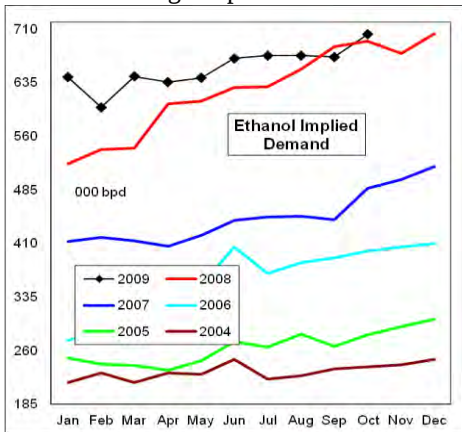


## ETHANOL SUPPLY-DEMAND TRENDS

### A Fundamental Petroleum Trends Monthly Report

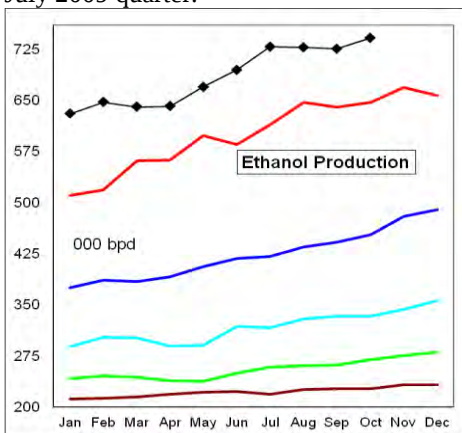
 Lehi German Tel: 816.505.0980 [www.fundamentalpetroleumtrends.com](http://www.fundamentalpetroleumtrends.com) Wednesday, January 06, 2010


**Summary:** Ethanol demand was 682,000 bpd in the August - October 2009 quarter, up +21,000 bpd compared to the May - July 2009 period. Wholesale gasoline demand decreased -162,000 bpd in the same quarter over quarter period. The share of gasoline blended and blend rate increased during the period.



Year-over-year demand for ethanol between August - October 2008 and August - October 2009 increased +4,000 bpd. This represented a +0.6% increase.

Ethanol production was 731,000 bpd during the August - October 2009 quarter, up +34,000 bpd compared to the May - July 2009 quarter.

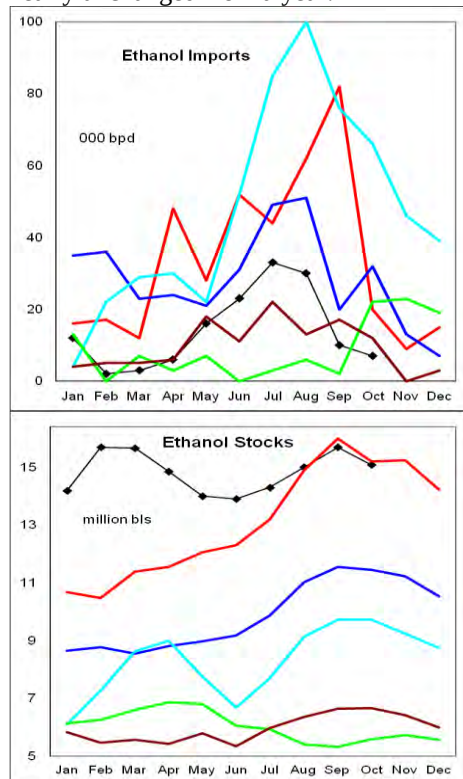


Year-over-year production climbed in the August - October, 2009 quarter by +86,000 bpd. This was a +13% increase.

Imports averaged 16,000 bpd during the August - October 2009 quarter, down from 24,000 bpd during the May - July 2009 quarter. Imports remain well below the prior three years.

