

Purpose of the McNair Entrepreneurship Index

The McNair Entrepreneurship Index is a new index that is designed to provide at a glance a gauge of the conditions that U.S. entrepreneurs are currently facing in today's complex economy. Entrepreneurs provide the majority of jobs and much of the innovation that the American economy runs on, so their performance affects everyone. The index will be released monthly, and is made up of 29 different indicators that together provide a good picture of the economy and the overall economic conditions faced by today's entrepreneurs. The 29 input variables for the initial McNair Index were determined by a review of existing models and input from a focus group of entrepreneurs. The definition of each of the input variables can be found immediately below in this document.

Currently, the McNair Entrepreneurship Index will only show the direction for change of each of its 29 input variables from month to month or on an annual basis. In the summer of 2017 we will add a second McNair Index, this Index will have its individual inputs weighted based on their relevance to economic conditions, the indicators will then be aggregated into a single score that will represent the index. The weights will be assigned based on a statistically significant survey of entrepreneurs across the United States conducted during the summer of 2017. Weighting will be done using either a Paasche (current year weighting) or Laspeyres (base year weighting) formula. The second model will be an attempt to determine if overall confidence is rising or declining in the overall economy and to what degree. Results will be published once the models accuracy can be validated.

The charts below show data gathered for the McNair Entrepreneurship Index from May 2015 – April 2016. The overall analysis shows that from May of 2015 to April 2016, 17 of the 29 variables declined, 1 stayed constant, and 11 increased in value. The general inconsistent trend for the 12 month period seems to validate the general lack of direction in the overall U.S. economy in recent times. We will look for trend lines and predictive values for entrepreneurs following the McNair Entrepreneurship Index and report on these findings on a monthly basis. The inaugural McNair Entrepreneurship Index will be released to the popular and business press in August of 2016 and will be tracked monthly on the Northwood University website. Definitions of each of the 29 input variables are found in this document below and will be accessible from the Northwood University website.

Definitions of McNair Entrepreneurship Index Input Variables

1. NFIB Small Business Optimism – Released monthly by the National Federation of Small Businesses. This index is made up of sub-components of plans to increase employment, plans to make capital outlays, plans to increase inventories, expect economy to improve, expect real sales higher, current inventory, current job openings, expected credit conditions, now a good time to expand, and earnings trends. This is included as it is a direct measure of how small businesses are performing and their expectations of the future.
2. University of Michigan: Consumer Sentiment Index (CSI) - CSI is released monthly by the Institute for Social Research at the University of Michigan. This index is made up of two parts: current economic conditions, and future expectations. Current conditions has more of an effect for short-term purchasing decisions for smaller items, but the future expectations will probably be more important for long term decisions on more expensive items. Both parts could be very important to an entrepreneur, as they determine the demand of an entrepreneur's goods and services.

