

Broadband Economic Impact Calculator

Estimate of economic impacts from business adoption of eSolutions for selected geographies and industry profiles.

- These estimates are intended to provide guidance on the scale of economic impacts possible from meaningful use of broadband.

- SNG's evidence-based approach enables evaluation based on the best research available applied to selected geographic profiles.



Dashboard Metrics

Measure	Impact
Businesses Adopting	149
New Revenues / Business	\$55,000
Annual GDP	\$ 10.0 M
Annual Tax Revenues	\$ 0.36 M
Total New Jobs	140

Select a State Select a County (Leave blank for entire state; Select Multiple for more than one county)

Scenario Parameters	Inputs and outputs
Target Profile ^(1,2)	60% Rural
State	Alabama
County	Multiple
Total Households ⁽⁹⁾	96,553
Total Businesses (all industries/sizes) ^(3,4)	4,641
Selected Industries (Max. of 10)	Accommodation & Food Services Construction Finance & Insurance Health Care & Social Assistance Manufacturing / Processing Other services (exc. public admin) Professional & Technical Services Real Estate Retail Trade Wholesale Trade
Selected Employment Range	Less than 20
Total Businesses (selected industries/sizes)	3,603
% of Selected Industries	86.1%
% of ALL businesses	77.6%
Total Employment of Selected Industries ⁽²⁾	40,032
Selected Industries % of Total Employment	89.5%
Adoption Scenario	
Selected eSolutions (Max. of 5)	Selling goods or services Web site for organization Advertising and promotion Deliver services and content Customer service and support
Number of Selected eSolutions	5
% Increase in adoption	5.0%
Estimates of Direct Impacts from Adoption ⁽⁵⁾	
Total number of businesses adopting eSolutions	149
% of Total businesses in selected industries	4.1%
Total number of new eSolutions adoptions	374
Average new eSolutions per business adopting	2.5
Total incremental Revenue from new eSolutions	\$8,200,000
Total incremental Cost Savings from new eSolutions	\$536,000
Total incremental Direct Impact	\$8,736,000
Direct Impact Metrics	
Total annual revenues for adopting businesses	\$85,100,000
Total annual operating expenses for adopting businesses	\$49,200,000
Operating expenses as percentage of revenues	57.8%
Aggregate percent increase in revenues	9.6%
Aggregate percent cost savings	1.1%
Average incremental revenue per business adopting	\$55,000
Average cost saving per business adopting	\$3,600
Economic Impact Assessment ⁽⁶⁾	
Total Direct Output - Selected industries	\$8,730,000
Total Indirect Output - All Industries	\$3,690,000
Total Induced Output - All Industries	\$4,690,000
Total Incremental Output	\$17,110,000
Total Direct Jobs	80
Total Indirect Jobs	24
Total Induced Jobs	37
Total Incremental Job Creation ⁽⁶⁾	140
Total Incremental GDP ⁽⁷⁾	\$10,000,000
Total Incremental Household Earnings	\$5,100,000
Total Incremental State and Local Taxes	\$364,000
Total Incremental Federal Taxes	\$498,000
Economic Impact Metrics	
Average total incremental output per adopting business	\$115,000
Average direct jobs per adopting business	0.5
Average indirect and induced jobs per adopting business	0.4
Average incremental total taxes per adopting business	\$5,780
Average incremental GDP per adopting business	\$67,300
Average incremental Household Earnings	\$53

Scenario Parameter Selections			
Adopting	Select up to 10 Industries	All Businesses	Rank
10	<input checked="" type="checkbox"/> Accommodation & Food Services	384	5
	<input type="checkbox"/> Administrative & Support Services	138	11
	<input type="checkbox"/> Agriculture / Forestry / Fishing	51	15
	<input type="checkbox"/> Arts, Entertainment & Recreation	52	13
16	<input checked="" type="checkbox"/> Construction	336	6
	<input type="checkbox"/> Educational Services	28	16
13	<input checked="" type="checkbox"/> Finance & Insurance	399	4
20	<input checked="" type="checkbox"/> Health Care & Social Services	542	2
	<input type="checkbox"/> Information	52	13
9	<input checked="" type="checkbox"/> Manufacturing / Processing	317	8
21	<input checked="" type="checkbox"/> Other services (exc. public admin)	542	2
14	<input checked="" type="checkbox"/> Professional & Technical Services	335	7
7	<input checked="" type="checkbox"/> Real Estate	158	10
29	<input checked="" type="checkbox"/> Retail Trade	939	1
	<input type="checkbox"/> Transportation & Warehousing	137	12
10	<input checked="" type="checkbox"/> Wholesale Trade	231	9
149		4,641	
Adopting	Select Employment Ranges	All Industries	% of Bus.
84	<input checked="" type="checkbox"/> 1 - 4	2,349	50.5%
39	<input checked="" type="checkbox"/> 5 - 9	1,042	22.5%
26	<input checked="" type="checkbox"/> 10 - 19	606	13.2%
	<input type="checkbox"/> 20 - 49	416	9.0%
	<input type="checkbox"/> 50 - 99	129	2.8%
	<input type="checkbox"/> 100 - 249	72	1.5%
149		4,614	
Select Number of eSolutions		5	(Leave blank to manually select eSolutions below)
AND % Increase in adoption ⁽¹⁰⁾		5%	