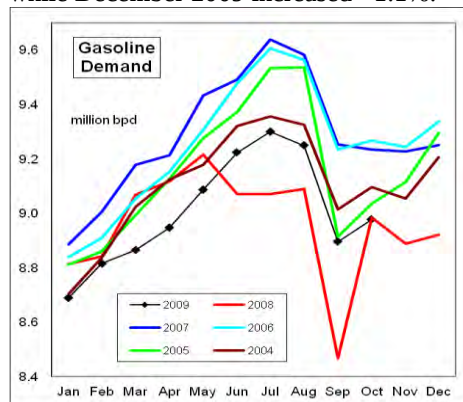
Ethanol stocks decreased -0.6 million barrels in October, a -20,000 bpd draw. Stocks decreased -1 million barrels in

PADD 1, while increasing in PADDs 2, 3 and 5 during October. Stock levels were nearly unchanged from a year.



**Gasoline Demand Trends:** Wholesale gasoline demand increased +194,000 bpd year-over-year in the August - October 2009 period compared to a year ago, a +2.2% increase.

Gasoline demand in November 2009 increased +0.9% compared to a year ago while December 2009 increased +1.1%.



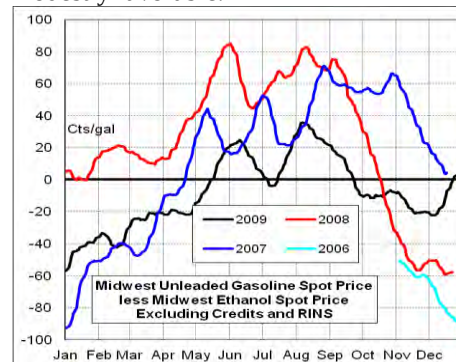
**Blending Trends:** During the August - October 2009 quarter, 4.1 million bpd of conventional gasoline was blended with ethanol, equal to 71% of conventional grade output. This was an increase of +1.1 million bpd over the same period in 2008. The volume of gasoline not blended with

ethanol was 1.5 million bpd in October, 2009, 17.1% of total production.

**Ethanol Blend Economics:** Midwest ethanol prices traded in a range between August to mid September, then trended sharply higher, rising +60 cts/gal by mid November. From mid November through end of December prices declined -35 cts/gal.

The Midwest spot gasoline - ethanol price spread fell from a season high of +35 cts/gal in early August to -20 cts/gal in early December. This decline followed the seasonal downtrend of the last 3-years. However, in the 2nd half of December the spread increased to +5 cts/gal in favor of gasoline at month end.

Including tax and RINS credits of approximately \$0.50/gal, blending economics are now at the high end of the historic range for *this time of year*. Even markets with higher transport cost are modestly favorable.



