# Technical Appendix

Project name: Improving operational processes at USCIS

Date finalized: 11/12/2025

## Table 1: Summary Statistics

|  | Mean | SD |
|---|---|---|
|  | Outcomes | |
| N-400 Submitted | 0.085 | 0.279 |
| N-400 Submitted: Online | 0.052 | 0.223 |
| N-400 Submitted: Mail | 0.033 | 0.178 |
| N-400 Submitted: Full Fee | 0.060 | 0.238 |
| N-400 Submitted: Full Fee Waiver | 0.012 | 0.108 |
| N-400 Submitted: Partial Fee Waiver | 0.013 | 0.113 |
| N-400 Submitted: Any Fee Waiver | 0.025 | 0.156 |
|  | Treatments | |
| Treatment Group | 0.161 | 0.368 |
| Letter Delivered | 0.144 | 0.351 |
|  | Covariates (Strata) | |
| Years as LPR: 6 | 0.294 | 0.455 |
| Years as LPR: 7 | 0.285 | 0.451 |
| Years as LPR: 8 | 0.223 | 0.416 |
| Years as LPR: 9 | 0.199 | 0.399 |
| Class of Admission: Employment | 0.102 | 0.302 |
| Class of Admission: Family | 0.281 | 0.449 |
| Class of Admission: Humanitarian | 0.139 | 0.346 |
| Class of Admission: Parent | 0.227 | 0.419 |
| Class of Admission: Spouse | 0.252 | 0.434 |
| Region of Birth: Caribbean | 0.165 | 0.372 |
| Region of Birth: Central/South America | 0.120 | 0.325 |
| Region of Birth: China/India | 0.146 | 0.353 |
| Region of Birth: Mexico | 0.213 | 0.409 |
| Region of Birth: Other | 0.355 | 0.478 |
|  | Covariates (Non-Strata) | |
| Male | 0.456 | 0.498 |
| Age | 48.770 | 16.854 |
| Marital Status: Divorced/Widowed | 0.082 | 0.274 |
| Marital Status: Married | 0.661 | 0.473 |
| Marital Status: Single | 0.247 | 0.431 |
| State: California | 0.209 | 0.407 |
| State: New York | 0.140 | 0.347 |
| State: Texas | 0.104 | 0.305 |
| State: Florida | 0.109 | 0.312 |
| State: New Jersey | 0.049 | 0.215 |
| Propensity to Refile | 0.007 | 0.006 |
| Filed N-400 Prior to Letter Initiation | 0.013 | 0.114 |
| Median Income of Zip Code ($) | 69309.840 | 30409.916 |

Notes. Means and standard deviations shown. Strata covariates are the covariates that form the randomization blocks. The Propensity to Refile is a variable calculated internally by USCIS. Due to delays between when N-400 data is uploaded to USCIS servers and the timing of randomization and letter mailings, approximately 1.3% of the randomization pool had already submitted the Form N-400 before the first letters were mailed on October 26, 2023. These pre-submissions are captured by the Filed N-400 Prior to Letter Initiation covariate. (N=1,861,178).

Table A1: Balance Checks

| | Means | | Difference | | |
| | Treatment | Control | Raw | Standardized | p-value |
| | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|
| | | | Strata Covariates | | |
| Years as LPR: 6 | 0.294 | 0.294 | 0.000 | 0.000 | - |
| Years as LPR: 7 | 0.285 | 0.285 | 0.000 | 0.000 | - |
| Years as LPR: 8 | 0.223 | 0.223 | 0.000 | 0.000 | - |
| Years as LPR: 9 | 0.198 | 0.199 | -0.001 | -0.003 | - |
| Class of Admission: Employment | 0.102 | 0.102 | 0.000 | 0.000 | - |
| Class of Admission: Family | 0.280 | 0.281 | -0.001 | -0.002 | - |
| Class of Admission: Humanitarian | 0.139 | 0.139 | 0.000 | 0.000 | - |
| Class of Admission: Parent | 0.227 | 0.227 | 0.000 | 0.000 | - |
| Class of Admission: Spouse | 0.253 | 0.252 | 0.001 | 0.002 | - |
| Region of Birth: Caribbean | 0.165 | 0.165 | 0.000 | 0.000 | - |
| Region of Birth: Central/South America | 0.120 | 0.120 | 0.000 | 0.000 | - |
| Region of Birth: China/India | 0.146 | 0.146 | 0.000 | 0.000 | - |
| Region of Birth: Mexico | 0.213 | 0.213 | 0.000 | 0.000 | - |
| Region of Birth: Other | 0.355 | 0.355 | 0.000 | 0.000 | - |
| | | | Non-Strata Covariates | | |
| Male | 0.457 | 0.456 | 0.001 | 0.002 | 0.073 |
| Age | 48.741 | 48.776 | -0.035 | -0.002 | 0.170 |
| Marital Status: Divorced/Widowed | 0.081 | 0.082 | -0.001 | -0.004 | 0.614 |
| Marital Status: Married | 0.662 | 0.661 | 0.001 | 0.002 | 0.854 |
| Marital Status: Single | 0.247 | 0.247 | 0.000 | 0.000 | 0.676 |
| State: California | 0.209 | 0.209 | 0.000 | 0.000 | 0.658 |
| State: New York | 0.141 | 0.140 | 0.001 | 0.003 | 0.688 |
| State: Texas | 0.103 | 0.104 | -0.001 | -0.003 | 0.051 |
| State: Florida | 0.109 | 0.110 | -0.001 | -0.003 | 0.102 |
| State: New Jersey | 0.049 | 0.049 | 0.000 | 0.000 | 0.329 |
| Propensity to Refile | 0.007 | 0.007 | 0.000 | 0.000 | 0.413 |
| Filed N-400 Prior to Letter Initiation | 0.013 | 0.013 | 0.000 | 0.000 | 0.644 |
| Median Income of Zip Code ($) | 69292.627 | 69313.148 | -20.521 | -0.001 | 0.657 |

Notes. The table provides mean values for both the treatment group (n=300,000) and the control group (n=1,561,178). Standardized differences are calculated as raw differences divided by the pooled standard deviation. p-values are derived from regressions that estimate differences between the treatment and control group, including fixed effects for randomization strata. Strata covariates are the covariates that form the randomization blocks. No p-values are shown for strata covariates since they are balanced by design. The Propensity to Refile is an internally calculated value by USCIS. Due to delays between the upload of N-400 data to USCIS servers and the timing of randomization and letter mailings, approximately 1.3% of the randomization pool had already submitted the Form N-400 by October 26, 2023. These pre-submissions are captured by the Filed N-400 Prior to Letter Initiation covariate.

