

ONLINE APPENDIX OF

Actively Keeping Secrets from Creditors: Evidence from the Uniform Trade Secrets Act

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FIGURE OA1

The Number of UTSA and IDD Adopting States by Year

Figure OA1 graphs the number of total states that have adopted the UTSA and IDD between 1980 and 2018. UTSA (IDD) adoptions are depicted with green circles (blue squares) and a solid (dashed) black line.

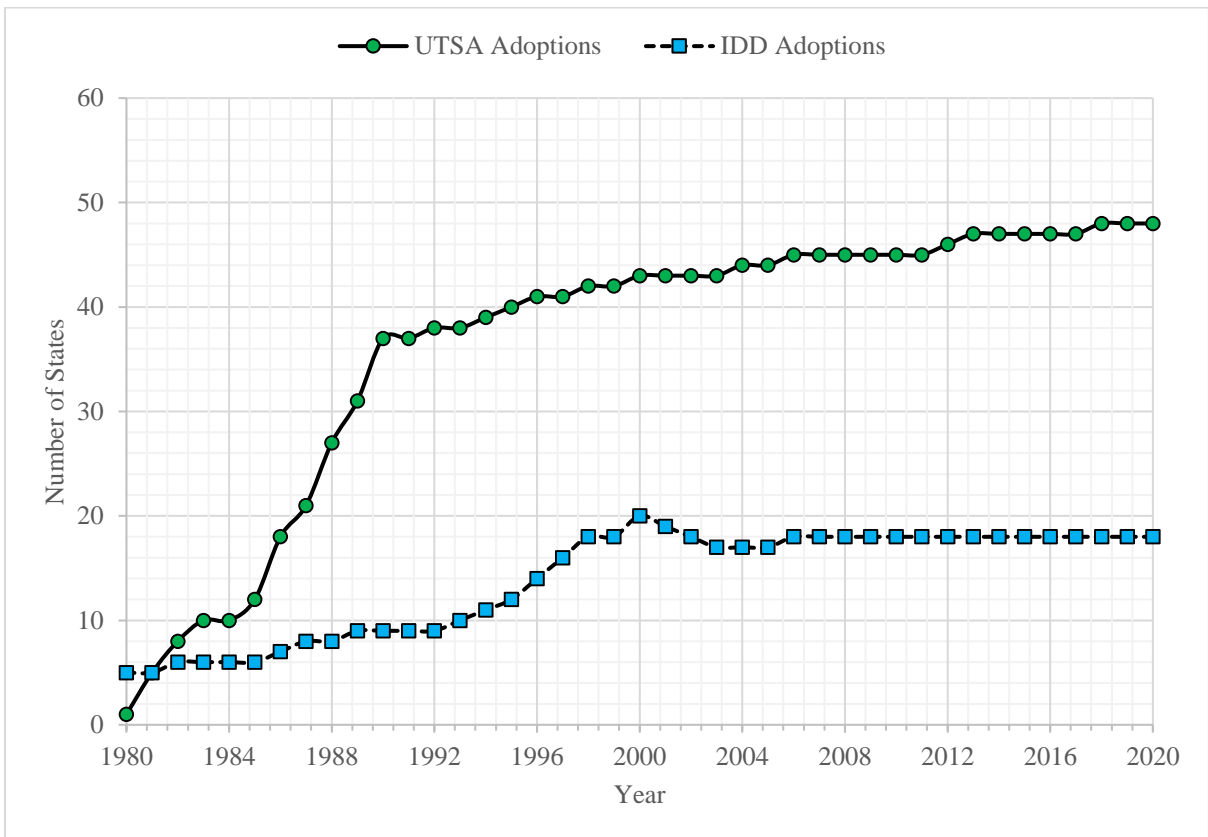


TABLE OA1

Alternative Industry Classification

Table OA1 reports results from panel regressions of measures of financial leverage on a UTSA indicator variable. We measure financial leverage using either a firm's book leverage (BLEV) or market leverage (MLEV). UTSA equals one if a firm's state of location has adopted the UTSA, and zero otherwise. Appendix Table A2 provides variable definitions. Industry dummies are defined by three-digit (instead of four-digit) SIC codes and region dummies are measured with U.S. Census regions. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (clustered by state of location) are reported in parentheses. *10%, **5%, and ***1% significance level.