### Emerging Trends:

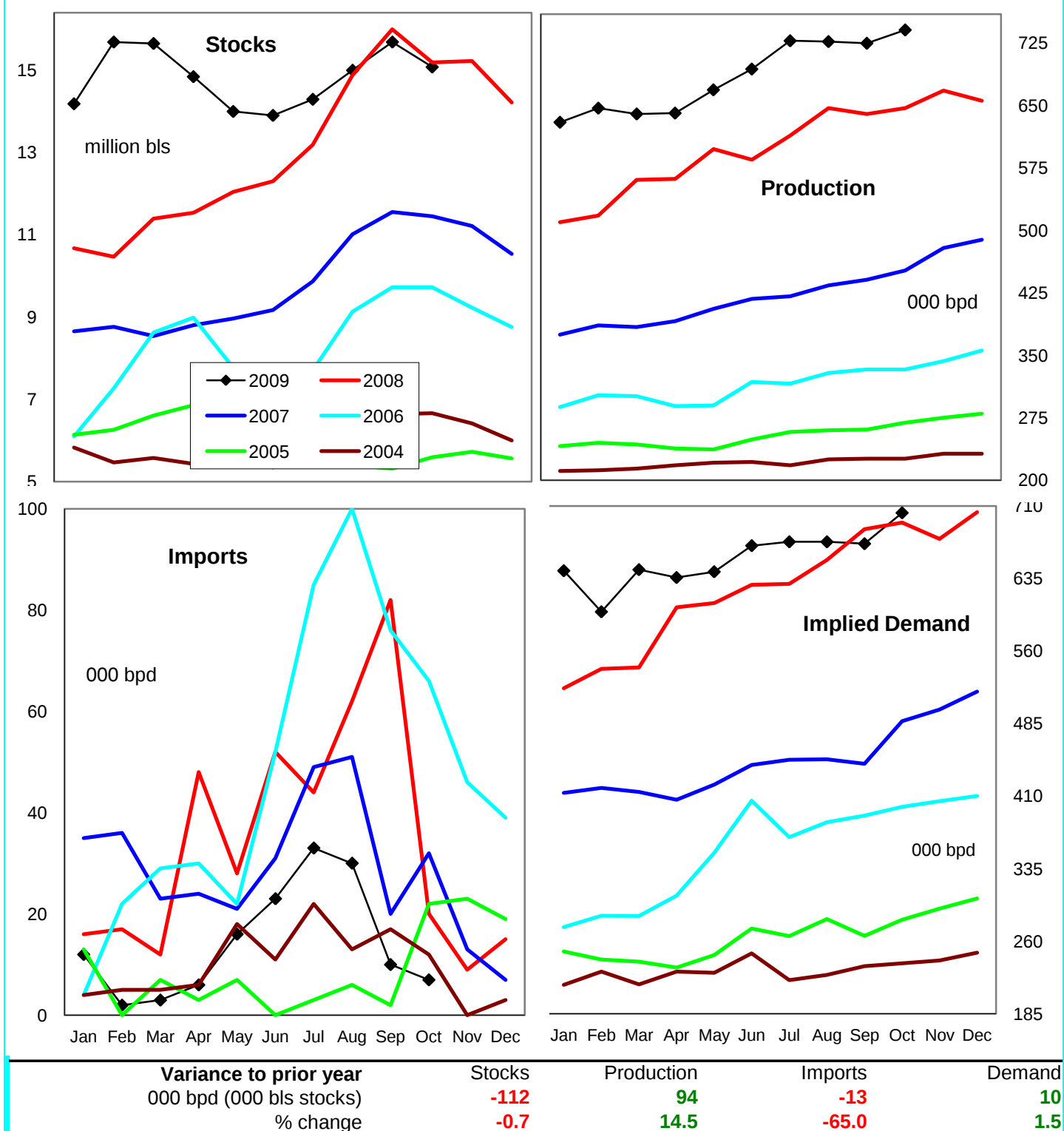
Ethanol production growth during the first 10-months of 2009 compared to 2008 averaged +96,000 bpd. The increase was offset early in the year by stock building, and sharply reduced imports during the peak driving season. Implied demand climbed +44,000 bpd year-over-year for the first 10 months of 2009. While reflecting positive growth, both domestic production and demand increased at much slower rates than the prior two years.

The portion of conventional gasoline not blended with ethanol fell to a low of 1.5 million bpd during October. Pipelines and refiners continue to add blending infrastructure in discretionary blend markets, which will cause the share of unblended gasoline to decline in 2010.