Table A2: Effect of the Letter on N-400 Submission for Full Sample and Subgroups

| Group | Value | ITT | Std Error | 95 LB | 95 UB | N |
|---|---|---|---|---|---|---|
| Full Sample | Full Sample | 1.01 | 0.06 | 0.89 | 1.12 | 1,861,178 |
| Class of Admission | Employment | 1.44 | 0.21 | 1.02 | 1.85 | 189,025 |
| Class of Admission | Family | 0.89 | 0.11 | 0.67 | 1.10 | 522,086 |
| Class of Admission | Humanitarian | 0.55 | 0.17 | 0.23 | 0.88 | 258,060 |
| Class of Admission | Parent | 0.74 | 0.10 | 0.55 | 0.92 | 422,180 |
| Class of Admission | Spouse | 1.46 | 0.12 | 1.23 | 1.69 | 469,827 |
| Region of Birth | Caribbean | 0.76 | 0.15 | 0.47 | 1.05 | 307,967 |
| Region of Birth | Central/South America | 1.39 | 0.18 | 1.04 | 1.75 | 223,739 |
| Region of Birth | China/India | 0.64 | 0.13 | 0.39 | 0.88 | 272,434 |
| Region of Birth | Mexico | 0.67 | 0.10 | 0.48 | 0.87 | 396,601 |
| Region of Birth | Other | 1.35 | 0.11 | 1.14 | 1.55 | 660,437 |
| Years as LPR | 6 years | 1.23 | 0.11 | 1.02 | 1.45 | 546,740 |
| Years as LPR | 7 years | 1.08 | 0.10 | 0.88 | 1.29 | 530,681 |
| Years as LPR | 8 years | 0.74 | 0.12 | 0.51 | 0.98 | 414,271 |
| Years as LPR | 9 years | 0.86 | 0.13 | 0.60 | 1.11 | 369,486 |
| Gender | Female | 0.98 | 0.08 | 0.83 | 1.13 | 1,010,674 |
| Gender | Male | 1.05 | 0.08 | 0.89 | 1.22 | 848,335 |
| Age | 19-29 years | 0.67 | 0.17 | 0.34 | 0.99 | 271,488 |
| Age | 30-39 years | 1.05 | 0.15 | 0.76 | 1.34 | 350,658 |
| Age | 40-49 years | 1.25 | 0.13 | 0.98 | 1.51 | 388,238 |
| Age | 50-59 years | 1.23 | 0.13 | 0.98 | 1.48 | 348,597 |
| Age | 60-69 years | 0.95 | 0.14 | 0.68 | 1.21 | 259,868 |
| Age | 70-79 years | 0.75 | 0.14 | 0.47 | 1.03 | 159,466 |
| Age | 80+ years | 0.48 | 0.14 | 0.20 | 0.75 | 82,853 |
| Marital Status | Divorced/Widowed | 0.89 | 0.17 | 0.55 | 1.22 | 151,985 |
| Marital Status | Married | 1.12 | 0.07 | 0.98 | 1.26 | 1,230,961 |
| Marital Status | Single | 0.77 | 0.12 | 0.53 | 1.01 | 460,261 |

Notes. Shows estimated intention-to-treat (ITT) effects (in percentage points) with robust standard errors and corresponding 95% confidence intervals (LB and UB) for the overall sample and specific subgroups. The ITT estimates are based on regressions of the N-400 submission on the treatment assignment and randomization strata fixed effects.

Table A3: Robustness Checks: Effect of Letter on N-400 Submissions

| | N-400 Submission | | | | | |
|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| treat | 1.01* | 1.01* | 1.01* | 1.01* | 1.01* | 1.01* |
| | (0.06) | (0.05) | (0.06) | (0.05) | (0.06) | (0.05) |
| $N$ | 1861178 | 1836652 | 1861178 | 1836652 | 1861178 | 1836652 |
| Drop Pre-Submissions | No | Yes | No | Yes | No | Yes |
| Controls | No | No | Yes | Yes | Yes | Yes |
| Lin-Estimator | No | No | No | No | Yes | Yes |

Notes. Regression estimates shown of intention-to-treat effects with robust standard errors in parentheses. * $p < 0.05$. Column (1) is based on a linear regression of N-400 submission on treatment assignment and randomization strata fixed effects. Columns (2), (4), and (6) exclude all observations of N-400 submissions made between the randomization date and the start of letter mailings on October 26, 2023; this exclusion was balanced between the treatment and control group. Columns (3) to (6) add controls for marital status, age, gender, state, and propensity to refile. Columns (5) and (6) estimate treatment effects using the method from Lin (2013), which adds the control variables mean centered and interacted with treatment assignment.

Table A4: Effect Heterogeneity: Class of Admission, Region of Birth, and Years as LPR

| | N-400 Submission | | |
| --- | --- | --- | --- |
| | (1) Class of Admission | (2) Region of Birth | (3) Years as LPR |
| Treatment Group | 0.55* (0.17) | 0.64* (0.13) | 0.74* (0.12) |
| Employment · Treatment Group | 0.88* (0.27) | | |
| Family · Treatment Group | 0.33 (0.20) | | |
| Parent · Treatment Group | 0.18 (0.19) | | |
| Spouse · Treatment Group | 0.90* (0.20) | | |
| Caribbean · Treatment Group | | 0.12 (0.19) | |
| Central/South America · Treatment Group | | 0.75* (0.22) | |
| Mexico · Treatment Group | | 0.03 (0.16) | |
| Other · Treatment Group | | 0.71* (0.16) | |
| 6 years · Treatment Group | | | 0.49* (0.16) |
| 7 years · Treatment Group | | | 0.34* (0.16) |
| 9 years · Treatment Group | | | 0.11 (0.18) |
| N | 1861178 | 1861178 | 1861178 |

Regression coefficients with robust standard errors in parentheses. p < 0.05. Reference categories are Humanitarian for Class of admission, China/India for Region of birth, and 8 for Years as LPR. All models include randomization strata fixed effects.

