

Appendix CCC  
Logistic Regression Results

## **Appendix CCC: Logistic Regression Results**

### **Screeners**

The response variable was binary where 1 indicated that the case was a screener respondent and 0 a nonrespondent. The explanatory variables were coded as follows:

- Urban/rural status: 1=urban, 2=rural;
- State: the 50 states and the District of Columbia;
- Business status: 1=Single Location, 2=Headquarters;
- Industry type: 1= Construction/Mining, 2=Manufacturing, 3= Transportation, Communications and Utilities, 4=Wholesale Trade, 5=Retail Trade, 6= Finance, Insurance and Real Estate, 7= Non-classifiable Establishments/Business Services, and 8= Professional Services;
- Business type: 1= Proprietorship, 2=Partnership, and 3=Corporation;
- Number of employees; and
- Credit score percentile

The last two variables were continuous. Goodness-of-fit statistics indicated that the model provided a satisfactory fit to the data. For each categorical variable, the omitted category is the reference category.

**Table 0.1. Screener Estimated Coefficients, Standard Errors, the Wald Statistic and P-Values**

<b>Parameter</b>	<b>Estimate</b>	<b>Standard Error</b>	<b>Wald Chi-Square</b>	<b>Pr &gt; ChiSq</b>
Intercept	0.2521	0.0576	19.1674	<.0001
Urban/Rural: Rural	0.1403	0.0263	28.5388	<.0001
State: AK	-0.1063	0.2683	0.157	0.6919
State: AL	0.1612	0.1447	1.2407	0.2653
State: AR	0.0158	0.1898	0.007	0.9335
State: AZ	-0.2545	0.127	4.0162	0.0451
State: CA	-0.4192	0.0543	59.5646	<.0001
State: CO	0.0372	0.1167	0.1017	0.7498
State: CT	-0.3944	0.1347	8.5689	0.0034
State: DC	-0.4055	0.3085	1.7277	0.1887
State: DE	0.1264	0.2995	0.178	0.6731
State: FL	-0.4194	0.0673	38.8215	<.0001
State: GA	-0.1675	0.1029	2.6508	0.1035
State: HI	0.2703	0.2266	1.4234	0.2329
State: IA	0.1383	0.1831	0.571	0.4498
State: ID	0.3111	0.2556	1.4816	0.2235
State: IL	-0.1667	0.089	3.5091	0.061
State: IN	-0.1915	0.1326	2.0855	0.1487
State: KS	0.3703	0.1959	3.573	0.0587
State: KY	0.4057	0.1848	4.8194	0.0281
State: LA	0.2733	0.1442	3.5909	0.0581
State: MA	-0.448	0.1016	19.4287	<.0001
State: MD	-0.2122	0.1156	3.3696	0.0664
State: ME	0.2433	0.2518	0.9334	0.334
State: MI	-0.1657	0.0917	3.2627	0.0709
State: MN	0.1008	0.1295	0.6055	0.4365
State: MO	-0.0647	0.1208	0.2869	0.5922
State: MS	-0.051	0.2124	0.0577	0.8102
State: MT	0.7876	0.3415	5.3183	0.0211
State: NC	-0.0385	0.099	0.1511	0.6975
State: ND	0.6702	0.3988	2.8246	0.0928
State: NE	0.168	0.2315	0.5267	0.468
State: NH	-0.0096	0.2367	0.0016	0.9676
State: NJ	-0.4888	0.0944	26.809	<.0001
State: NM	-0.0825	0.2163	0.1453	0.7031
State: NV	-0.2405	0.1875	1.6461	0.1995
State: NY	-0.4063	0.0666	37.1862	<.0001
State: OH	-0.3362	0.0916	13.4838	0.0002
State: OK	-0.00489	0.1666	0.0009	0.9766
State: OR	0.0638	0.1371	0.2162	0.6419
State: PA	-0.0758	0.0854	0.7872	0.375

Table 0.1-continued

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
State: RI	-0.6521	0.2906	5.0358	0.0248
State: SC	-0.0696	0.1544	0.203	0.6523
State: SD	0.4934	0.4027	1.5013	0.2205
State: TN	0.0642	0.12	0.2861	0.5927
State: TX	-0.1983	0.0648	9.3499	0.0022
State: UT	0.3322	0.1785	3.4621	0.0628
State: VA	-0.1205	0.1124	1.1497	0.2836
State: VT	0.2298	0.3051	0.5673	0.4513
State: WA	-0.1161	0.1057	1.2076	0.2718
State: WI	0.254	0.1301	3.8122	0.0509
State: WV	0.4386	0.2726	2.5896	0.1076
Status: Headquarters	0.1571	0.0294	28.5593	<.0001
Total employees	0.00061	0.000327	3.4797	0.0621
Credit score percentile	0.0113	0.000579	383.1792	<.0001
Industry Type: Business Services & Nonclassified	-0.0597	0.0364	2.6902	0.101
Industry Type: Construction and Mining	-0.0942	0.0457	4.254	0.0392
Industry Type: Finance, Insurance & Real Estate	-0.1518	0.0631	5.7851	0.0162
Industry Type: Manufacturing	0.2208	0.0523	17.8464	<.0001
Industry Type: Professional Services	0.0289	0.0388	0.5564	0.4557
Industry Type: Retail Trade	0.0246	0.0377	0.4248	0.5145
Industry Type: Transportation, Communications & Utilities	-0.1825	0.0703	6.7373	0.0094
Business Type: Corporation	0.054	0.0297	3.3023	0.0692
Business Type: Proprietorship	-0.2339	0.0314	55.4315	<.0001