OR Select up to 5 eSolutions and % increase in adoption		
Adoptions	eSolutions	% Increase ⁽¹⁰⁾ Not Using
87	<input type="checkbox"/> Selling goods or services	44.3%
	<input type="checkbox"/> Purchasing goods or services	17.4%
40	<input type="checkbox"/> Web site for organization	12.3%
67	<input type="checkbox"/> Advertising and promotion	30.2%
117	<input type="checkbox"/> Deliver services and content	55.5%
63	<input type="checkbox"/> Customer service and support	28.8%
	<input type="checkbox"/> Banking and financial	24.7%
	<input type="checkbox"/> Research by staff	9.9%
	<input type="checkbox"/> Electronic document transfer	10.3%
	<input type="checkbox"/> Supplier communication and coordination	16.1%
	<input type="checkbox"/> Access government information	15.5%
	<input type="checkbox"/> Government transactions	30.3%
	<input type="checkbox"/> Staff training and skills development	26.7%
	<input type="checkbox"/> Teleworking	44.4%
	<input type="checkbox"/> Accessing collaborative tools	30.0%
	<input type="checkbox"/> Social networking	29.7%
	<input type="checkbox"/> Multimedia content or service creation	50.8%

Selected Counties (Multiple Selection)		All Businesses
1	Colbert	1,225
2	Franklin	510
3	Lauderdale	1,964
4	Marion	545
5	Winston	438
6		
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14		
15		
374		4,682

Selecting Industries

Select up to 10 industries with sufficient businesses to provide a base for increasing adoption of new online business practices (eSolutions). A base of 1,500 Total Businesses (selected industries/sizes) is recommended for a reliable estimate of impacts.

Multiple county selections may be required to provide a base of business population sufficient for estimating the financial, economic, and employment impacts. Business populations are provided for guidance.

The estimated number of businesses adopting new eSolutions are shown for each industry selected.

Select target business sizes using employment size ranges from 1 up to 249 employees. Counts are provided for all industries listed above.

Selection of businesses with 250 employees or more is not provided due to insufficient data for analysis of this segment.

Selecting eSolutions

eSolutions are typical business practices that can be enabled or enhanced through online methods.

Option 1 - Auto Selection

Select the number of eSolutions to include and the percent increase in adoption. The most impactful eSolutions will be automatically selected.

Option 2 - Manual Selection

Select up to 5 eSolutions and the target percent increase in adoption for each.

With either option the target increase in adoption is applied to each selected industry. Estimated new adoptions are shown for each selected eSolution.

Notes

- Industry profiles are based on USCB County Business Patterns (2013)
- Employment is total for all business sizes. USCB CBP data does not provide a breakdown by employment size range.
- Analysis does not include Public Administration sector (not included in USCB CBP data)
- Mining, Utilities, and Management of Companies are not included for selection due to small numbers of businesses.
- Direct financial impacts for eSolutions adoption are based on SNG research
- Direct, indirect, and induced job impacts are based on I-O modeling and are one-time impacts based on stimulus from new adoptions.
- GDP and Tax impacts are based on I-O modelling
- I-O model uses nominal statewide BEA factors as a proxy for estimation
- Household counts are from USCB 2010 census data
- Percent increase applied to percentage of businesses not currently using the eSolution, by industry and size.
- Financial impacts are annualized based on fully realized benefits from new adoptions.
- Rural percentages based on USCB 2010 data for percent urban population by county.

For more information about the Broadband Economic Impact Calculator, visit: <http://www.sngroup.com/impact>

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Nominal Tax Rates Used *

State & Local

Individual Income Tax 3.4%

Corporate Income Tax 0.4%

Sales & Other Indirect Taxes 1.5%

Federal

Individual Income Tax 6.2%

Corporate Income Tax 0.8%

Other Taxes 0.4%

* Applied to gross output or gross income

Broadband Economic Impact Calculator

Estimate of economic impacts from business adoption of eSolutions for selected geographies and industry profiles.

- These estimates are intended to provide guidance on the scale of economic impacts possible from meaningful use of broadband.

- SNG's evidence-based approach enables evaluation based on the best research available applied to selected geographic profiles.



Dashboard Metrics

Measure	Impact
Businesses Adopting	4,405
New Revenues / Business	\$53,700
Annual GDP	\$ 298.0 M
Annual Tax Revenues	\$ 11.20 M
Total New Jobs	4,271

Select a State Select a County (Leave blank for entire state; Select Multiple for more than one county)