TABLE OA1 (continued)

Variable	BLEV				MLEV			
	1	2	3	4	5	6	7	8
UTSA	-0.009** (-2.60)	-0.008** (-2.37)	-0.008** (-2.41)	-0.007** (-2.54)	-0.007** (-2.28)	-0.006** (-2.17)	-0.006** (-2.25)	-0.006** (-2.12)
ln(ASSETS)			0.033*** (11.27)	0.033*** (11.19)			0.036*** (9.72)	0.036*** (9.77)
MTB			-0.007*** (-9.21)	-0.007*** (-8.84)			-0.034*** (-10.73)	-0.034*** (-10.62)
ROA			-0.200*** (-18.50)	-0.200*** (-18.78)			-0.209*** (-11.09)	-0.209*** (-11.17)
FIXED_ASSETS			0.207*** (16.46)	0.207*** (16.77)			0.168*** (18.62)	0.169*** (18.92)
DIVIDEND			-0.037*** (-10.60)	-0.037*** (-10.60)			-0.052** (-12.82)	-0.052** (-12.78)
ln(GDPPC)			0.019 (1.01)	0.015 (0.66)			0.001 (0.06)	0.003 (0.13)
GDP_GROWTH			0.010 (0.56)	-0.005 (-0.24)			-0.121*** (-5.26)	-0.154*** (-6.54)
POLITICAL_REP			-0.010 (-1.44)	-0.006 (-0.98)			-0.017** (-2.52)	-0.014* (-1.84)
ATS			0.002 (1.36)	0.001 (1.14)			0.002 (1.08)	0.001 (0.85)
IDD			0.010*** (3.23)	0.008*** (2.75)			0.010** (2.57)	0.009** (2.30)
WDL			-0.006** (-2.43)	-0.008*** (-3.18)			-0.005* (-1.77)	-0.006** (-2.18)
FIRM_FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
REGION_YEAR_FE	No	Yes	No	Yes	No	Yes	No	Yes
No. of obs.	135,628	135,628	135,628	135,628	135,628	135,628	135,628	135,628
Adj. R ²	0.588	0.588	0.626	0.626	0.622	0.622	0.684	0.685

TABLE OA2

Matched Sample Summary Statistics

Table OA2 presents summary statistics for the variables used in the matched sample analysis in Table 6, Panel B. Appendix Table A2 provides variable definitions. All continuous variables are winsorized at the 2.5% and 97.5% levels and the dollar values are expressed in 2009 dollars.

Variable	Mean	Std. Dev.	P25	Median	P75	Obs.
BLEV	0.213	0.178	0.058	0.190	0.323	24,320
MLEV	0.215	0.204	0.033	0.159	0.346	24,320
ln(ASSETS)	5.030	2.050	3.487	4.870	6.422	24,320
MTB	1.910	1.422	1.058	1.407	2.126	24,320
ROA	0.044	0.182	0.040	0.090	0.132	24,320
FIXED_ASSETS	0.314	0.210	0.149	0.272	0.434	24,320
DIVIDEND	0.437	0.496	0.000	0.000	1.000	24,320
ln(GDPPC)	3.581	0.191	3.456	3.559	3.680	24,320
GDP_GROWTH	0.074	0.040	0.047	0.072	0.100	24,320
POLITICAL_REP	0.576	0.190	0.500	0.591	0.667	24,320
ATS	1.234	1.412	0.000	1.000	1.000	24,320
IDD	0.365	0.481	0.000	0.000	1.000	24,320
WDL	1.353	0.908	1.000	1.000	2.000	24,320

TABLE OA3

UTSA Adoptions and Patenting Activity

Table OA3 reports results from panel regressions of measures of patenting activity on a UTSA indicator variable. Measures of patenting activity include both an input (RD_SALE) and outputs ($\ln(1 + \text{PATENT})$, $\ln(1 + \text{CW_PATENT})$, and $\ln(1 + \text{SM_PATENT})$); SM_PATENT comes from Kogan, Papanikolaou, Seru, and Stoffman (2017). UTSA equals one if a firm's state of location has adopted the UTSA, and zero otherwise. Firm-level controls include: $\ln(\text{ASSETS})$, MTB, ROA, FIXED_ASSETS, and DIVIDEND. State-level controls include: $\ln(\text{GDPPC})$, GDP_GROWTH, POLITICAL_REP, ATS, IDD, and WDL. Appendix Table A2 and Online Appendix Table OA6 provide variable definitions. Industry dummies are defined by four-digit SIC codes and region dummies are measured with U.S. Census regions. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (clustered by state of location) are reported in parentheses. *10%, **5%, and ***1% significance level.