## Main

The response variable was binary where 1 indicated that the case was a main interview respondent and 0 a nonrespondent. The explanatory variables were the same as those used in the screener nonresponse logistic regression model except that business status (single-location versus headquarters) was replaced by screener respondent type. Screener respondent type was coded as: 1=Owner, 2=Proxy. Goodness of fit statistics indicated that the model provided a satisfactory fit to the data. For each categorical variable, the omitted category is the reference category.

**Table 0.2. Main Estimated Coefficients, Standard Errors, the Wald Statistic and P-Values**

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
Intercept	-0.1686	0.0707	5.6869	0.0171
Urban/Rural: Rural	0.1071	0.0331	10.459	0.0012
State: AK	-0.1156	0.3406	0.1152	0.7343
State: AL	0.1683	0.1844	0.833	0.3614
State: AR	-0.0639	0.2488	0.066	0.7973
State: AZ	-0.129	0.1775	0.5283	0.4673
State: CA	-0.123	0.0757	2.6393	0.1042
State: CO	0.1723	0.1538	1.254	0.2628
State: CT	-0.3954	0.19	4.3336	0.0374
State: DC	-0.0821	0.4453	0.034	0.8537
State: DE	-0.4885	0.3832	1.6253	0.2023
State: FL	-0.2389	0.0977	5.9765	0.0145
State: GA	-0.1395	0.1434	0.9461	0.3307
State: HI	-0.2136	0.2596	0.6767	0.4107
State: IA	-0.0547	0.225	0.0591	0.8079
State: ID	0.0172	0.2798	0.0038	0.9509
State: IL	-0.0452	0.1202	0.1411	0.7072
State: IN	0.3105	0.1786	3.0242	0.082
State: KS	0.3724	0.2333	2.5472	0.1105
State: KY	-0.0272	0.2088	0.017	0.8964
State: LA	-0.5962	0.1802	10.9466	0.0009
State: MA	0.0594	0.1468	0.1637	0.6858
State: MD	0.0981	0.1667	0.3462	0.5563
State: ME	0.2749	0.2948	0.8696	0.3511
State: MI	0.1027	0.1242	0.6838	0.4083
State: MN	0.367	0.1618	5.1424	0.0233
State: MO	0.2203	0.1597	1.9031	0.1677
State: MS	-0.5345	0.3021	3.1296	0.0769
State: MT	0.2293	0.3492	0.431	0.5115
State: NC	0.0226	0.13	0.0304	0.8616
State: ND	0.5013	0.4517	1.2317	0.2671
State: NE	0.0905	0.2851	0.1008	0.7509
State: NH	-0.1823	0.2951	0.3817	0.5367
State: NJ	-0.3559	0.1422	6.2652	0.0123
State: NM	-0.1466	0.2849	0.2647	0.6069
State: NV	0.0978	0.2668	0.1344	0.7139
State: NY	-0.3489	0.0962	13.1489	0.0003
State: OH	-0.1874	0.1278	2.1496	0.1426
State: OK	0.2398	0.2182	1.2074	0.2719
State: OR	-0.0298	0.1647	0.0328	0.8563
State: PA	-0.1199	0.1129	1.1278	0.2882
State: RI	-0.176	0.4329	0.1652	0.6844
State: SC	0.0588	0.2128	0.0763	0.7823

Table 0.2-continued

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq
State: SD	0.0486	0.418	0.0135	0.9074
State: TN	0.1006	0.1589	0.4009	0.5266
State: TX	-0.2993	0.0907	10.8945	0.001
State: UT	0.5179	0.2304	5.0521	0.0246
State: VA	-0.1961	0.1553	1.5929	0.2069
State: VT	-0.0573	0.3391	0.0285	0.8659
State: WA	0.112	0.1371	0.6671	0.4141
State: WI	0.3281	0.1515	4.6898	0.0303
State: WV	0.7425	0.3242	5.246	0.022
Total employees	-0.00125	0.000389	10.3147	0.0013
Credit score percentile	0.00217	0.000794	7.4326	0.0064
Industry Type: Business Services & Nonclassified	0.0665	0.0517	1.656	0.1981
Industry Type: Construction and Mining	-0.2481	0.0641	14.9735	0.0001
Industry Type: Finance, Insurance & Real Estate	0.0195	0.0871	0.0503	0.8226
Industry Type: Manufacturing	0.0908	0.0663	1.8731	0.1711
Industry Type: Professional Services	0.1211	0.0536	5.0986	0.0239
Industry Type: Retail Trade	-0.0486	0.0514	0.8947	0.3442
Industry Type: Transportation, Communications & Utilities	-0.084	0.0984	0.7285	0.3934
Business Type: Corporation	0.0187	0.04	0.219	0.6398
Business Type: Proprietorship	0.1203	0.043	7.8342	0.0051
Respondent Type: Owner	0.5166	0.0264	383.8382	<.0001