow-up survey and the reason for beginning at 18-months is that the survey content is developmentally most appropriate for children of that age or older.

Below are the 11 child development survey items. Each begins with "My child ..." (Note: How items are grouped under headings is based on *a-priori* science-based reasoning, affirmed by exploratory factor analysis):

Social Skills

- shows ability to build positive relationships through appropriate interactions with adults and peers. Tries to make people feel happy.
- enjoys playing with other children.

Emotional Skills

- is good at calming down on their own if they're upset.
- shows ability to cooperate in groups and helps to find a solution if the group has a problem.

Reading Agency

- asks me to read to them.
- tries (or pretends) to read themselves.

Cognitive Skills.

- can say how many there are, when a group has between 1 and 5 things in it.
- can compare and sort objects...can put things into groups of the same type (for example, put the spoons with the spoons and the socks with the socks).
- If you say a word, can tell you a word that rhymes with it (e.g., "cat" and "hat")

Executive Function

- when confused, tries more than one way to figure something out.

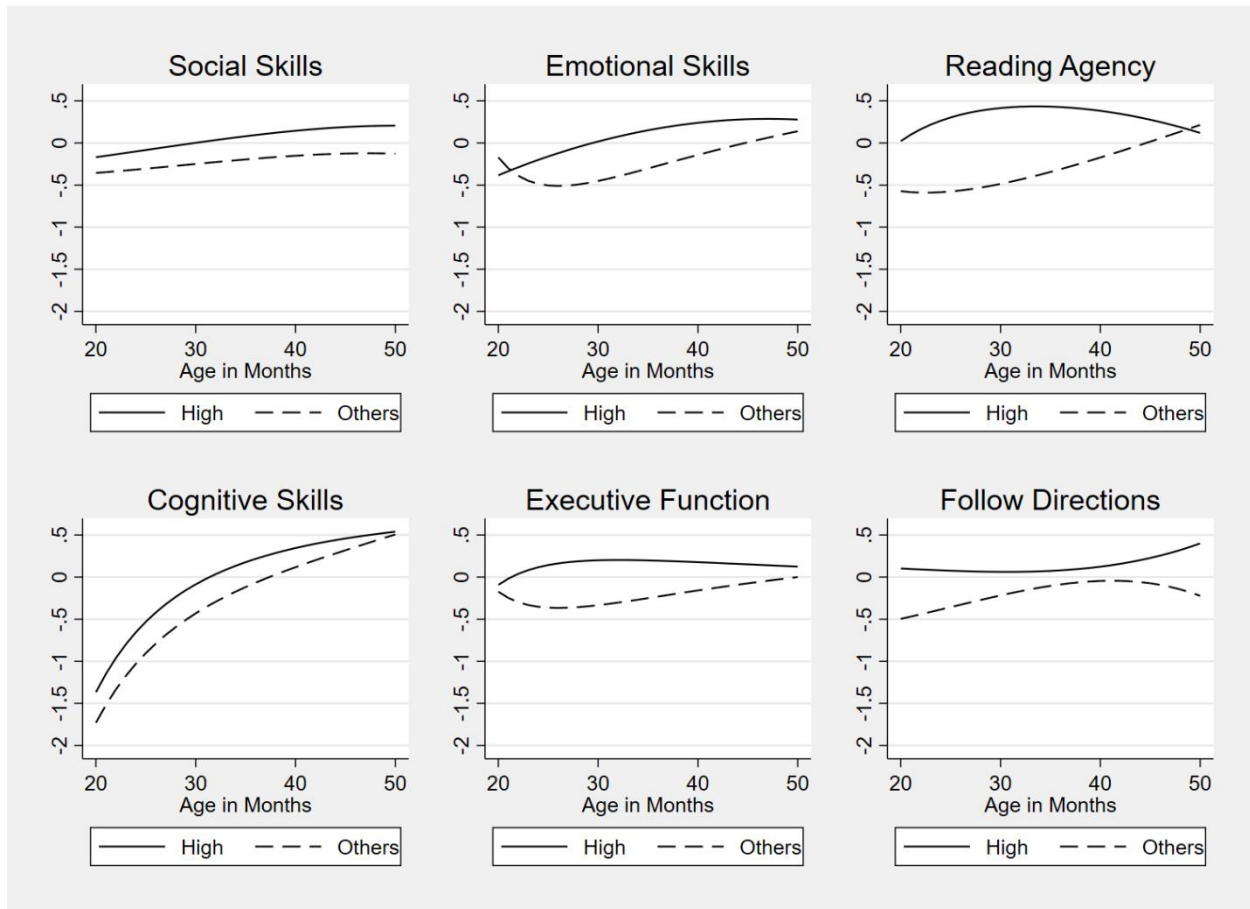
Follow Directions

- can follow directions that have multiple steps (e.g., "pick up your shirt and give it to me").