Table A5: Effect Heterogeneity: Gender, Age, and Marital Status

| | N-400 Submission | | |
| --- | --- | --- | --- |
| | (1) Gender | (2) Age | (3) Marital Status |
| Treatment Group | 0.98* (0.08) | 0.67* (0.17) | 0.78* (0.12) |
| Male · Treatment Group | 0.07 (0.11) | | |
| 30-39 years · Treatment Group | | 0.38 (0.22) | |
| 40-49 years · Treatment Group | | 0.58* (0.21) | |
| 50-59 years · Treatment Group | | 0.56* (0.21) | |
| 60-69 years · Treatment Group | | 0.27 (0.21) | |
| 70-79 years · Treatment Group | | 0.07 (0.22) | |
| 80+ years · Treatment Group | | -0.19 (0.22) | |
| Divorced/Widowed · Treatment Group | | | 0.11 (0.21) |
| Married · Treatment Group | | | 0.34* (0.14) |
| N | 1859009 | 1861178 | 1843207 |

Regression coefficients with robust standard errors in parentheses. $p < 0.05$. Reference categories are Female for Gender, 19-29 years old for Age, and Single for Marital Status. Each reference category was selected based on having the smallest observe point estimate for the treatment effect within that class. All models include randomization strata fixed effects and main effects for each moderator category (gender, age, and marital status).

## Table A6: Robustness Checks: Effect of Letter Delivered on N-400 Submissions

| | Letter Delivered | | | | N-400 Submission | | | |
|---|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Treatment Group | 0.89* | 0.90* | 0.89* | 0.90* | | | | |
| | (0.00) | (0.00) | (0.00) | (0.00) | | | | |
| Letter Delivered | | | | | 1.13* | 1.12* | 1.13* | 1.12* |
| | | | | | (0.06) | (0.06) | (0.06) | (0.06) |
| Observations | 1861178 | 1836652 | 1861178 | 1836652 | 1861178 | 1836652 | 1861178 | 1836652 |
| Partial F-Statistic | 2500000 | 2800000 | 2500000 | 2800000 | | | | |
| Drop Pre-Submissions | No | Yes | No | Yes | No | Yes | No | Yes |
| Controls | No | No | Yes | Yes | No | No | Yes | Yes |

Notes. Regression estimates shown with robust standard errors in parentheses. * p < 0.05. Columns (1) to (4) show first stage estimates based on a linear regression of letter delivery on treatment assignment and randomization strata fixed effects. Columns (5) to (8) show local average treatment effect (LATE) estimates based on instrumental variable regressions of N-400 submissions on letter delivery, instrumented by treatment assignment, and randomization strata fixed effects. Columns (2), (4), (6) and (8) exclude all observations of N-400 submissions made between the randomization date and the start of letter mailings on October 26, 2023; this exclusion was balanced between the treatment and control group. Columns (3), (4), (7) and (8) add controls for marital status, age, gender, state, and propensity to refile.

Table A7: Effect of the Letter on N-400 Submission by Mode of Submission and Use of Fee Waiver

| Outcome | Value | ITT | Std Error | 95 LB | 95 UB | N |
|---|---|---|---|---|---|---|
| Mode of Filing | Online | 0.71 | 0.05 | 0.62 | 0.80 | 1,861,178 |
| Mode of Filing | Mail | 0.29 | 0.04 | 0.22 | 0.36 | 1,861,178 |
| Application Fee | Full Fee | 0.79 | 0.05 | 0.69 | 0.89 | 1,861,178 |
| Application Fee | Any Fee Waiver | 0.22 | 0.03 | 0.15 | 0.28 | 1,861,178 |
| Application Fee | Partial Fee Waiver | 0.11 | 0.02 | 0.06 | 0.16 | 1,861,178 |
| Application Fee | Full Fee Waiver | 0.11 | 0.02 | 0.06 | 0.15 | 1,861,178 |

Notes. Shows estimated intention-to-treat (ITT) effects (in percentage points) with robust standard errors and corresponding 95% confidence intervals (LB and UB) for the overall sample with different outcomes based on mode of submission and use of fee waiver. The ITT estimates are based on regressions of the N-400 submission outcomes on the treatment assignment and randomization strata fixed effects. (N=1,861,178).

Table A8: Robustness Checks: Effect of Letter on N-400 Submissions with Standard Error Adjustments

| | N-400 Submission | | | |
| --- | --- | --- | --- | --- |
| | (1) | (2) | (3) | (4) |
| treat | 1.01* | 1.01* | 1.01* | 1.01* |
| | (0.06) | (0.06) | (0.06) | (0.09) |
| N | 1861178 | 1861178 | 1861178 | 1861178 |
| Drop Pre-Submissions | No | No | No | No |
| Controls | No | No | No | No |
| Lin-Estimator | No | No | No | No |
| Cluster | None, Robust | Zip Code | CBSA | Randomization Block |

Regression estimates shown of intention-to-treat effects with standard errors in parentheses. * $p < 0.05$. All columns are based on a linear regression of N-400 submission on treatment assignment and randomization strata fixed effects. Column (1) uses robust standard errors whereas Columns (2), (3), and (4) cluster by zip code, CBSA, and randomization block. .

Table A9: Heterogeneity: Effect of Letter on N-400 Submissions by Concentration of LPRs per Zip Code

| | N-400 Submission | | | | |
| --- | --- | --- | --- | --- | --- |
| | (1) | (2) | (3) | (4) | (5) |
| Treatment Group | 1.01* | 1.01* | 1.07* | 1.07* | 1.07* |
| | (0.06) | (0.06) | (0.06) | (0.06) | (0.06) |
| Treatment Group * Concentration of LPRs | | | -0.17* | -0.17* | -0.17* |
| | | | (0.06) | (0.06) | (0.06) |
| Observations | 1833237 | 1833237 | 1833237 | 1833237 | 1833237 |
| Concentration control | No | Yes | Yes | Yes | Yes |
| Income and Population controls | – | – | – | Linear | Cubic |

Regression estimates shown of intention-to-treat effects with robust standard errors in parentheses. * $p < 0.05$. Column (1) is based on a linear regression of N-400 submission on treatment assignment and randomization strata fixed effects after removing individuals with missing zip code data. Columns (2) through (5) include a control for the concentration of LPRs, defined as the number of LPRs in our analytic sample divided by the 2023 ACS 5-Year Zip Code population estimates. Column (3) interacts concentration with our treatment indicator, Column (4) adds linear controls for zip code population size and median income, and column (5) includes cubic controls for zip code population size and median income.