3. GDPNow Estimate - Revised GDP forecasts are released by Atlanta Federal Reserve Board as new data becomes available. Provides advanced estimates of GDP growth in the current quarter. GDP growth is one of the foremost indicators on the state of the economy as a whole, which is an important factor for entrepreneurs' decision making.
4. Reuters/PayNet Small Business Lending Index - Released monthly by Thomson Reuters and PayNet. It measures the volume of loans to small businesses. This could provide a good indicator of how easy capital is to access for entrepreneurs. It should also be a leading indicator to the economy as small businesses normally react quicker to changing economic conditions than large businesses.
5. S&P SmallCap 600 – This index tracks the stock market performance of 600 small to medium sized businesses. It provides an indication on the overall performance of the economy, as well as more specifically the performance of smaller businesses.
6. Consumer Price Index (CPI) for All Urban Consumers: All Items - Released monthly by the Bureau of Labor Statistics. The Federal Reserve uses CPI to help set interest rates, which will in turn affect the cost of capital entrepreneurs face. Also affects consumers' purchasing power, which could affect sales. This is the headline measure of inflation as it includes all items.
7. CPI for All Urban Consumers: Food and Beverages - Released monthly by the Bureau of Labor Statistics. This is very important to any restaurant entrepreneurs as it is an indicator for one of their major costs.
8. CPI for All Urban Consumers: Gasoline (all types) - Released monthly by the Bureau of Labor Statistics. The cost of gas and thus transportation can be a major factor in many businesses' costs, as it affects the cost of shipping supplies or purchases.
9. Producer Price Index (PPI) For All Commodities - Released monthly by the Bureau of Labor Statistics. It is another measure of the changes in prices, this time from the producer's perspective. However, this index also captures the costs of inputs to production, so it may capture changes in prices earlier than the CPI.
10. PPI by Industry: Utilities - Released monthly by the Bureau of Labor Statistics. This specific part of the larger producer part index is important because utility prices make up a large part of the costs for an entrepreneur running a small business.
11. U3 Civilian Unemployment Rate, Seasonally Adjusted - Released monthly by the Bureau of Labor Statistics. This is the headline unemployment rate that is used as a gauge for the health of the job market as well as the economy as a whole. However, very low unemployment can be a leading indicator to rising wages.
12. U6 Unemployment Rate, Seasonally Adjusted (SA) - Released monthly by the Bureau of Labor Statistics. The U6 Unemployment Rate includes marginally attached workers that aren't actively looking for a job, but would take a job if offered one. It also includes people who are working part time for economic reasons when they wish to work full time. This indicator provides a more comprehensive view on the health of the job market than U3.
13. Retailers' Sales (% Change) – Released monthly by the US Bureau of the Census. Provides an indication of how current businesses are faring, and is especially applicable to any entrepreneurs looking to start a retail business.
14. Manufacturers' New Orders: Durable Goods, SA - Released monthly by the US Bureau of the Census. It is a leading indicator of industrial production and capital spending.
15. Real Disposable Personal Income Per Capita (% Change) (SA) - Released monthly by the Bureau of Economic Analysis. Provides information on the strength of the economy, as well as the purchasing power of consumers.

16. Real Personal Consumption Expenditures (% Change) (SA) - Released monthly by the Bureau of Economic Analysis. A measure of consumer spending, which could directly affect an entrepreneur's sales.
17. Compensation of Employees, Received: Wage and Salary Disbursements (% Change) (SA) - Released monthly by the Bureau of Economic Analysis. Provides a measure of one of the major costs that an entrepreneur faces.
18. Total Business: Inventories to Sales Ratio (SA) - Released monthly by the US Bureau of the Census. If inventories are increasing while sales aren't, then that could mean that sales are below business expectations and that production will have to be cut back in the future.
19. Total Consumer Credit Owned and Securitized, Outstanding (% Change) (SA) - Released Monthly by the Federal Reserve. Provides an indication of where future sales could go, as when consumer debt gets too high, consumers will have to cut spending.
20. Monthly Average of 4-Week Moving Average Initial Jobless Claims (SA) - Released weekly by the Employment and Training Administration. The 4 week average is used as a monthly indicator with less volatility. Provides information on the strength of the economy, as well as consumers' purchasing power. However, sustained low jobless claims may indicate that entrepreneurs would have a harder time finding suitable employees.
21. Industrial Production Index (SA) - Released monthly by Federal Reserve Board. Industrial production makes up a lot of the volatility in the business cycle, so the performance of industrial production provides a good indicator of how the economy as a whole is doing.
22. Capacity Utilization: Total Industry (SA) - Released monthly by Federal Reserve Board. This indicator usually lines up with the industrial production index. However, a high capacity utilization, of around 84% or higher, also indicates that producer price inflation could occur, and a low capacity utilization can indicate that there is unused capital that an entrepreneur might be able to get at a discount.
23. Bloomberg US Treasury Bond Index - Updated on weekdays by Bloomberg. Provides a measure of inflation expectations and expectations of economic performance as government bonds often do better when the economy, and thus the stock market, is doing worse.
24. Real Trade Weighted U.S. Dollar Index: Broad - Updated daily by the Federal Reserve. Can be important to entrepreneurs that are in import-competing industries, or ones in export industries. Doesn't apply to most entrepreneurs in service industries however.
25. Effective Federal Funds Rate – Released by the Federal Reserve. Provides an indication of the cost of borrowing, as well as on the strength of the economy, as the rate is usually only increased if the economy is doing well or inflation is high.
26. S&P/Case-Shiller 10-City Composite Home Price Index (SA) – Released monthly by S&P Dow Jones Indices. The housing market usually does better when the economy as a whole is doing better. However, this index can also provide a warning if the housing market becomes a bubble like it did before the 2008 Financial Crisis.
27. Shiller S&P 500 Price to Earnings Ratio – This ratio can show if the stock market is overvalued. 16 is the historical average of the ratio, and being over that is seen as indicating an overvalued stock market and issues in the economy as a whole.
28. Civilian Labor Force Participation Rate (SA) - Released monthly by the Bureau of Labor Statistics. It is a measure of the proportion of working age persons in the economy who are either employed or unemployed and looking for work. Some groups are excluded from the labor force even if working age, such as non-civilians and students. This provides a measure on the performance of the job market and economy.