Scenario Parameters	Inputs and outputs
Target Profile ^(1,2)	14% Rural
State	Colorado
County	All
Total Households ⁽⁹⁾	1,972,868
Total Businesses (all industries/sizes) ^(3,4)	151,942
Selected Industries (Max. of 10)	Accommodation & Food Services Administrative & Support Services Construction Finance & Insurance Health Care & Social Assistance Other services (exc. public admin) Professional & Technical Services Real Estate Retail Trade Wholesale Trade
Selected Employment Range	Less than 20
Total Businesses (selected industries/sizes)	120,029
% of Selected Industries	88.7%
% of ALL businesses	79.0%
Total Employment of Selected Industries ⁽²⁾	1,554,355
Selected Industries % of Total Employment	81.5%
Adoption Scenario	
Selected eSolutions (Max. of 5)	Selling goods or services Web site for organization Advertising and promotion Deliver services and content Customer service and support
Number of Selected eSolutions	5
% Increase in adoption	5.0%
Estimates of Direct Impacts from Adoption ⁽⁵⁾	
Total number of businesses adopting eSolutions	4,405
% of Total businesses in selected industries	3.7%
Total number of new eSolutions adoptions	12,311
Average new eSolutions per business adopting	2.8
Total incremental Revenue from new eSolutions	\$237,000,000
Total incremental Cost Savings from new eSolutions	\$14,700,000
Total incremental Direct Impact	\$251,700,000
Direct Impact Metrics	
Total annual revenues for adopting businesses	\$1,830,000,000
Total annual operating expenses for adopting businesses	\$1,050,000,000
Operating expenses as percentage of revenues	57.4%
Aggregate percent increase in revenues	13.0%
Aggregate percent cost savings	1.4%
Average incremental revenue per business adopting	\$53,700
Average cost saving per business adopting	\$3,340
Economic Impact Assessment ⁽⁶⁾	
Total Direct Output - Selected industries	\$251,000,000
Total Indirect Output - All Industries	\$105,000,000
Total Induced Output - All Industries	\$141,000,000
Total Incremental Output	\$497,000,000
Total Direct Jobs	2,486
Total Indirect Jobs	698
Total Induced Jobs	1,108
Total Incremental Job Creation ⁽⁶⁾	4,271
Total Incremental GDP ⁽⁷⁾	\$298,000,000
Total Incremental Household Earnings	\$153,000,000
Total Incremental State and Local Taxes	\$11,200,000
Total Incremental Federal Taxes	\$15,300,000
Economic Impact Metrics	
Average total incremental output per adopting business	\$113,000
Average direct jobs per adopting business	0.6
Average indirect and induced jobs per adopting business	0.4
Average incremental total taxes per adopting business	\$6,010
Average incremental GDP per adopting business	\$67,700
Average incremental Household Earnings	\$78

Scenario Parameter Selections			
Adopting	Select up to 10 Industries	All Businesses ⁽⁴⁾	Rank
288	<input checked="" type="checkbox"/> Accommodation & Food Services	12,966	6
260	<input checked="" type="checkbox"/> Administrative & Support Services	8,534	9
	<input type="checkbox"/> Agriculture / Forestry / Fishing	314	16
	<input type="checkbox"/> Arts, Entertainment & Recreation	2,520	14
683	<input checked="" type="checkbox"/> Construction	15,885	3
	<input type="checkbox"/> Educational Services	2,433	15
271	<input checked="" type="checkbox"/> Finance & Insurance	9,914	7
561	<input checked="" type="checkbox"/> Health Care & Social Services	15,081	4
	<input type="checkbox"/> Information	3,031	13
	<input type="checkbox"/> Manufacturing / Processing	4,866	11
461	<input checked="" type="checkbox"/> Other services (exc. public admin)	13,243	5
807	<input checked="" type="checkbox"/> Professional & Technical Services	24,316	1
308	<input checked="" type="checkbox"/> Real Estate	9,545	8
531	<input checked="" type="checkbox"/> Retail Trade	18,593	2
	<input type="checkbox"/> Transportation & Warehousing	3,457	12
235	<input checked="" type="checkbox"/> Wholesale Trade	7,244	10
4,405		151,942	
Adopting	Select Employment Ranges	All Industries ⁽⁴⁾	% of Bus.
3,133	<input checked="" type="checkbox"/> 1 - 4	90,603	59.4%
794	<input checked="" type="checkbox"/> 5 - 9	25,830	17.0%
478	<input checked="" type="checkbox"/> 10 - 19	17,291	11.4%
	<input type="checkbox"/> 20 - 49	11,681	7.8%
	<input type="checkbox"/> 50 - 99	3,745	2.5%
	<input type="checkbox"/> 100 - 249	2,045	1.4%
4,405		151,195	
AND	Select Number of eSolutions	5	(Leave blank to manually select eSolutions below)
	% Increase in adoption ⁽¹⁰⁾	5%	

OR	Select up to 5 eSolutions and % increase in adoption	% Increase ⁽¹⁰⁾	Not Using
2,925	<input type="checkbox"/> Selling goods or services		45.7%
	<input type="checkbox"/> Purchasing goods or services		18.3%
1,289	<input type="checkbox"/> Web site for organization		12.2%
2,300	<input type="checkbox"/> Advertising and promotion		29.9%
3,753	<input type="checkbox"/> Deliver services and content		55.3%
2,044	<input type="checkbox"/> Customer service and support		29.0%
	<input type="checkbox"/> Banking and financial		24.4%
	<input type="checkbox"/> Research by staff		10.1%
	<input type="checkbox"/> Electronic document transfer		10.5%
	<input type="checkbox"/> Supplier communication and coordination		17.1%
	<input type="checkbox"/> Access government information		15.7%
	<input type="checkbox"/> Government transactions		30.3%
	<input type="checkbox"/> Staff training and skills development		25.5%
	<input type="checkbox"/> Teleworking		43.8%
	<input type="checkbox"/> Accessing collaborative tools		29.6%
	<input type="checkbox"/> Social networking		28.6%
	<input type="checkbox"/> Multimedia content or service creation		49.4%

12,311	Selected Counties (Multiple Selection)	All Businesses ⁽⁴⁾
1		
2		
3		
4		
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12		
13		
14		
15		
0		

Selecting Industries

Select up to 10 industries with sufficient businesses to provide a base for increasing adoption of new online business practices (eSolutions). A base of 1,500 Total Businesses (selected industries/sizes) is recommended for a reliable estimate of impacts.