Table A10: Effect of the Letter on N-400 Submission for Full Sample and Subgroups by December 2024

| Group | Value | ITT | Std Error | 95 LB | 95 UB | N |
|---|---|---|---|---|---|---|
| Full Sample | Full Sample | 1.13 | 0.07 | 1.00 | 1.27 | 1,861,178 |
| Class of Admission | Employment | 1.28 | 0.25 | 0.80 | 1.76 | 189,025 |
| Class of Admission | Family | 0.91 | 0.13 | 0.66 | 1.16 | 522,086 |
| Class of Admission | Humanitarian | 0.65 | 0.20 | 0.27 | 1.03 | 258,060 |
| Class of Admission | Parent | 0.92 | 0.12 | 0.69 | 1.15 | 422,180 |
| Class of Admission | Spouse | 1.79 | 0.14 | 1.51 | 2.06 | 469,827 |
| Region of Birth | Caribbean | 0.91 | 0.18 | 0.56 | 1.25 | 307,967 |
| Region of Birth | Central/South America | 1.51 | 0.22 | 1.09 | 1.94 | 223,739 |
| Region of Birth | China/India | 0.68 | 0.15 | 0.39 | 0.97 | 272,434 |
| Region of Birth | Mexico | 0.85 | 0.12 | 0.61 | 1.09 | 396,601 |
| Region of Birth | Other | 1.47 | 0.12 | 1.23 | 1.71 | 660,437 |
| Years as LPR | 6 years | 1.32 | 0.13 | 1.06 | 1.57 | 546,740 |
| Years as LPR | 7 years | 1.12 | 0.12 | 0.87 | 1.36 | 530,681 |
| Years as LPR | 8 years | 1.07 | 0.15 | 0.78 | 1.36 | 414,271 |
| Years as LPR | 9 years | 0.96 | 0.14 | 0.68 | 1.24 | 369,486 |
| Gender | Female | 1.19 | 0.09 | 1.01 | 1.37 | 1,010,674 |
| Gender | Male | 1.09 | 0.10 | 0.90 | 1.28 | 848,335 |
| Age | 19-29 years | 0.68 | 0.20 | 0.30 | 1.07 | 271,488 |
| Age | 30-39 years | 1.11 | 0.17 | 0.77 | 1.45 | 350,658 |
| Age | 40-49 years | 1.36 | 0.16 | 1.04 | 1.67 | 388,238 |
| Age | 50-59 years | 1.28 | 0.15 | 0.99 | 1.57 | 348,597 |
| Age | 60-69 years | 1.35 | 0.17 | 1.03 | 1.68 | 259,868 |
| Age | 70-79 years | 0.93 | 0.18 | 0.59 | 1.28 | 159,466 |
| Age | 80+ years | 0.64 | 0.17 | 0.30 | 0.98 | 82,853 |
| Marital Status | Divorced/Widowed | 0.97 | 0.21 | 0.57 | 1.38 | 151,985 |
| Marital Status | Married | 1.24 | 0.08 | 1.08 | 1.40 | 1,230,961 |
| Marital Status | Single | 0.89 | 0.15 | 0.60 | 1.18 | 460,261 |

Notes. Shows estimated intention-to-treat (ITT) effects (in percentage points) with robust standard errors and corresponding 95% confidence intervals (LB and UB) for the overall sample and specific subgroups. The ITT estimates are based on regressions of the N-400 submission on the treatment assignment and randomization strata fixed effects.

Table A11: Effect of the Letter on N-400 Submission by Mode of Submission and Use of Fee Waiver by December 2024

| Outcome | Value | ITT | Std Error | 95 LB | 95 UB | N |
|---|---|---|---|---|---|---|
| Mode of Filing | Online | 0.81 | 0.05 | 0.71 | 0.92 | 1,861,178 |
| Mode of Filing | Mail | 0.32 | 0.04 | 0.23 | 0.41 | 1,861,178 |
| Application Fee | Full Fee | 0.78 | 0.05 | 0.68 | 0.88 | 1,861,178 |
| Application Fee | Any Fee Waiver | 0.35 | 0.05 | 0.26 | 0.45 | 1,861,178 |
| Application Fee | Partial Fee Waiver | 0.21 | 0.04 | 0.13 | 0.29 | 1,861,178 |
| Application Fee | Full Fee Waiver | 0.15 | 0.03 | 0.09 | 0.20 | 1,861,178 |

Notes. Shows estimated intention-to-treat (ITT) effects (in percentage points) with robust standard errors and corresponding 95% confidence intervals (LB and UB) for the overall sample with different outcomes based on mode of submission and use of fee waiver. The ITT estimates are based on regressions of the N-400 submission outcomes on the treatment assignment and randomization strata fixed effects. (N=1,861,178).