Variable	RD_SALE		$\ln(1 + \text{PATENT})$		$\ln(1 + \text{CW_PATENT})$		$\ln(1 + \text{SM_PATENT})$	
	1	2	3	4	5	6	7	8
UTSA	0.012** (2.04)	0.012** (2.08)	-0.009*** (-2.68)	-0.010*** (-3.24)	-0.067*** (-3.49)	-0.070*** (-3.59)	-0.065*** (-2.77)	-0.071*** (-2.81)
Firm-level controls	No	Yes	No	Yes	No	Yes	No	Yes
State-level controls	No	Yes	No	Yes	No	Yes	No	Yes
FIRM_FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
REGION_YEAR_FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. of obs.	135,628	135,628	121,031	121,031	121,031	121,031	121,031	121,031
Adj. R^2	0.788	0.792	0.829	0.833	0.763	0.768	0.804	0.816

TABLE OA4

UTSA Adoptions, Financial Distress, and Profitability

Table OA4 reports results from panel regressions of measures of financial distress or profitability on a UTSA indicator variable. In Panel A, we measure financial distress using either a modified Altman's Z-Score (MOD_Z_SCORE) or Ohlson's O-Score (O_SCORE). In Panel B, we measure profitability using a firm's return on assets (ROA) or profit margins (PROFIT_MARGIN). UTSA equals one if a firm's state of location has adopted the UTSA, and zero otherwise. Firm-level controls include: ln(ASSETS), MTB, ROA (excluded in Panel B), FIXED_ASSETS, and DIVIDEND. State-level controls include: ln(GDPPC), GDP_GROWTH, POLITICAL_REP, ATS, IDD, and WDL. Appendix Table A2 and Online Appendix Table OA6 provide variable definitions. Industry dummies are defined by four-digit SIC codes and region dummies are measured with U.S. Census regions. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (clustered by state of location) are reported in parentheses. *10%, **5%, and ***1% significance level.

TABLE OA4 (continued)

Variable	MOD_Z_SCORE		O_SCORE	
	1	2	3	4
<i>Panel A. Dependent Variables Measure Financial Distress</i>				
UTSA	0.046 (1.16)	0.042 (1.05)	-0.062 (-1.40)	-0.049 (-1.20)
Firm-level controls	No	Yes	No	Yes
State-level controls	No	Yes	No	Yes
FIRM_FE	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes
REGION_YEAR_FE	Yes	Yes	Yes	Yes
No. of obs.	135,628	135,628	133,127	133,127
Adj. R^2	0.744	0.783	0.430	0.478
Variable	ROA		PROFIT_MARGIN	
	1	2	3	4
<i>Panel B. Dependent Variables Measure Profitability</i>				
UTSA	0.002 (0.57)	0.001 (0.30)	0.023 (1.24)	0.022 (1.17)
Firm-level controls	No	Yes	No	Yes
State-level controls	No	Yes	No	Yes
FIRM_FE	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes
REGION_YEAR_FE	Yes	Yes	Yes	Yes
No. of obs.	135,627	135,627	128,095	128,095
Adj. R^2	0.653	0.675	0.641	0.647

TABLE OA5

UTSA Adoptions, Financial Distress, Profitability, and Financial Leverage

Table OA5 reports results from panel regressions of financial leverage (BLEV or MLEV) on a UTSA indicator variable and controls for financial distress and profitability measures. In Panel A, we measure financial distress using either a modified Altman's Z-Score (MOD_Z_SCORE) or Ohlson's O-Score (O_SCORE). In Panel B, we measure profitability using a firm's return on assets (ROA) or profit margins (PROFIT_MARGIN). We denote current measures of financial distress or profitability with a T, and one-year and two-year ahead measures with T1 and T2, respectively. UTSA equals one if a firm's state of location has adopted the UTSA, and zero otherwise. Firm-level controls include: ln(ASSETS), MTB, ROA (excluded in Panel B), FIXED_ASSETS, and DIVIDEND. State-level controls include: ln(GDPPC), GDP_GROWTH, POLITICAL_REP, ATS, IDD, and WDL. Appendix Table A2 and Online Appendix Table OA6 provide variable definitions. Industry dummies are defined by four-digit SIC codes and region dummies are measured with U.S. Census regions. All continuous variables are winsorized at the 2.5% level in both tails. *t*-statistics (clustered by state of location) are reported in parentheses. *10%, **5%, and ***1% significance level.