Multiple county selections may be required to provide a base of business population sufficient for estimating the financial, economic, and employment impacts. Business populations are provided for all industries listed above.

The estimated number of businesses adopting new eSolutions are shown for each industry selected.

Select target business sizes using employment size ranges from 1 up to 249 employees. Counts are provided for all industries listed above.

Selection of businesses with 250 employees or more is not provided due to insufficient data for analysis of this segment.

Selecting eSolutions

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Option 1 - Auto Selection

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Option 2 - Manual Selection

Select up to 5 eSolutions and the target percent increase in adoption for each.

With either option the target increase in adoption is applied to each selected industry. Estimated new adoptions are shown for each selected eSolutions.

Notes

- Industry profiles are based on USCB County Business Patterns (2013)
- Employment is total for all business sizes. USCB CBP data does not provide a breakdown by employment size range.
- Analysis does not include Public Administration sector (not included in USCB CBP data)
- Mining, Utilities, and Management of Companies are not included for selection due to small numbers of businesses.
- Direct financial impacts for eSolutions adoption are based on SNG research
- Direct, indirect, and induced job impacts are based on I-O modeling and are one-time impacts based on stimulus from new adoptions.
- GDP and Tax impacts are based on I-O modelling
- I-O model uses nominal statewide BEA factors as a proxy for estimation
- Household counts are from USCB 2010 census data
- Percent increase applied to percentage of businesses not currently using the eSolutions, by industry and size.
- Financial impacts are annualized based on fully realized benefits from new adoptions.
- Rural percentages based on USCB 2010 data for percent urban population by county.

For more information about the Broadband Economic Impact Calculator, visit: <http://www.sngroup.com/impact>

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Nominal Tax Rates Used *

State & Local	
Individual Income Tax	3.4%
Corporate Income Tax	0.4%
Sales & Other Indirect Taxes	1.5%
Federal	
Individual Income Tax	6.2%
Corporate Income Tax	0.8%
Other Taxes	0.4%

* Applied to gross output or gross income

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Dashboard Metrics

Measure	Impact
Businesses Adopting	15,296
New Revenues / Business	\$53,000
Annual GDP	\$ 1,020.0 M
Annual Tax Revenues	\$ 38.50 M
Total New Jobs	14,893

Select a State Select a County (Leave blank for entire state; Select Multiple for more than one county)

Scenario Parameters	Inputs and outputs
Target Profile ^(1,2)	13% Rural
State	New York
County	All
Total Households ⁽⁹⁾	7,317,755
Total Businesses (all industries/sizes) ^(3,4)	527,946
Selected Industries (Max. of 10)	Accommodation & Food Services Administrative & Support Services Construction Finance & Insurance Health Care & Social Assistance Other services (exc. public admin) Professional & Technical Services Real Estate Retail Trade Wholesale Trade
Selected Employment Range	Less than 20
Total Businesses (selected industries/sizes)	417,997
% of Selected Industries	89.4%
% of ALL businesses	79.2%
Total Employment of Selected Industries ⁽²⁾	5,785,192
Selected Industries % of Total Employment	80.2%
Adoption Scenario	
Selected eSolutions (Max. of 5)	Selling goods or services Web site for organization Advertising and promotion Deliver services and content Customer service and support
Number of Selected eSolutions	5
% Increase in adoption	5.0%
Estimates of Direct Impacts from Adoption ⁽⁵⁾	
Total number of businesses adopting eSolutions	15,296
% of Total businesses in selected industries	3.7%
Total number of new eSolutions adoptions	42,855
Average new eSolutions per business adopting	2.8
Total incremental Revenue from new eSolutions	\$811,000,000
Total incremental Cost Savings from new eSolutions	\$50,300,000
Total incremental Direct Impact	\$861,300,000
Direct Impact Metrics	
Total annual revenues for adopting businesses	\$6,190,000,000
Total annual operating expenses for adopting businesses	\$3,610,000,000
Operating expenses as percentage of revenues	58.3%
Aggregate percent increase in revenues	13.1%
Aggregate percent cost savings	1.4%
Average incremental revenue per business adopting	\$53,000
Average cost saving per business adopting	\$3,290
Economic Impact Assessment ⁽⁶⁾	
Total Direct Output - Selected industries	\$861,000,000
Total Indirect Output - All Industries	\$363,000,000
Total Induced Output - All Industries	\$482,000,000
Total Incremental Output	\$1,706,000,000
Total Direct Jobs	8,782
Total Indirect Jobs	2,386
Total Induced Jobs	3,798
Total Incremental Job Creation ⁽⁶⁾	14,893
Total Incremental GDP ⁽⁷⁾	\$1,020,000,000
Total Incremental Household Earnings	\$525,000,000
Total Incremental State and Local Taxes	\$38,500,000
Total Incremental Federal Taxes	\$52,500,000
Economic Impact Metrics	
Average total incremental output per adopting business	\$112,000
Average direct jobs per adopting business	0.6
Average indirect and induced jobs per adopting business	0.4
Average incremental total taxes per adopting business	\$5,950
Average incremental GDP per adopting business	\$66,800
Average incremental Household Earnings	\$72