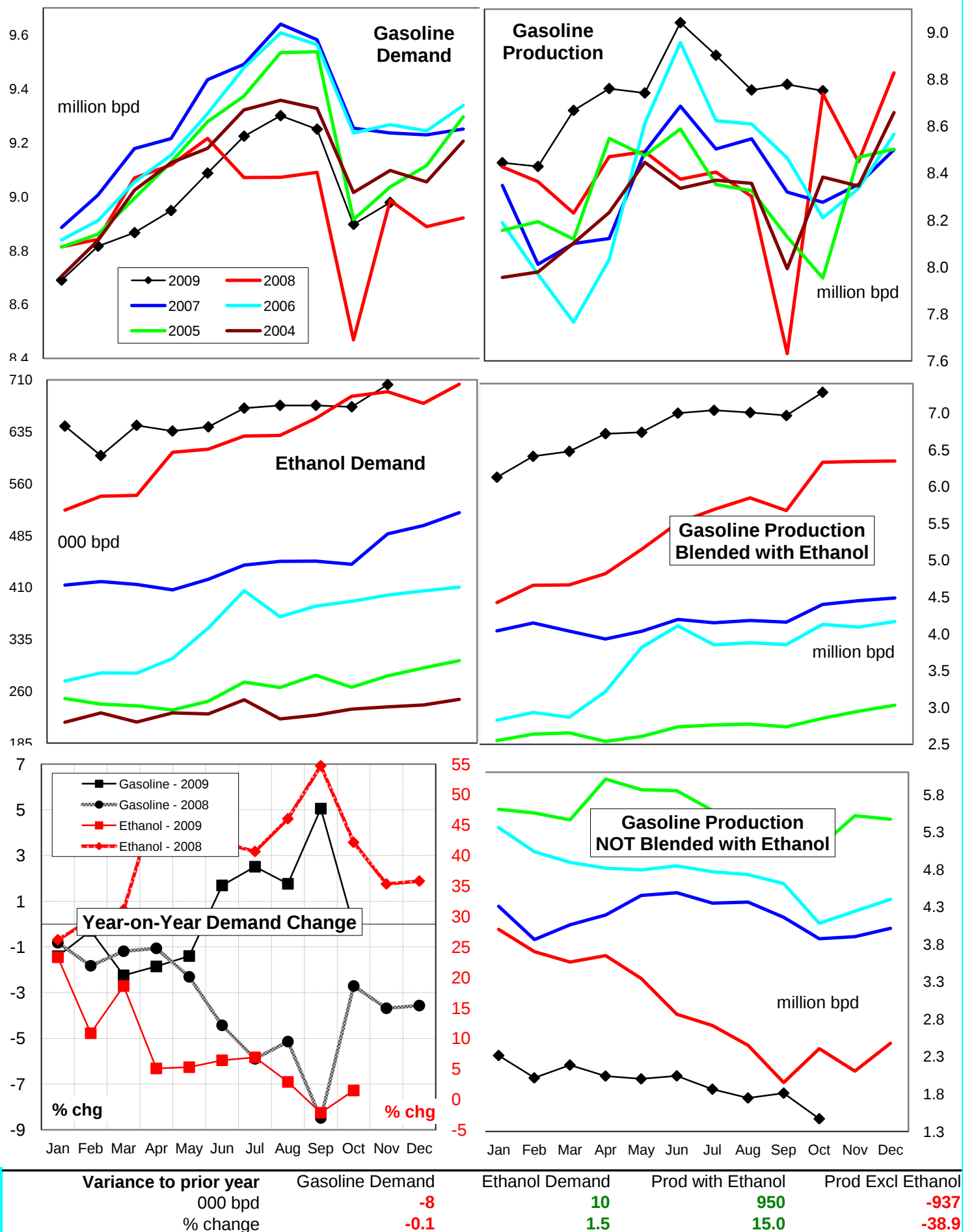
Continued expansion of discretionary blending and higher gasoline demand in 2010 should lead to very modest growth in ethanol demand.