TABLE OA5 (continued)

Variable	BLEV		MLEV	
	1	2	3	4
<i>Panel A. Controlling for Expected Future Financial Distress</i>				
UTSA	-0.009** (-2.21)	-0.008** (-2.21)	-0.008** (-2.23)	-0.008** (-2.64)
MOD_Z_SCORE_T	-0.030*** (-15.05)		-0.024*** (-9.53)	
MOD_Z_SCORE_T1	0.002*** (3.61)		0.001*** (2.96)	
MOD_Z_SCORE_T2	0.001*** (2.89)		0.001** (2.27)	
O_SCORE_T		0.034*** (59.14)		0.026*** (26.30)
O_SCORE_T1		0.014*** (17.46)		0.012*** (14.86)
O_SCORE_T2		0.006*** (8.60)		0.006*** (9.87)
Firm-level controls	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes
FIRM_FE	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes
REGION_YEAR_FE	Yes	Yes	Yes	Yes
No. of obs.	108,298	106,463	108,298	106,463
Adj. R ²	0.667	0.752	0.725	0.773
Variable	BLEV		MLEV	
	1	2	3	4
<i>Panel B. Controlling for Expected Future Profitability</i>				
UTSA	-0.010** (-2.27)	-0.011** (-2.35)	-0.008** (-2.01)	-0.009** (-2.03)
ROA_T	-0.187*** (-15.34)		-0.209*** (-9.37)	
ROA_T1	0.063*** (11.67)		0.049*** (9.80)	
ROA_T2	0.045*** (8.81)		0.038*** (4.48)	
PROFIT_MARGIN_T		-0.013*** (-7.15)		-0.013*** (-9.12)
PROFIT_MARGIN_T1		0.010*** (7.59)		0.006** (5.16)
PROFIT_MARGIN_T2		0.008*** (5.51)		0.005** (3.43)
Firm-level controls	Yes	Yes	Yes	Yes
State-level controls	Yes	Yes	Yes	Yes
FIRM_FE	Yes	Yes	Yes	Yes
INDUSTRY_YEAR_FE	Yes	Yes	Yes	Yes
REGION_YEAR_FE	Yes	Yes	Yes	Yes
No. of obs.	108,296	99,712	108,296	99,712
Adj. R ²	0.647	0.630	0.711	0.698

TABLE OA6

Variable Definitions

Table OA6 provides the definition and data source for the variables used in the Online Appendix only.

CW_PATENT:	The citation-weighted value of a firm's patents in a given year. Data comes from the KPSS patent data.
MOD_Z_SCORE:	Modified Altman's Z-Score. Calculated from Compustat using the equation: $1.2 \times (wcap / at) + 1.4 \times (re / at) + 3.3 \times (ebit / at) + (sale / at)$.
O_SCORE:	Ohlson's O-Score. Calculated from Compustat using the equation: $1.32 - 0.407 \times \log(at) + 6.03 \times (lt / at) - 1.43 \times (wcap / at) + 0.076 \times (lct / act) - 1.72 \times (1 \text{ if } lt > at, 0 \text{ if otherwise}) - 2.37 \times (ni / at) - 1.83 \times (fopt / lt) + 0.285 \times (1 \text{ if } ni < 0 \text{ for the last two years, } 0 \text{ otherwise}) - 0.521 \times ((ni_t - ni_t1) / (ni_t + ni_t1))$.
PROFIT_MARGIN:	The sum of pre-tax income, interest expense, and depreciation and amortization all divided by total sales. Calculated from Compustat using $(pi + xin_t + dp) / sale$.
RD_SALE:	The ratio of R&D expenditure to total sales. Calculated from Compustat using $xrd / sale$.
SM_PATENT:	The stock market value of a firm's patents in a given year. Data comes from the KPSS patent data.