29. Crude Oil Prices: West Texas Intermediate (WTI): Cushing, Oklahoma – Released by the US Energy Information Administration. This measures the cost of a barrel of oil from the southern United States.

Year at a Glance

May 2015 to April 2016

Chart 1: The McNair Entrepreneurship Index 12 Month Analysis		May-15	Apr-16	May 15 - April 16
1	NFIB Small Business Optimism	97.9	93.6	↓
2	University of Michigan: Consumer Sentiment Index	90.7	89	↓
3	GDPNow Estimate	0.8	0.7	↓
4	Reuters/PayNet Small Business Lending Index	132	129	↓
5	S&P Small Cap 600	709.46	688.1	↓
6	Consumer Price Index (CPI) for All Urban Consumers: All Items	236.88	238.89	↑
7	CPI for All Urban Consumers: Food and Beverages	245.94	248.14	↑
8	CPI for All Urban Consumers: Gasoline (all types)	222.08	180.55	↓
9	Producer Price Index (PPI) For All Commodities	193.4	183.3	↓
10	PPI by Industry: Utilities	135.6	130.1	↓
11	U3 Civilian Unemployment Rate, Seasonally Adjusted	5.5	5	↓
12	U6 Unemployment Rate, Seasonally Adjusted (SA)	10.7	9.7	↓
13	Retailers' Sales (% Change)	1.1	1.3	↑
14	Manufacturers' New Orders: Durable Goods, SA	-3.44	3.37	↑
15	Real Disposable Personal Income Per Capita (% Change) (SA)	0.17	0.1	↓
16	Real Personal Consumption Expenditures (% Change) (SA)	0.55	0.64	↑
17	Compensation of Employees, Received: Wage and Salary Disbursements (% Change) (SA)	0.77	0.48	↓
18	Total Business: Inventories to Sales Ratio (SA)	1.36	N.A.	↑
19	Total Consumer Credit Owned and Securitized, Outstanding (% Change) (SA)	0.56	N.A.	↑
20	Monthly Average of 4-Week Moving Average Initial Jobless Claims (SA)	274600	261250	↓
21	Industrial Production Index (SA)	105.03	104.15	↓
22	Capacity Utilization: Total Industry (SA)	76.6	75.4	↓
23	Bloomberg US Treasury Bond Index	122.72	126.71	↑
24	Real Trade Weighted U.S. Dollar Index: Broad	93.03	96.343	↑
25	Effective Federal Funds Rate	0.12	0.37	↑
26	S&P/Case-Shiller 10-City Composite Home Price Index (SA)	193.48	N.A.	↑
27	Shiller S&P 500 Price to Earnings Ratio	26.81	25.93	↓
28	Civilian Labor Force Participation Rate (SA)	62.8	62.8	↔
29	Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma	59.27	40.75	↓
Totals	Down		17	↓
	Neutral		1	↔
	Up		11	↑

Factors without April data were calculated from May 15 - Mar 16.