Scenario Parameter Selections			
Adopting	Select up to 10 Industries	All Businesses	Rank
1,304	<input checked="" type="checkbox"/> Accommodation & Food Services	50,978	5
815	<input checked="" type="checkbox"/> Administrative & Support Services	26,236	10
	<input type="checkbox"/> Agriculture / Forestry / Fishing	598	16
	<input type="checkbox"/> Arts, Entertainment & Recreation	11,880	13
1,995	<input checked="" type="checkbox"/> Construction	46,019	6
	<input type="checkbox"/> Educational Services	7,933	15
722	<input checked="" type="checkbox"/> Finance & Insurance	28,160	9
2,065	<input checked="" type="checkbox"/> Health Care & Social Services	56,770	3
	<input type="checkbox"/> Information	11,286	14
	<input type="checkbox"/> Manufacturing / Processing	16,165	11
2,001	<input checked="" type="checkbox"/> Other services (exc. public admin)	56,279	4
1,956	<input checked="" type="checkbox"/> Professional & Technical Services	60,406	2
1,020	<input checked="" type="checkbox"/> Real Estate	32,145	8
2,329	<input checked="" type="checkbox"/> Retail Trade	78,052	1
	<input type="checkbox"/> Transportation & Warehousing	12,364	12
1,089	<input checked="" type="checkbox"/> Wholesale Trade	32,675	7
15,296		527,946	
Adopting	Select Employment Ranges	All Industries	% of Bus.
11,024	<input checked="" type="checkbox"/> 1 - 4	321,224	60.7%
2,691	<input checked="" type="checkbox"/> 5 - 9	87,913	16.6%
1,581	<input checked="" type="checkbox"/> 10 - 19	57,584	10.9%
	<input type="checkbox"/> 20 - 49	38,249	7.3%
	<input type="checkbox"/> 50 - 99	12,495	2.4%
	<input type="checkbox"/> 100 - 249	7,168	1.4%
15,296		524,633	
	Select Number of eSolutions	5	(Leave blank to manually select eSolutions below)
AND	% Increase in adoption ⁽¹⁰⁾	5%	

OR	Select up to 5 eSolutions and % increase in adoption	% Increase	Not Using
10,065	<input type="checkbox"/> Selling goods or services		45.7%
	<input type="checkbox"/> Purchasing goods or services		18.3%
4,407	<input type="checkbox"/> Web site for organization		12.2%
7,853	<input type="checkbox"/> Advertising and promotion		29.9%
13,300	<input type="checkbox"/> Deliver services and content		55.3%
7,230	<input type="checkbox"/> Customer service and support		29.0%
	<input type="checkbox"/> Banking and financial		24.4%
	<input type="checkbox"/> Research by staff		10.1%
	<input type="checkbox"/> Electronic document transfer		10.5%
	<input type="checkbox"/> Supplier communication and coordination		17.1%
	<input type="checkbox"/> Access government information		15.7%
	<input type="checkbox"/> Government transactions		30.3%
	<input type="checkbox"/> Staff training and skills development		25.5%
	<input type="checkbox"/> Teleworking		43.8%
	<input type="checkbox"/> Accessing collaborative tools		29.6%
	<input type="checkbox"/> Social networking		28.6%
	<input type="checkbox"/> Multimedia content or service creation		49.4%

42,855	Selected Counties (Multiple Selection)	All Businesses
1		
2		
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15		

Selecting Industries
 Select up to 10 industries with sufficient businesses to provide a base for increasing adoption of new online business practices (eSolutions). A base of 1,500 Total Businesses (selected industries/sizes) is recommended for a reliable estimate of impacts.

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Option 2 - Manual Selection
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With either option the target increase in adoption is applied to each selected industry. Estimated new adoptions are shown for each selected eSolutions.

Nominal Tax Rates Used *

State & Local	
Individual Income Tax	3.4%
Corporate Income Tax	0.4%
Sales & Other Indirect Taxes	1.5%
Federal	
Individual Income Tax	6.2%
Corporate Income Tax	0.8%
Other Taxes	0.4%

* Applied to gross output or gross income

- Notes**
- Industry profiles are based on USCB County Business Patterns (2013)
 - Employment is total for all business sizes. USCB CBP data does not provide a breakdown by employment size range.
 - Analysis does not include Public Administration sector (not included in USCB CBP data)
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 - GDP and Tax impacts are based on I-O modelling
 - I-O model uses nominal statewide BEA factors as a proxy for estimation
 - Household counts are from USCB 2010 census data
 - Percent increase applied to percentage of businesses not currently using the eSolutions, by industry and size.
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Dashboard Metrics

Measure	Impact
Businesses Adopting	1,749
New Revenues / Business	\$58,300
Annual GDP	\$ 129.0 M
Annual Tax Revenues	\$ 4.74 M
Total New Jobs	1,878

Select a State Select a County (Leave blank for entire state; Select Multiple for more than one county)