**Table A12.** Treatment Effects Of Intervention, By Week

| Week | Week Date | Treatment | | | | Control | | | Treatment Effect | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Mean | Lower Bound | Upper Bound | Mean | Lower Bound | Upper Bound | Estimate | Lower Bound | Upper Bound |
| 0 | 10/26/2023 | 1.327 | 1.286 | 1.368 | 1.316 | 1.298 | 1.334 | 0.011 | -0.034 | 0.055 |
| 1 | 11/2/2023 | 1.528 | 1.484 | 1.572 | 1.506 | 1.487 | 1.525 | 0.022 | -0.026 | 0.069 |
| 2 | 11/9/2023 | 1.728 | 1.681 | 1.774 | 1.69 | 1.669 | 1.71 | 0.038 | -0.013 | 0.089 |
| 3 | 11/16/2023 | 1.911 | 1.862 | 1.96 | 1.87 | 1.849 | 1.891 | 0.041 | -0.013 | 0.094 |
| 4 | 11/23/2023 | 2.114 | 2.063 | 2.165 | 2.051 | 2.029 | 2.073 | 0.063 | 0.007 | 0.119 |
| 5 | 11/30/2023 | 2.297 | 2.243 | 2.351 | 2.202 | 2.179 | 2.225 | 0.095 | 0.037 | 0.153 |
| 6 | 12/7/2023 | 2.505 | 2.449 | 2.561 | 2.377 | 2.353 | 2.401 | 0.128 | 0.067 | 0.188 |
| 7 | 12/14/2023 | 2.707 | 2.649 | 2.765 | 2.545 | 2.52 | 2.57 | 0.162 | 0.099 | 0.225 |
| 8 | 12/21/2023 | 2.927 | 2.866 | 2.987 | 2.715 | 2.69 | 2.741 | 0.211 | 0.146 | 0.277 |
| 9 | 12/28/2023 | 3.161 | 3.098 | 3.224 | 2.882 | 2.856 | 2.908 | 0.279 | 0.211 | 0.346 |
| 10 | 1/4/2024 | 3.408 | 3.343 | 3.473 | 3.066 | 3.039 | 3.093 | 0.342 | 0.272 | 0.413 |
| 11 | 1/11/2024 | 3.647 | 3.58 | 3.714 | 3.244 | 3.216 | 3.272 | 0.403 | 0.331 | 0.475 |
| 12 | 1/18/2024 | 3.886 | 3.817 | 3.955 | 3.446 | 3.418 | 3.475 | 0.44 | 0.365 | 0.514 |
| 13 | 1/25/2024 | 4.148 | 4.077 | 4.219 | 3.663 | 3.633 | 3.692 | 0.485 | 0.408 | 0.562 |
| 14 | 2/1/2024 | 4.4 | 4.327 | 4.473 | 3.888 | 3.858 | 3.919 | 0.511 | 0.432 | 0.59 |
| 15 | 2/8/2024 | 4.653 | 4.578 | 4.729 | 4.113 | 4.082 | 4.145 | 0.54 | 0.459 | 0.621 |
| 16 | 2/15/2024 | 4.904 | 4.827 | 4.981 | 4.322 | 4.29 | 4.354 | 0.582 | 0.498 | 0.665 |
| 17 | 2/22/2024 | 5.169 | 5.09 | 5.248 | 4.54 | 4.508 | 4.573 | 0.628 | 0.543 | 0.713 |
| 18 | 2/29/2024 | 5.46 | 5.378 | 5.541 | 4.788 | 4.754 | 4.821 | 0.672 | 0.584 | 0.759 |
| 19 | 3/7/2024 | 5.752 | 5.668 | 5.835 | 5.057 | 5.023 | 5.091 | 0.694 | 0.605 | 0.784 |
| 20 | 3/14/2024 | 6.069 | 5.984 | 6.155 | 5.337 | 5.302 | 5.372 | 0.732 | 0.64 | 0.824 |
| 21 | 3/21/2024 | 6.403 | 6.316 | 6.491 | 5.641 | 5.605 | 5.677 | 0.762 | 0.668 | 0.856 |
| 22 | 3/28/2024 | 6.817 | 6.727 | 6.907 | 6.013 | 5.976 | 6.051 | 0.803 | 0.707 | 0.9 |
| 23 | 4/4/2024 | 7.359 | 7.265 | 7.452 | 6.484 | 6.445 | 6.522 | 0.875 | 0.774 | 0.975 |
| 24 | 4/11/2024 | 7.543 | 7.449 | 7.638 | 6.651 | 6.612 | 6.69 | 0.892 | 0.791 | 0.994 |
| 25 | 4/18/2024 | 7.727 | 7.631 | 7.822 | 6.822 | 6.782 | 6.862 | 0.904 | 0.802 | 1.007 |
| 26 | 4/25/2024 | 7.926 | 7.83 | 8.023 | 7.003 | 6.963 | 7.043 | 0.923 | 0.82 | 1.027 |
| 27 | 5/2/2024 | 8.133 | 8.035 | 8.231 | 7.197 | 7.157 | 7.238 | 0.935 | 0.83 | 1.04 |
| 28 | 5/9/2024 | 8.332 | 8.233 | 8.431 | 7.396 | 7.354 | 7.437 | 0.936 | 0.83 | 1.042 |
| 29 | 5/16/2024 | 8.52 | 8.42 | 8.62 | 7.57 | 7.528 | 7.611 | 0.95 | 0.843 | 1.057 |
| 30 | 5/23/2024 | 8.7 | 8.599 | 8.801 | 7.727 | 7.685 | 7.768 | 0.973 | 0.865 | 1.082 |
| 31 | 5/30/2024 | 8.848 | 8.747 | 8.95 | 7.872 | 7.83 | 7.914 | 0.976 | 0.867 | 1.085 |
| 32 | 6/6/2024 | 9.006 | 8.903 | 9.108 | 8.027 | 7.984 | 8.069 | 0.979 | 0.868 | 1.089 |
| 33 | 6/13/2024 | 9.165 | 9.062 | 9.269 | 8.164 | 8.121 | 8.207 | 1.001 | 0.89 | 1.111 |
| 34 | 6/20/2024 | 9.318 | 9.214 | 9.422 | 8.31 | 8.267 | 8.353 | 1.007 | 0.896 | 1.119 |