Chart 2: The McNair Entrepreneurship Index		May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May 15 - April 16
1	NFIB Small Business Optimism	97.9	94.6 ↓	95.7 ↑	95.7 →	96 ↑	96 →	94.5 ↓	95.2 ↑	93.9 ↓	93 ↓	92.6 ↓	93.6 ↑	↓
2	University of Michigan: Consumer Sentiment Index	90.7	96.1 ↑	93.1 ↓	91.9 ↓	87.2 ↓	90 ↑	91.3 ↑	92.6 ↑	92 ↓	91.7 ↓	91 ↓	89 ↓	↓
3	GDPNow Estimate	0.8	0.8 →	2.2 ↑	0.9 ↓	1.3 ↑	0.9 ↓	1.9 ↑	1.4 ↓	0.7 ↓	1.2 ↑	1.9 ↑	0.7 ↓	↓
4	Reuters/PayNet Small Business Lending Index	132	146.5 ↑	144.3 ↓	135.6 ↓	138.2 ↑	128.1 ↓	127.8 ↓	135.6 ↑	118.1 ↓	139 ↑	135.1 ↓	129 ↓	↓
5	S&P Small Cap 600	709.46	717.2 ↑	722.15 ↑	708.36 ↓	656.27 ↓	647.03 ↓	702.01 ↑	711.36 ↑	655.78 ↓	627.84 ↓	647.79 ↑	688.1 ↑	↓
6	Consumer Price Index (CPI) for All Urban Consumers: All Items	236.88	237.42 ↑	237.73 ↑	237.7 ↓	237.49 ↓	237.95 ↑	238.3 ↑	238.04 ↓	238.11 ↑	237.71 ↓	237.92 ↑	238.89 ↑	↑
7	CPI for All Urban Consumers: Food and Beverages	245.94	246.55 ↑	246.76 ↑	247.24 ↑	247.99 ↑	248.25 ↑	248.04 ↓	247.64 ↓	247.74 ↑	248.16 ↑	247.7 ↓	248.14 ↑	↑
8	CPI for All Urban Consumers: Gasoline (all types)	222.08	225.36 ↑	226.98 ↑	219.336 ↓	203.78 ↓	205.64 ↑	207.3 ↑	197.41 ↓	188.02 ↓	163.51 ↓	167.08 ↑	180.55 ↑	↓
9	Producer Price Index (PPI) For All Commodities	193.4	194.8 ↑	193.9 ↓	191.9 ↓	189.1 ↓	187.5 ↓	185.7 ↓	183.5 ↓	182.5 ↓	181.5 ↓	182.4 ↑	183.3 ↑	↓
10	PPI by Industry: Utilities	135.6	140.7 ↑	142.9 ↑	142.2 ↓	140.4 ↓	135.5 ↓	133 ↓	132.9 ↓	132.6 ↓	132.9 ↑	130.7 ↓	130.1 ↓	↓
11	U3 Civilian Unemployment Rate, Seasonally Adjusted	5.5	5.3 ↓	5.3 →	5.1 ↓	5.1 →	5 ↓	5 →	5 →	4.9 ↓	4.9 ↓	5 ↑	5 →	↓
12	U6 Unemployment Rate, Seasonally Adjusted (SA)	10.7	10.5 ↓	10.4 ↓	10.3 ↓	10 ↓	9.8 ↓	9.9 ↑	9.9 →	9.9 →	9.7 ↓	9.8 ↑	9.7 ↓	↓
13	Retailers' Sales (% Change)	1.1	0.1 ↓	0.6 ↑	-0.2 ↓	0 ↑	-0.1 ↓	0.2 ↑	0.3 ↑	-0.5 ↓	0.1 ↑	-0.3 ↓	1.3 ↑	↑
14	Manufacturers' New Orders: Durable Goods, SA	-3.44	4.99 ↑	0.82 ↓	-2.87 ↓	-2.68 ↓	4.84 ↑	-0.86 ↓	-3.92 ↓	3.74 ↑	-3.31 ↓	1.97 ↑	3.37 ↑	↑
15	Real Disposable Personal Income Per Capita (% Change) (SA)	0.17	0.18 ↑	0.19 ↑	0.24 ↑	0.14 ↓	0.24 ↑	0.12 ↓	0.33 ↑	0.38 ↑	0.14 ↓	0.25 ↑	0.1 ↓	↓
16	Real Personal Consumption Expenditures (% Change) (SA)	0.55	0.08 ↓	0.22 ↑	0.32 ↑	0.24 ↓	0.08 ↓	0.27 ↑	0.23 ↓	0.02 ↓	0.33 ↑	-0.03 ↓	0.64 ↑	↑
17	Change (SA)	0.77	0.38 ↓	0.31 ↓	0.31 →	-0.05 ↓	0.92 ↑	0.75 ↓	0.3 ↓	0.57 ↑	0 ↓	0.38 ↑	0.48 ↑	↓
18	Total Business: Inventories to Sales Ratio (SA)	1.36	1.37 ↑	1.37 →	1.38 ↑	1.38 →	1.38 →	1.39 ↑	1.4 ↑	1.41 ↑	1.41 →	1.41 →	N.A. *	↑