Scenario Parameters	Inputs and outputs
Target Profile ^(1,2)	44% Rural
State	Arkansas
County	All
Total Households ⁽⁹⁾	1,143,084
Total Businesses (all industries/sizes) ^(3,4)	62,804
Selected Industries (Max. of 10)	Accommodation & Food Services Administrative & Support Services Construction Finance & Insurance Health Care & Social Assistance Other services (exc. public admin) Professional & Technical Services Real Estate Retail Trade Wholesale Trade
Selected Employment Range	Less than 20
Total Businesses (selected industries/sizes)	47,934
% of Selected Industries	87.6%
% of ALL businesses	76.3%
Total Employment of Selected Industries ⁽²⁾	574,496
Selected Industries % of Total Employment	80.0%
Adoption Scenario	
Selected eSolutions (Max. of 5)	Selling goods or services Web site for organization Advertising and promotion Deliver services and content Customer service and support
Number of Selected eSolutions	5
% Increase in adoption	5.0%
Estimates of Direct Impacts from Adoption ⁽⁵⁾	
Total number of businesses adopting eSolutions	1,749
% of Total businesses in selected industries	3.6%
Total number of new eSolutions adoptions	4,853
Average new eSolutions per business adopting	2.8
Total incremental Revenue from new eSolutions	\$102,000,000
Total incremental Cost Savings from new eSolutions	\$6,530,000
Total incremental Direct Impact	\$108,530,000
Direct Impact Metrics	
Total annual revenues for adopting businesses	\$833,000,000
Total annual operating expenses for adopting businesses	\$478,000,000
Operating expenses as percentage of revenues	57.4%
Aggregate percent increase in revenues	12.2%
Aggregate percent cost savings	1.4%
Average incremental revenue per business adopting	\$58,300
Average cost saving per business adopting	\$3,730
Economic Impact Assessment ⁽⁶⁾	
Total Direct Output - Selected industries	\$109,000,000
Total Indirect Output - All Industries	\$45,300,000
Total Induced Output - All Industries	\$60,300,000
Total Incremental Output	\$214,600,000
Total Direct Jobs	1,114
Total Indirect Jobs	298
Total Induced Jobs	474
Total Incremental Job Creation ⁽⁶⁾	1,878
Total Incremental GDP ⁽⁷⁾	\$129,000,000
Total Incremental Household Earnings	\$65,600,000
Total Incremental State and Local Taxes	\$4,740,000
Total Incremental Federal Taxes	\$6,370,000
Economic Impact Metrics	
Average total incremental output per adopting business	\$122,000
Average direct jobs per adopting business	0.6
Average indirect and induced jobs per adopting business	0.4
Average incremental total taxes per adopting business	\$6,350
Average incremental GDP per adopting business	\$73,500
Average incremental Household Earnings	\$57

Scenario Parameter Selections			
Adopting	Select up to 10 Industries	All Businesses ⁽⁴⁾	Rank
117	<input checked="" type="checkbox"/> Accommodation & Food Services	5,441	5
79	<input checked="" type="checkbox"/> Administrative & Support Services	2,625	10
	<input type="checkbox"/> Agriculture / Forestry / Fishing	654	15
	<input type="checkbox"/> Arts, Entertainment & Recreation	814	14
219	<input checked="" type="checkbox"/> Construction	5,173	6
	<input type="checkbox"/> Educational Services	646	16
120	<input checked="" type="checkbox"/> Finance & Insurance	4,388	7
268	<input checked="" type="checkbox"/> Health Care & Social Services	7,526	2
	<input type="checkbox"/> Information	971	13
	<input type="checkbox"/> Manufacturing / Processing	2,610	11
235	<input checked="" type="checkbox"/> Other services (exc. public admin)	6,611	3
193	<input checked="" type="checkbox"/> Professional & Technical Services	5,756	4
91	<input checked="" type="checkbox"/> Real Estate	2,822	9
317	<input checked="" type="checkbox"/> Retail Trade	10,915	1
	<input type="checkbox"/> Transportation & Warehousing	2,364	12
110	<input checked="" type="checkbox"/> Wholesale Trade	3,488	8
1,749		62,804	
Adopting	Select Employment Ranges	All Industries ⁽⁴⁾	% of Bus.
1,117	<input checked="" type="checkbox"/> 1 - 4	32,751	51.7%
405	<input checked="" type="checkbox"/> 5 - 9	13,284	21.1%
227	<input checked="" type="checkbox"/> 10 - 19	8,252	13.3%
	<input type="checkbox"/> 20 - 49	5,506	9.0%
	<input type="checkbox"/> 50 - 99	1,734	2.8%
	<input type="checkbox"/> 100 - 249	866	1.5%
1,749		62,393	
AND	Select Number of eSolutions	5	(Leave blank to manually select eSolutions below)
	% Increase in adoption ⁽¹⁰⁾	5%	