**Table A13.** Treatment Effects By Median Income Of Zip Code Of Residence

| Column 1 | Median income | Estimate | SD | Lower 95 CI | Upper 95 CI |
|---|---|---|---|---|---|
| 1 | 6493 | 0.004807205 | 0.003821693 | -0.00209609 | 0.011672302 |
| 2 | 11426.67347 | 0.004406514 | 0.005204594 | -0.005133917 | 0.013616066 |
| 3 | 16360.34694 | 0.004835094 | 0.003920041 | -0.002058687 | 0.011888455 |
| 4 | 21294.02041 | 0.004982948 | 0.003321847 | -0.001196916 | 0.011361971 |
| 5 | 26227.69388 | 0.005173045 | 0.002800911 | -9.68E-05 | 0.01081232 |
| 6 | 31161.36735 | 0.007626483 | 0.002000429 | 0.003523879 | 0.011252724 |
| 7 | 36095.04082 | 0.007691929 | 0.001675545 | 0.004706364 | 0.011088579 |
| 8 | 41028.71429 | 0.007807742 | 0.001521085 | 0.005031444 | 0.010861647 |
| 9 | 45962.38776 | 0.008804528 | 0.001394768 | 0.006323829 | 0.011647298 |
| 10 | 50896.06122 | 0.007479038 | 0.001508526 | 0.004384007 | 0.010174929 |
| 11 | 55829.73469 | 0.008323703 | 0.001472854 | 0.005511276 | 0.011030742 |
| 12 | 60763.40816 | 0.008326246 | 0.001557514 | 0.005528105 | 0.01160289 |
| 13 | 65697.08163 | 0.008786929 | 0.00156474 | 0.005944298 | 0.011578962 |
| 14 | 70630.7551 | 0.011781869 | 0.001678989 | 0.00852041 | 0.014811921 |
| 15 | 75564.42857 | 0.014276556 | 0.001593935 | 0.010860792 | 0.017364486 |
| 16 | 80498.10204 | 0.014652937 | 0.001655139 | 0.011417258 | 0.0176128 |
| 17 | 85431.77551 | 0.013453562 | 0.001686849 | 0.010510963 | 0.016725656 |
| 18 | 90365.44898 | 0.01060258 | 0.001796436 | 0.007107951 | 0.01422736 |
| 19 | 95299.12245 | 0.009098361 | 0.001991911 | 0.005492938 | 0.012678231 |
| 20 | 100232.7959 | 0.009672254 | 0.00195826 | 0.006224929 | 0.013751964 |
| 21 | 105166.4694 | 0.010598921 | 0.002119331 | 0.006517143 | 0.014386257 |
| 22 | 110100.1429 | 0.011760965 | 0.002238881 | 0.00786376 | 0.015983097 |
| 23 | 115033.8163 | 0.013370872 | 0.002388127 | 0.008843323 | 0.017495322 |
| 24 | 119967.4898 | 0.016060358 | 0.002357534 | 0.011004763 | 0.020936809 |
| 25 | 124901.1633 | 0.018452351 | 0.002355531 | 0.013670228 | 0.023098274 |
| 26 | 129834.8367 | 0.019776157 | 0.00262902 | 0.014262913 | 0.025711955 |
| 27 | 134768.5102 | 0.019975989 | 0.003251229 | 0.012953343 | 0.025790556 |
| 28 | 139702.1837 | 0.019712406 | 0.003476855 | 0.013406384 | 0.026161379 |
| 29 | 144635.8571 | 0.020544123 | 0.003621168 | 0.013390332 | 0.027450521 |
| 30 | 149569.5306 | 0.022073204 | 0.004183518 | 0.01387674 | 0.030135448 |
| 31 | 154503.2041 | 0.022970365 | 0.004654003 | 0.014027839 | 0.030746143 |
| 32 | 159436.8776 | 0.019712421 | 0.004540018 | 0.011128474 | 0.028229083 |

**Table A14:** Treatment and Control Group Means and Sample Sizes by Median Income of Zip Code

| Zip Code | | Treatment | | | | | Control | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Max | Average | N | Mean | St Dev | Lower 95 CI | Upper 95 CI | N | Mean | St Dev | Lower 95 CI | Upper 95 CI |
| 7500 | 6493 | 4 | 0.0779 | 0.0037 | 0.0708 | 0.0857 | 18 | 0.0731 | 0.0015 | 0.0701 | 0.0759 |
| 12500 | 11426.67347 | 331 | 0.0766 | 0.0054 | 0.0659 | 0.0875 | 1862 | 0.0722 | 0.0022 | 0.0675 | 0.0762 |
| 17500 | 16360.34694 | 413 | 0.0806 | 0.004 | 0.0725 | 0.0885 | 2300 | 0.0758 | 0.0016 | 0.0726 | 0.0787 |
| 22500 | 21294.02041 | 1370 | 0.083 | 0.0033 | 0.0766 | 0.0893 | 7158 | 0.078 | 0.0013 | 0.0755 | 0.0806 |
| 27500 | 26227.69388 | 6984 | 0.0861 | 0.0027 | 0.0807 | 0.0909 | 36227 | 0.0809 | 0.001 | 0.079 | 0.0829 |
| 32500 | 31161.36735 | 9846 | 0.087 | 0.002 | 0.0833 | 0.0906 | 51911 | 0.0794 | 0.0008 | 0.078 | 0.0811 |
| 37500 | 36095.04082 | 17357 | 0.0846 | 0.0016 | 0.0814 | 0.0875 | 89659 | 0.0769 | 0.0007 | 0.0758 | 0.0782 |
| 42500 | 41028.71429 | 24205 | 0.0841 | 0.0013 | 0.0819 | 0.0869 | 125637 | 0.0763 | 0.0006 | 0.0751 | 0.0773 |
| 47500 | 45962.38776 | 20657 | 0.0864 | 0.0014 | 0.0835 | 0.0893 | 109119 | 0.0776 | 0.0005 | 0.0766 | 0.0787 |
| 52500 | 50896.06122 | 33290 | 0.0876 | 0.0014 | 0.0849 | 0.0906 | 171298 | 0.0802 | 0.0005 | 0.0792 | 0.0812 |
| 57500 | 55829.73469 | 22678 | 0.0936 | 0.0014 | 0.0906 | 0.0963 | 119416 | 0.0853 | 0.0005 | 0.0841 | 0.0862 |
| 62500 | 60763.40816 | 25523 | 0.0923 | 0.0013 | 0.0897 | 0.0947 | 131714 | 0.084 | 0.0005 | 0.083 | 0.0849 |
| 67500 | 65697.08163 | 18571 | 0.0926 | 0.0014 | 0.09 | 0.0953 | 96912 | 0.0838 | 0.0006 | 0.0827 | 0.0852 |
| 72500 | 70630.7551 | 15032 | 0.098 | 0.0015 | 0.0949 | 0.1012 | 78261 | 0.0863 | 0.0006 | 0.0852 | 0.0875 |
| 77500 | 75564.42857 | 16211 | 0.1003 | 0.0016 | 0.0976 | 0.1034 | 83207 | 0.0861 | 0.0006 | 0.085 | 0.0873 |
| 82500 | 80498.10204 | 12953 | 0.1008 | 0.0015 | 0.0976 | 0.1033 | 66793 | 0.0861 | 0.0006 | 0.0849 | 0.0873 |
| 87500 | 85431.77551 | 9812 | 0.1013 | 0.0016 | 0.0985 | 0.104 | 50619 | 0.0879 | 0.0007 | 0.0866 | 0.0891 |
| 92500 | 90365.44898 | 9451 | 0.1008 | 0.0016 | 0.0977 | 0.1042 | 49766 | 0.0902 | 0.0007 | 0.0889 | 0.0914 |
| 97500 | 95299.12245 | 7244 | 0.0993 | 0.0018 | 0.096 | 0.1029 | 37829 | 0.0902 | 0.0008 | 0.0886 | 0.0916 |
| 102500 | 100232.7959 | 7578 | 0.1 | 0.0019 | 0.0965 | 0.1036 | 39440 | 0.0903 | 0.0007 | 0.0887 | 0.0915 |
| 107500 | 105166.4694 | 6318 | 0.1016 | 0.0022 | 0.0973 | 0.1058 | 33327 | 0.091 | 0.0008 | 0.0894 | 0.0925 |
| 112500 | 110100.1429 | 5097 | 0.1023 | 0.0022 | 0.0986 | 0.1072 | 26307 | 0.0906 | 0.0008 | 0.089 | 0.092 |
| 117500 | 115033.8163 | 4138 | 0.1026 | 0.0022 | 0.0987 | 0.1069 | 21985 | 0.0892 | 0.001 | 0.0873 | 0.0908 |
| 122500 | 119967.4898 | 2894 | 0.1043 | 0.0023 | 0.0997 | 0.1085 | 15451 | 0.0882 | 0.001 | 0.0861 | 0.0899 |
| 127500 | 124901.1633 | 3327 | 0.107 | 0.0025 | 0.1025 | 0.1118 | 17273 | 0.0886 | 0.0011 | 0.0865 | 0.0906 |
| 132500 | 129834.8367 | 2999 | 0.11 | 0.0028 | 0.1051 | 0.1153 | 15628 | 0.0902 | 0.0012 | 0.088 | 0.0924 |
| 137500 | 134768.5102 | 2692 | 0.112 | 0.0032 | 0.1062 | 0.119 | 13440 | 0.092 | 0.0013 | 0.0897 | 0.0943 |
| 142500 | 139702.1837 | 1165 | 0.1108 | 0.0032 | 0.1053 | 0.1177 | 6327 | 0.0911 | 0.0013 | 0.0886 | 0.0935 |
| 147500 | 144635.8571 | 1465 | 0.1091 | 0.0033 | 0.1032 | 0.1164 | 7544 | 0.0885 | 0.0013 | 0.0859 | 0.0911 |
| 152500 | 149569.5306 | 1355 | 0.108 | 0.0038 | 0.1013 | 0.1155 | 7073 | 0.086 | 0.0015 | 0.0828 | 0.0886 |
| 157500 | 154503.2041 | 657 | 0.1074 | 0.0041 | 0.1001 | 0.115 | 3380 | 0.0845 | 0.0016 | 0.0812 | 0.0873 |
| 162500 | 159436.8776 | 725 | 0.1036 | 0.0039 | 0.0962 | 0.1108 | 4160 | 0.0839 | 0.0016 | 0.0805 | 0.0866 |