# United States Ethanol Supply-Demand Balance

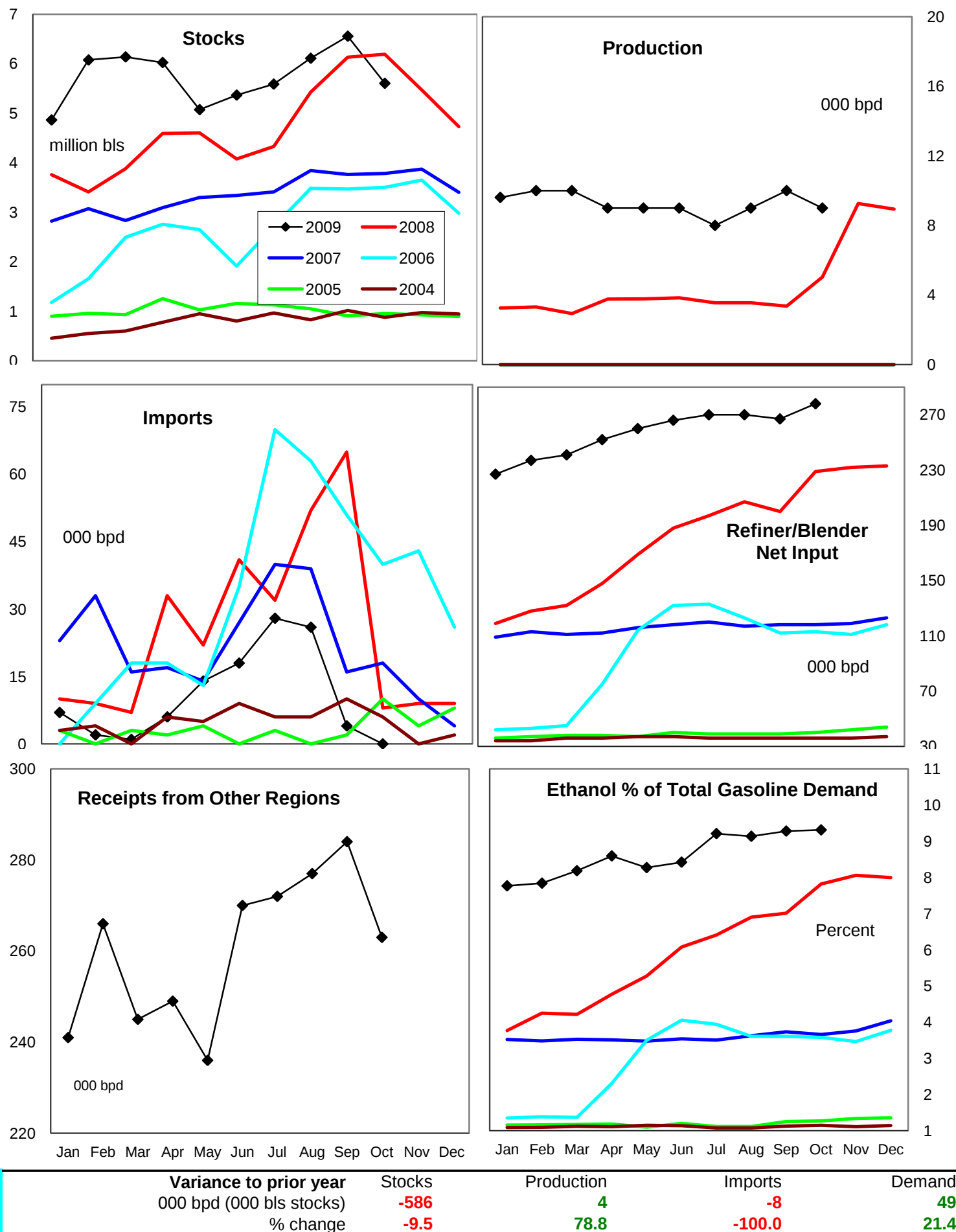
| Item                        | Monthly Ethanol Supply-Demand Balance |        |        |        |        |        | Change From Prior Year |           |           |
|-----------------------------|---------------------------------------|--------|--------|--------|--------|--------|------------------------|-----------|-----------|
|                             | Oct09                                 | Sep09  | Aug09  | Jul09  | Jun09  | May09  | 1-Month                | 3-Mth Avg | 6-Mth Avg |
| Production                  | 741                                   | 725    | 727    | 728    | 694    | 669    | 94                     | 86        | 92        |
| Imports                     | 7                                     | 10     | 30     | 33     | 23     | 16     | -13                    | -39       | -28       |
| EIA Adjustment              | -64                                   | -42    | -62    | -75    | -52    | -71    | -64                    | -56       | -61       |
| Demand                      | 703                                   | 671    | 673    | 673    | 669    | 642    | 10                     | 5         | 22        |
| Ending Stocks               | 15,080                                | 15,688 | 15,001 | 14,294 | 13,903 | 13,999 | -112                   | -100      | 727       |
| Change in stocks            | -608                                  | 687    | 707    | 391    | -96    | -846   |                        |           |           |
| Wholesale Gasoline Demand   | 8,978                                 | 8,897  | 9,250  | 9,300  | 9,224  | 9,087  | -8                     | 193       | 139       |
| Conv Ethanol Gasoline Blend | 4,243                                 | 4,028  | 4,054  | 4,071  | 3,973  | 3,749  | 958                    | 1,097     | 1,263     |
| Ethanol % of Total Gasoline | 8.50                                  | 8.16   | 7.85   | 7.80   | 7.82   | 7.60   | 0.14                   | -0.14     | 0.13      |