To construct Figure 3, parents were classified into two groups: one with above average values on a composite index of the five caregiving practices measured by the survey (the same practices as for Figures 1 & 2 and Tables 1 & 2), and the other with below-average values. All respondents were on one side of the line or the other—no one was *exactly* average.

Figure 3 shows that children whose parents are in the top half of the parenting distribution are rated by their parents as more mature on each indicator of child development. Note that the pattern appears distinct for each outcome variable.

Figure 3. Reported child outcomes by child age (standard deviation units), comparing households reporting above-average use of practices associated with The Basics Principles, relative to those reporting usage at or below average levels

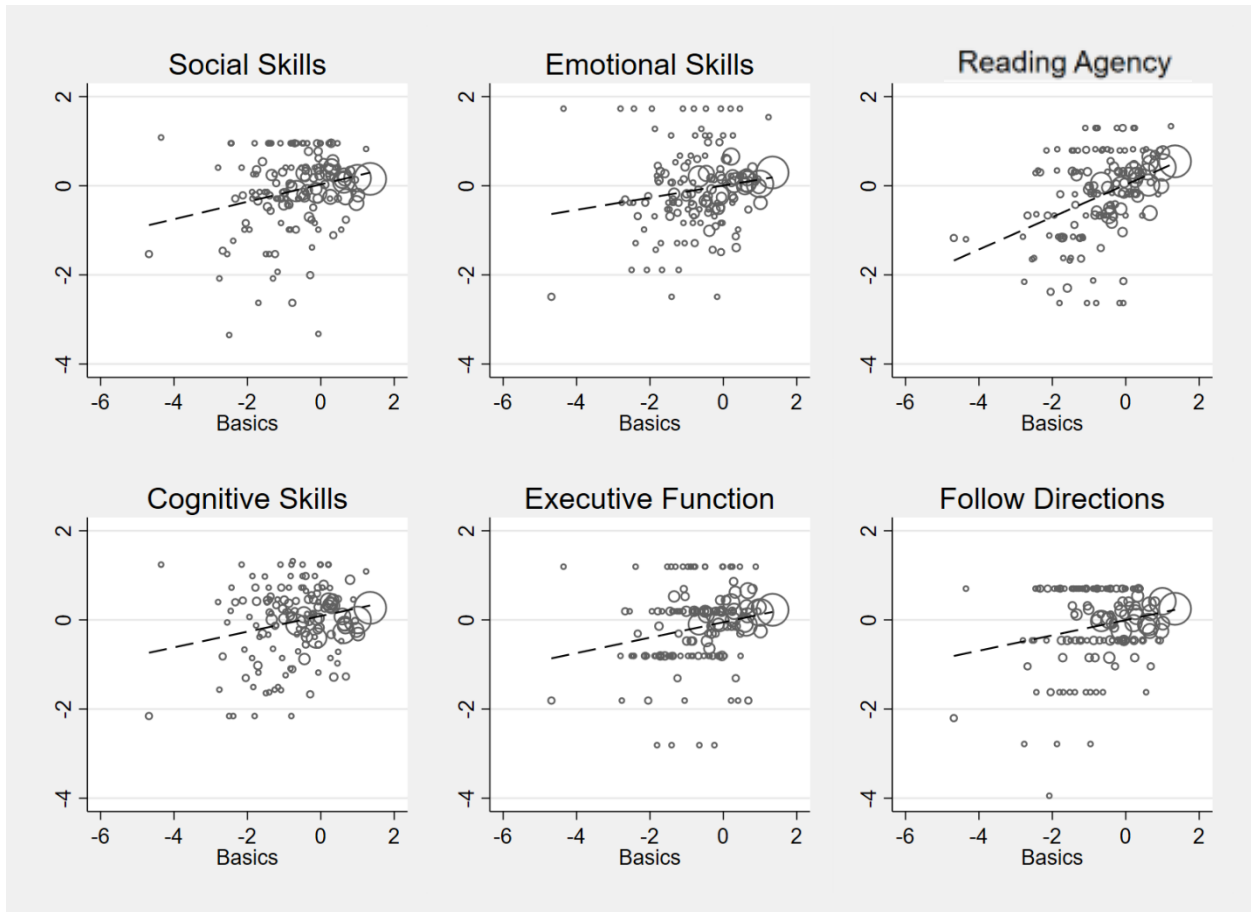


Note: Based on 540 responses to The Basics Parental Assessment of Child Developmental Status. Relationships between age and caregiving practices associated with The Basics Principles are shown using a smoothed trend fit using a fractional polynomial. Only parents with children at least 6 months of age were invited to respond and observations where children were more than 50 months old are removed as 95% of the data fall within the range reported in this figure, and few data points at older ages make comparisons less reliable.

A different way of examining the relationship between caregiving and child development is shown on Figure 4. The variable “Basics” on the horizontal axis is the same composite of the five parenting items as used for Figure 3.

Figure 4 shows the overall association between reported child outcomes and the relative reported caregiving (i.e., Basics) in standard deviation units. The horizontal axis is reported such that a 0 represents the mean value and the other values represent the positive or negative distances from the mean in standard deviation units.