**Fig A1. Percent Effect of the Letter on N-400 Submission Overall and by Subgroups**: This figure presents the estimated intention-to-treat effects with 95% confidence intervals, expressed as the percent increase over the baseline N-400 submission rate in the control group. Effects are displayed for the overall sample as well as for specific subgroups.
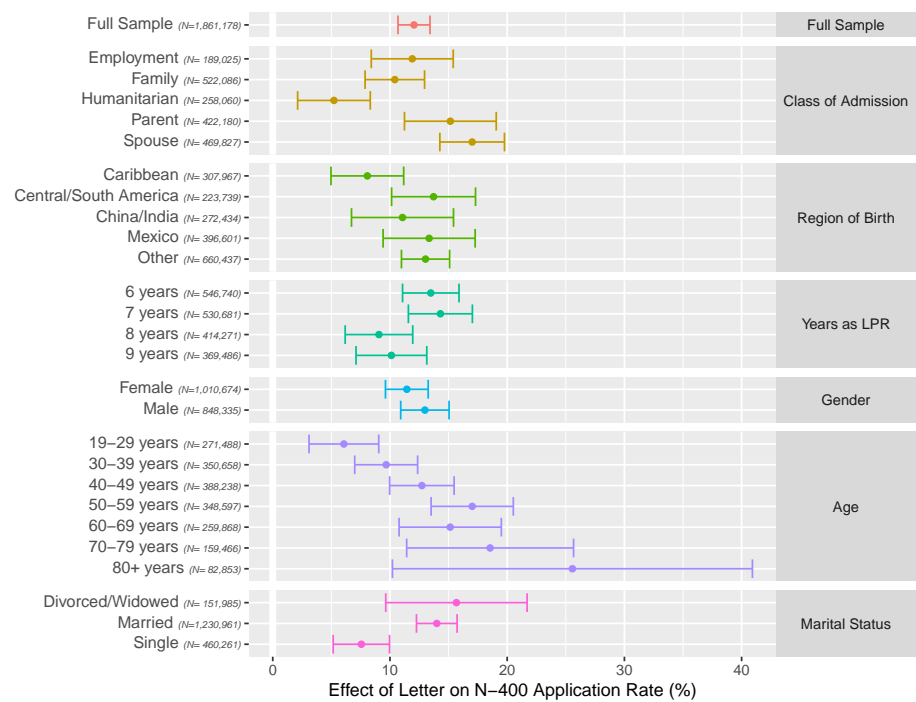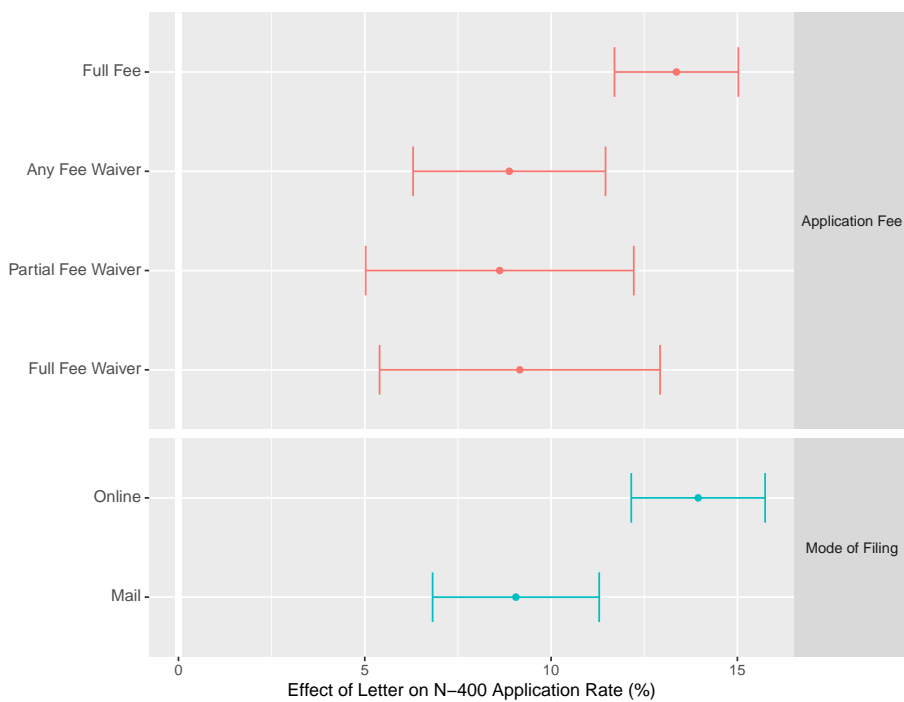
**Fig. A2. Effect of the Letter on N-400 Submission by Mode of Submission and Use of Fee Waiver**: This figure presents the estimated intention-to-treat effects with 95% confidence intervals, expressed as the percent increase over the mean outcome in the control group. The estimates cover the following outcomes: whether the N-400 application was filed online or by mail, and whether the applicant paid the full fee or used a partial or full fee waiver. (N=1,861,178)