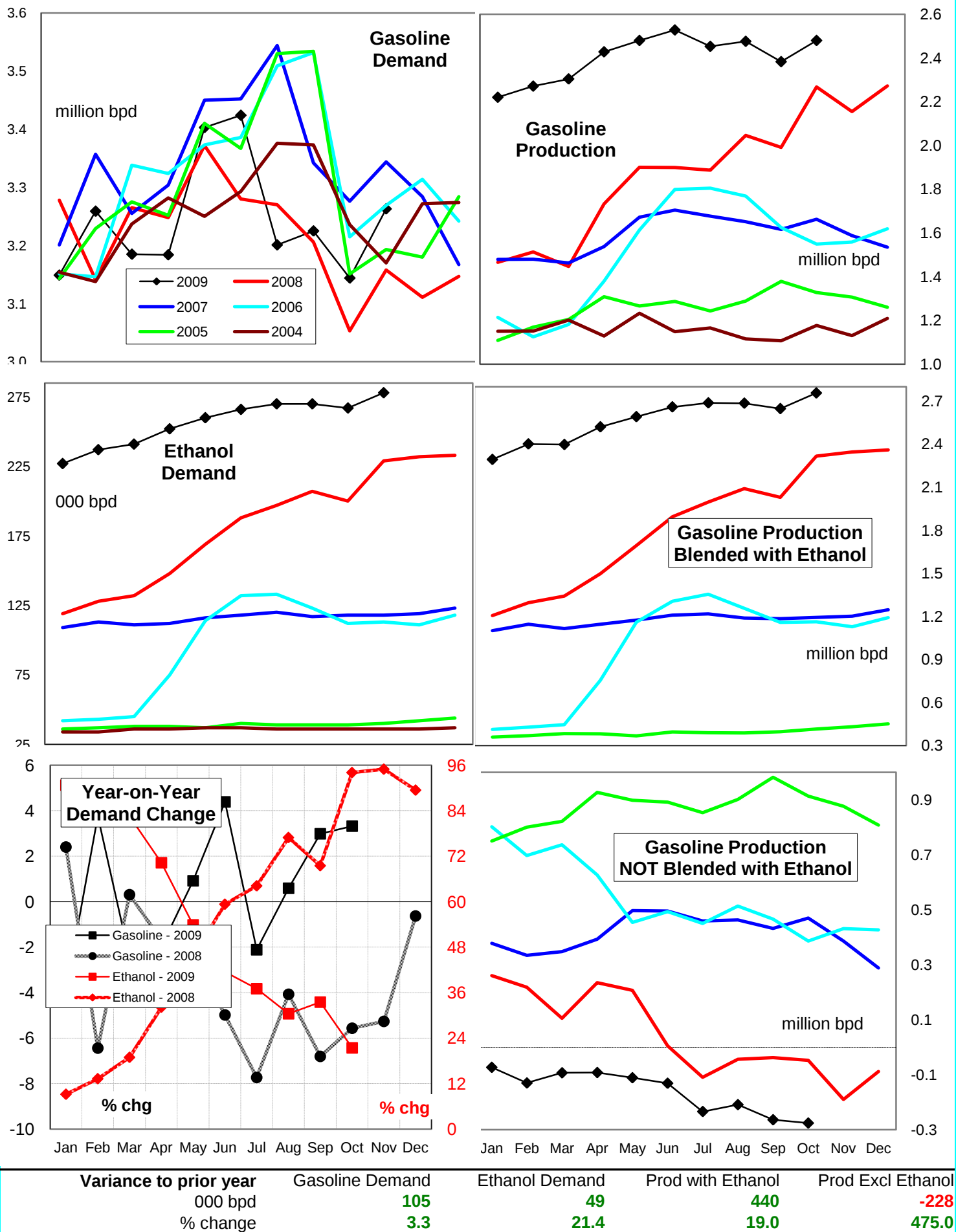
## U. S. Gasoline/Ethanol Demand and Blending