Figure 4. Scatter plots between measures of parent/caregiver reports of child skills as a function of reported usage of practices associated with The Basics Principles (both axes in standard deviation units)



Each scatter plot in Figure 4 shows a positive relationship between reported caregiving behaviors and reported child outcomes.

The linear correlation between children’s Reading Agency (i.e., trying to read or asking to be read to) and parent/caregiver use of the parenting practices is about 0.35 while the other correlations range between 0.11 and 0.18. All are positive and statistically significant at the 0.001 level.

The size of plot points in Figure 4 is proportional to the number of observations represented at that point on the figure. Dashed lines represent lines of best linear fit.

Generalizability & Sample Representation

To examine representativeness, we compared respondents to just the baseline survey on parenting with those who completed both baseline and follow-up. We found no differences in terms of race or ethnicity. However, respondents to the follow-up had slightly higher reported education (0.1 standard deviation, or 1/3 of a year, as measured from an average education level of 14 years, or the equivalent of a 2-year degree).

Therefore, compared to the overall sample, parents with bachelor's degrees or higher were overrepresented in the calculations for Figure 1 and Table 1, because they had higher follow-up response rates. Generally, families with more education (and therefore more income and other resources with which education correlates) tend to experience smaller impacts of the text messaging program because their baseline levels are higher.

Consequently, findings in this evaluation may be lower bound impact estimates compared to if subscribers with less education were equally represented among respondents.

Finally, there is the issue of possible response bias. All of the data for this study were generated by surveys completed by parents reporting on their own behaviors and the developmental status of their children. Future research may generate data that are more independent of parents' perspectives and less vulnerable to self-reporting biases, which may have affected the findings in this report.

Conclusion

This summary evaluation finds evidence that Basics Insights text messaging is associated with:

- A discernable and policy relevant increase in reported caregiving practices known from past research to be associated with more favorable child development. Estimated impacts range from 0.150 standard deviation for hugging and cuddling (which is extremely high even at baseline) to 0.332 standard deviation for counting and talking about numbers.
- Greater reported use of these caregiving practices among parents is associated with more child maturity at any given age, as measured by reported skills and favorable behaviors.

Thus, not only do reported behaviors known to support healthy child development increase among families who receive Basics Insights but reported measures of child development are also greater among parents who report greater use of those caregiving behaviors.

Because baseline trend data provide a basis for estimating what parenting practices *would have been* in the absence of receiving the messages, the relationship of Basics Insights text messages to changes in parenting can be understood as *quasi-experimental causal estimates* of impact. Conversely, the relationships reported between caregiving and child development are *correlational*.

Future research can build on these estimates of caregiving impacts and correlational findings for how caregiving predicts child development, to generate causal estimates of how Basics Insights messaging affects child development.

PARENTAL RACE/ETHNICITY AND YEARS OF SCHOOLING

Data in this table cover subscribers who answered *both* the race/ethnicity and parental education questions on the baseline survey.

Key: 11=Some high school or less; 12=High school degree/GED; 13=Certificate or training program or Some college;
14="2-year college degree; 16=4-year college degree; 18="Advanced degree (e.g., master's degree, PhD, etc.)

Parents' Years of Schooling

Race/Ethnicity	11	12	13	14	16	18	Total
White or Caucasian	65	327	361	185	710	774	2,422
	2.68	13.5	14.91	7.64	29.31	31.96	100.00
Black or African Am.	42	237	217	79	171	139	885
	4.75	26.78	24.52	8.93	19.32	15.71	100.00
Hispanic or Latinx (English Speaking)	23	104	118	41	82	51	419
	5.49	24.82	28.16	9.79	19.57	12.17	100.00
Hispanic or Latinx (Spanish Speaking)	152	171	82	28	64	16	513
	29.63	33.33	15.98	5.46	12.48	3.12	100.00
South or East Asian	3	11	15	7	57	116	209
	1.44	5.26	7.18	3.35	27.27	55.5	100.00
Pacific Islander	0	3	3	0	4	5	15
	0.00	20.00	20.00	0.00	26.67	33.33	100.00
American Indian	0	3	3	1	2	7	16
	0.00	18.75	18.75	6.25	12.5	43.75	100.00
Caribbean	2	1	14	7	6	11	41
	4.88	2.44	34.15	17.07	14.63	26.83	100.00
Arab or Middle Eastern	2	5	12	4	18	18	59
	3.39	8.47	20.34	6.78	30.51	30.51	100.00
Blank	5	31	22	15	31	25	129
	3.88	24.03	17.05	11.63	24.03	19.38	100.00
Multiracial (checked more than one)	16	24	59	18	43	63	223
	7.17	10.76	26.46	8.07	19.28	28.25	100.00
Total	310	917	906	385	1,188	1,225	4,931
	6.29	18.60	18.37	7.81	24.09	24.84	100.00