U.S. Citizenship
and Immigration
Services

Michael Tilson Thomas
100 Main Street
Anycity, MD  99999

Dear Michael Thomas,

Good news! As a lawful permanent resident for over five years, you may be eligible to become a U.S. citizen through naturalization.

**Here's how to start your naturalization application now:**
1. Check your eligibility for naturalization online at www.uscis.gov.
2. Consider contacting an authorized immigrant legal service provider for advice, which may be provided for free or at a low cost.
3. Check your eligibility to obtain a fee waiver and potentially apply at a reduced fee or for free.
4. Create an account on my.uscis.gov.
5. Prepare your Form N-400, Application for Naturalization, and submit your application!

**The benefits of being a U.S. citizen include:**
- The right to remain in the United States;
- Eligibility for a U.S. passport to more easily travel internationally;
- The right to vote, hold elected office, and apply for certain federal and state jobs;
- Avoiding Green Card renewal fees and saving up to $540 per renewal application;
- The opportunity for citizenship for your children under 18 years of age; and
- The potential for improved employment and income, as some studies suggest.

Over 4.3 million Green Card holders like you have become citizens in the last five years, and more than 95 percent of applicants passed their naturalization test. Don't wait! Start today to enjoy the opportunity to fully participate and integrate into the United States as a citizen.

To access citizenship resources to help you prepare for the naturalization test, or to find out if you qualify for a test exception, please scan the QR code below or visit uscis.gov/naturalizenow.

Sincerely,

UR M. JADDOU
Director, U.S. Citizenship and Immigration Services

uscis.gov/naturalizenow

U.S. Citizenship
and Immigration
Services

¡Buenas noticias! Como residente permanente legal desde hace más de cinco años, usted puede ser elegible para convertirse en ciudadano estadounidense a través de la naturalización. Para leer esta carta en su idioma y acceder a los recursos de ciudadanía, escanee el código QR que aparece a continuación o visite uscis.gov/naturalizenow.

Magandang balita! Bilang isang residenteng masunurin sa batas nang mahigit limang taon, maaari kang maging karapat-dapat na mamamayan ng Estados Unidos sa pamamagitan ng naturalisasyon. Para mabasa itong sulat sa iyong wika at makakuha ng mapagkukunan sa pagkamamamayan, pakiscan ang QR code sa ibaba o bumista sa uscis.gov/naturalizenow.

أخبار جيدة! بصفتك مقيما دائما قانونيا لأكثر من خمس سنوات، قد تكون مؤهلا لأن تصبح مواطنا أمريكيا من خلال التجنس. لقراءة هذا الخطاب بلغتك والوصول إلى موارد الجنسية، يرجى مسح رمز الاستجابة السريعة أدناه أو زيارة uscis.gov/naturalizenow.
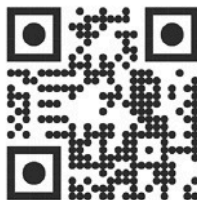
Bonne nouvelle ! En tant que résident permanent en règle depuis cinq ans, vous pouvez être éligible à l'acquisition de la nationalité américaine par naturalisation. Pour lire cette lettre dans votre langue et accéder aux ressources relatives à la nationalité, veuillez scanner le QR code ci-dessous ou consulter uscis.gov/naturalizenow.

Bon nouvèl! Antanke rezidan pèmanan legal depi plis pase senk (5) ane, ou gen dwa pou ou kapab kalifye pou ou vin yon sitwayen Ameriken lè ou natiralize. Pou ou li lèt sa nan lang ou pale a espi pou ou jwenn aksè ak enfòmasyon sou natiralizasyon, tanpri eskane kòd QR ki pi ba a oswa vizite sit uscis.gov/naturalizenow."

好消息！如作为合法永久居民已超过五年，您即可能有资格通过入籍成为美国公民。欲查阅使用您母语的本函版本以及其它有关公民身份的资料，请扫描下面的二维码或访问该网站：uscis.gov/naturalizenow。

좋은 소식! 5년 이상 합법적 영주권자로 있으면 귀화를 통해 미국 시민이 될 자격이 있을 수 있습니다. 이 편지를 한글로 읽고 또한 시민권 취득 자료에 접속하려면 아래 QR 코드를 스캔하거나 uscis.gov/naturalizenow를 방문하십시오.

Có tin mừng! Quý vị có thể hội đủ điều kiện trở thành công dân Hoa Kỳ qua quá trình nhập tịch, nếu là cư dân thường trú hợp pháp hơn 5 năm. Quét mã QR dưới đây hoặc vào mạng lưới uscis.gov/naturalizenow để đọc thư này bằng tiếng Việt và truy cập các nguồn thông tin về quyền công dân.

uscis.gov/naturalizenow