OR	Select up to 5 eSolutions and % increase in adoption	% Increase ⁽¹⁰⁾	Not Using
1,148	<input type="checkbox"/> Selling goods or services		45.7%
	<input type="checkbox"/> Purchasing goods or services		18.3%
489	<input type="checkbox"/> Web site for organization		12.2%
884	<input type="checkbox"/> Advertising and promotion		29.9%
1,521	<input type="checkbox"/> Deliver services and content		55.3%
811	<input type="checkbox"/> Customer service and support		29.0%
	<input type="checkbox"/> Banking and financial		24.4%
	<input type="checkbox"/> Research by staff		10.1%
	<input type="checkbox"/> Electronic document transfer		10.5%
	<input type="checkbox"/> Supplier communication and coordination		17.1%
	<input type="checkbox"/> Access government information		15.7%
	<input type="checkbox"/> Government transactions		30.3%
	<input type="checkbox"/> Staff training and skills development		25.5%
	<input type="checkbox"/> Teleworking		43.8%
	<input type="checkbox"/> Accessing collaborative tools		29.6%
	<input type="checkbox"/> Social networking		28.6%
	<input type="checkbox"/> Multimedia content or service creation		49.4%
4,853			0

Selected Counties (Multiple Selection)	All Businesses ⁽⁴⁾
1	
2	
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Selecting Industries

Select up to 10 industries with sufficient businesses to provide a base for increasing adoption of new online business practices (eSolutions). A base of 1,500 Total Businesses (selected industries/sizes) is recommended for a reliable estimate of impacts.

Multiple county selections may be required to provide a base of business population sufficient for estimating the financial, economic, and employment impacts. Business populations are provided for guidance.

The estimated number of businesses adopting new eSolutions are shown for each industry selected.

Select target business sizes using employment size ranges from 1 up to 249 employees. Counts are provided for all industries listed above.

Selection of businesses with 250 employees or more is not provided due to insufficient data for analysis of this segment.

Selecting eSolutions

eSolutions are typical business practices that can be enabled or enhanced through online methods.

Option 1 - Auto Selection

Select the number of eSolutions to include and the percent increase in adoption. The most impactful eSolutions will be automatically selected.

Option 2 - Manual Selection

Select up to 5 eSolutions and the target percent increase in adoption for each.

With either option the target increase in adoption is applied to each selected industry. Estimated new adoptions are shown for each selected eSolution.

Nominal Tax Rates Used *

State & Local	
Individual Income Tax	3.4%
Corporate Income Tax	0.4%
Sales & Other Indirect Taxes	1.5%
Federal	
Individual Income Tax	6.2%
Corporate Income Tax	0.8%
Other Taxes	0.4%

* Applied to gross output or gross income

Notes

- Industry profiles are based on USCB County Business Patterns (2013)
- Employment is total for all business sizes. USCB CBP data does not provide a breakdown by employment size range.
- Analysis does not include Public Administration sector (not included in USCB CBP data)
- Mining, Utilities, and Management of Companies are not included for selection due to small numbers of businesses.
- Direct financial impacts for eSolutions adoption are based on SNG research
- Direct, indirect, and induced job impacts are based on I-O modeling and are one-time impacts based on stimulus from new adoptions.
- GDP and Tax impacts are based on I-O modelling
- I-O model uses nominal statewide BEA factors as a proxy for estimation
- Household counts are from USCB 2010 census data
- Percent increase applied to percentage of businesses not currently using the eSolution, by industry and size.
- Financial impacts are annualized based on fully realized benefits from new adoptions.
- Rural percentages based on USCB 2010 data for percent urban population by county.

For more information about the Broadband Economic Impact Calculator, visit: <http://www.sngroup.com/impact>

Broadband Economic Impact Calculator

Estimate of economic impacts from business adoption of eSolutions for selected geographies and industry profiles.

- These estimates are intended to provide guidance on the scale of economic impacts possible from meaningful use of broadband.

- SNG's evidence-based approach enables evaluation based on the best research available applied to selected geographic profiles.



Dashboard Metrics

Measure	Impact
Businesses Adopting	2,444
New Revenues / Business	\$59,500
Annual GDP	\$ 181.0 M
Annual Tax Revenues	\$ 6.86 M
Total New Jobs	2,661

Select a State Select a County (Leave blank for entire state; Select Multiple for more than one county)