19	Total Consumer Credit Owned and Securitized, Outstanding (% Change) (SA)	0.56	0.77 ↑	0.5 ↓	0.46 ↓	0.8 ↑	0.57 ↓	0.46 ↓	0.18 ↓	0.37 ↑	0.4 ↑	0.83 ↑	N.A. *	↑
20	Monthly Average of 4-Week Moving Average Intial Jobless Claims (SA)	274600	275875 ↑	278000 ↑	272900 ↓	274438 ↑	268050 ↓	272500 ↑	274313 ↑	280250 ↑	269063 ↓	260563 ↓	261250 ↑	↓
21	Industrial Production Index (SA)	105.03	104.86 ↓	105.48 ↑	105.58 ↑	105.31 ↓	105.16 ↓	104.49 ↓	104.04 ↓	104.59 ↑	104.37 ↓	103.47 ↓	104.15 ↑	↓
22	Capacity Utilization: Total Industry (SA)	76.6	76.4 ↓	76.7 ↑	76.7 →	76.4 ↓	76.3 ↓	75.7 ↓	75.4 ↓	75.7 ↑	75.6 ↓	74.9 ↓	75.4 ↑	↓
23	Bloomberg US Treasury Bond Index	122.72	121.24 ↓	121.07 ↓	123.29 ↑	123.12 ↓	124.17 ↑	123.41 ↓	123.52 ↑	122.88 ↓	125.23 ↑	125.91 ↑	126.71 ↑	↑
24	Real Trade Weighted U.S. Dollar Index: Broad	93.03	93.76 ↑	95.34 ↑	97.02 ↑	97.69 ↑	96.79 ↓	98.23 ↑	99 ↑	101.24 ↑	99.79 ↓	97.673 ↓	96.343 ↓	↑
25	Effective Federal Funds Rate	0.12	0.13 ↑	0.13 →	0.14 ↑	0.14 →	0.12 ↓	0.12 →	0.24 ↑	0.34 ↑	0.38 ↑	0.36 ↓	0.37 ↑	↑
26	S&P/Case-Shiller 10-City Composite Home Price Index (SA)	193.48	193.39 ↓	193.29 ↓	193.37 ↑	194.39 ↑	195.57 ↑	197.16 ↑	198.39 ↑	199.91 ↑	201.16 ↑	202.83 ↑	N.A. *	↑
27	Shiller S&P 500 Price to Earnings Ratio	26.81	26.5 ↓	26.38 ↓	25.69 ↓	24.5 ↓	25.49 ↑	26.23 ↑	25.97 ↓	24.21 ↓	24.01 ↓	25.38 ↑	25.93 ↑	↓
28	Civilian Labor Force Participation Rate (SA)	62.8	62.6 ↓	62.6 →	62.6 →	62.4 ↓	62.5 ↑	62.5 ↓	62.6 ↑	62.7 ↑	62.9 ↑	63 ↑	62.8 ↓	→
29	Crude Oil Prices: West Texas Intermediate (WTI) - Cushing, Oklahoma	59.27	59.82 ↑	50.9 ↓	42.87 ↓	45.48 ↑	46.22 ↑	42.44 ↓	37.19 ↓	31.68 ↓	30.32 ↓	37.55 ↑	40.75 ↑	↓
Totals														
Down			12 ↓	11 ↓	16 ↓	11 ↓	14 ↓	13 ↓	14 ↓	14 ↓	16 ↓	12 ↓	11 ↓	17 ↓
Neutral			1 →	4 →	4 →	3 →	2 →	3 →	2 →	1 →	2 →	1 →	1 →	1 →
Up			16 ↑	14 ↑	9 ↑	15 ↑	13 ↑	13 ↑	13 ↑	14 ↑	11 ↑	16 ↑	17 ↑	11 ↑

Factors without April data were calculated from May 15 - Mar 16.

Conclusion

The McNair Entrepreneurial Index has been in development since the fall of 2015 and is under the guidance of Dr. Timothy G. Nash, Mr. James Hop and Mr. Alex Burns. It is a tool that will be monitored and improved by its authors and the senior capstone class in entrepreneurship at Northwood University. A number of industry associations and publications have expressed interest in following this index and receiving it on a monthly basis. The monthly results publications and feedback will be shared with the McNair Foundation on a monthly basis beginning of August 2016.