Scenario Parameters	Inputs and outputs
Target Profile ^(1,2)	12% Rural
State	Connecticut
County	All
Total Households ⁽⁹⁾	1,371,087
Total Businesses (all industries/sizes) ^(3,4)	87,462
Selected Industries (Max. of 10)	Accommodation & Food Services Administrative & Support Services Construction Finance & Insurance Health Care & Social Assistance Manufacturing / Processing Other services (exc. public admin) Professional & Technical Services Retail Trade Wholesale Trade
Selected Employment Range	Less than 20
Total Businesses (selected industries/sizes)	66,851
% of Selected Industries	85.7%
% of ALL businesses	76.4%
Total Employment of Selected Industries ⁽²⁾	1,166,138
Selected Industries % of Total Employment	84.8%
Adoption Scenario	
Selected eSolutions (Max. of 5)	Selling goods or services Web site for organization Advertising and promotion Deliver services and content Customer service and support
Number of Selected eSolutions	5
% Increase in adoption	5.0%
Estimates of Direct Impacts from Adoption ⁽⁵⁾	
Total number of businesses adopting eSolutions	2,444
% of Total businesses in selected industries	3.7%
Total number of new eSolutions adoptions	6,807
Average new eSolutions per business adopting	2.8
Total incremental Revenue from new eSolutions	\$145,000,000
Total incremental Cost Savings from new eSolutions	\$9,130,000
Total incremental Direct Impact	\$154,130,000
Direct Impact Metrics	
Total annual revenues for adopting businesses	\$1,160,000,000
Total annual operating expenses for adopting businesses	\$680,000,000
Operating expenses as percentage of revenues	58.6%
Aggregate percent increase in revenues	12.5%
Aggregate percent cost savings	1.3%
Average incremental revenue per business adopting	\$59,500
Average cost saving per business adopting	\$3,730
Economic Impact Assessment ⁽⁶⁾	
Total Direct Output - Selected industries	\$155,000,000
Total Indirect Output - All Industries	\$65,200,000
Total Induced Output - All Industries	\$87,400,000
Total Incremental Output	\$307,600,000
Total Direct Jobs	1,560
Total Indirect Jobs	425
Total Induced Jobs	688
Total Incremental Job Creation ⁽⁶⁾	2,661
Total Incremental GDP ⁽⁷⁾	\$181,000,000
Total Incremental Household Earnings	\$95,200,000
Total Incremental State and Local Taxes	\$6,860,000
Total Incremental Federal Taxes	\$9,470,000
Economic Impact Metrics	
Average total incremental output per adopting business	\$126,000
Average direct jobs per adopting business	0.6
Average indirect and induced jobs per adopting business	0.5
Average incremental total taxes per adopting business	\$6,680
Average incremental GDP per adopting business	\$73,900
Average incremental Household Earnings	\$69

Scenario Parameter Selections			
Adopting	Select up to 10 Industries	All Businesses ⁽⁴⁾	Rank
208	<input checked="" type="checkbox"/> Accommodation & Food Services	8,425	5
165	<input checked="" type="checkbox"/> Administrative & Support Services	5,300	8
	<input type="checkbox"/> Agriculture / Forestry / Fishing	83	16
	<input type="checkbox"/> Arts, Entertainment & Recreation	1,601	14
343	<input checked="" type="checkbox"/> Construction	7,899	6
	<input type="checkbox"/> Educational Services	1,383	15
158	<input checked="" type="checkbox"/> Finance & Insurance	6,131	7
359	<input checked="" type="checkbox"/> Health Care & Social Services	10,456	2
	<input type="checkbox"/> Information	1,656	12
100	<input checked="" type="checkbox"/> Manufacturing / Processing	4,258	10
328	<input checked="" type="checkbox"/> Other services (exc. public admin)	9,306	3
295	<input checked="" type="checkbox"/> Professional & Technical Services	9,266	4
	<input type="checkbox"/> Real Estate	3,159	11
352	<input checked="" type="checkbox"/> Retail Trade	12,573	1
	<input type="checkbox"/> Transportation & Warehousing	1,611	13
136	<input checked="" type="checkbox"/> Wholesale Trade	4,355	9
2,444		87,462	
Adopting	Select Employment Ranges	All Industries ⁽⁴⁾	% of Bus.
1,569	<input checked="" type="checkbox"/> 1 - 4	45,963	52.4%
534	<input checked="" type="checkbox"/> 5 - 9	17,045	19.4%
341	<input checked="" type="checkbox"/> 10 - 19	11,803	13.5%
	<input type="checkbox"/> 20 - 49	7,883	9.1%
	<input type="checkbox"/> 50 - 99	2,609	3.1%
	<input type="checkbox"/> 100 - 249	1,641	1.9%
2,444		86,944	
	Select Number of eSolutions	5	
AND	% Increase in adoption ⁽¹⁰⁾	5%	

Selecting Industries

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Option 2 - Manual Selection

Select up to 5 eSolutions and the target percent increase in adoption for each.

With either option the target increase in adoption is applied to each selected industry. Estimated new adoptions are shown for each selected eSolutions.

OR Select up to 5 eSolutions and % increase in adoption

Adoptions	eSolutions	% Increase ⁽¹⁰⁾	Not Using
1,601	<input type="checkbox"/> Selling goods or services		45.0%
	<input type="checkbox"/> Purchasing goods or services		17.2%
686	<input type="checkbox"/> Web site for organization		12.5%
1,253	<input type="checkbox"/> Advertising and promotion		31.8%
2,128	<input type="checkbox"/> Deliver services and content		57.5%
1,139	<input type="checkbox"/> Customer service and support		29.1%
	<input type="checkbox"/> Banking and financial		24.6%
	<input type="checkbox"/> Research by staff		10.4%
	<input type="checkbox"/> Electronic document transfer		10.8%
	<input type="checkbox"/> Supplier communication and coordination		15.8%
	<input type="checkbox"/> Access government information		16.1%
	<input type="checkbox"/> Government transactions		30.1%
	<input type="checkbox"/> Staff training and skills development		27.3%
	<input type="checkbox"/> Teleworking		44.8%
	<input type="checkbox"/> Accessing collaborative tools		30.4%
	<input type="checkbox"/> Social networking		30.3%
	<input type="checkbox"/> Multimedia content or service creation		51.6%

6,807 Selected Counties (Multiple Selection) All Businesses ⁽⁴⁾

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0

Notes

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Federal	
Individual Income Tax	6.2%
Corporate Income Tax	0.8%
Other Taxes	0.4%

* Applied to gross output or gross income