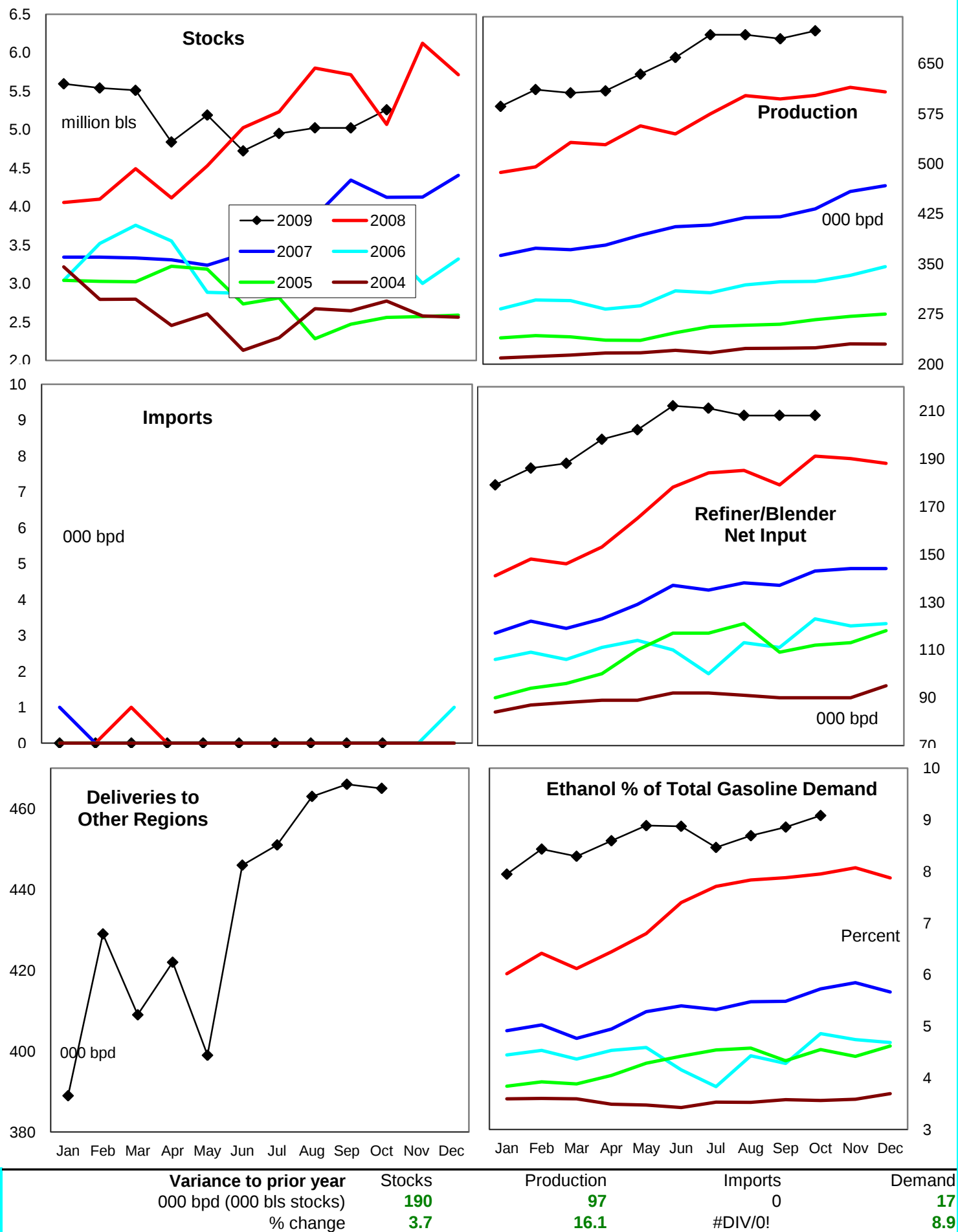
## PADD 1 Ethanol Supply-Demand Balance



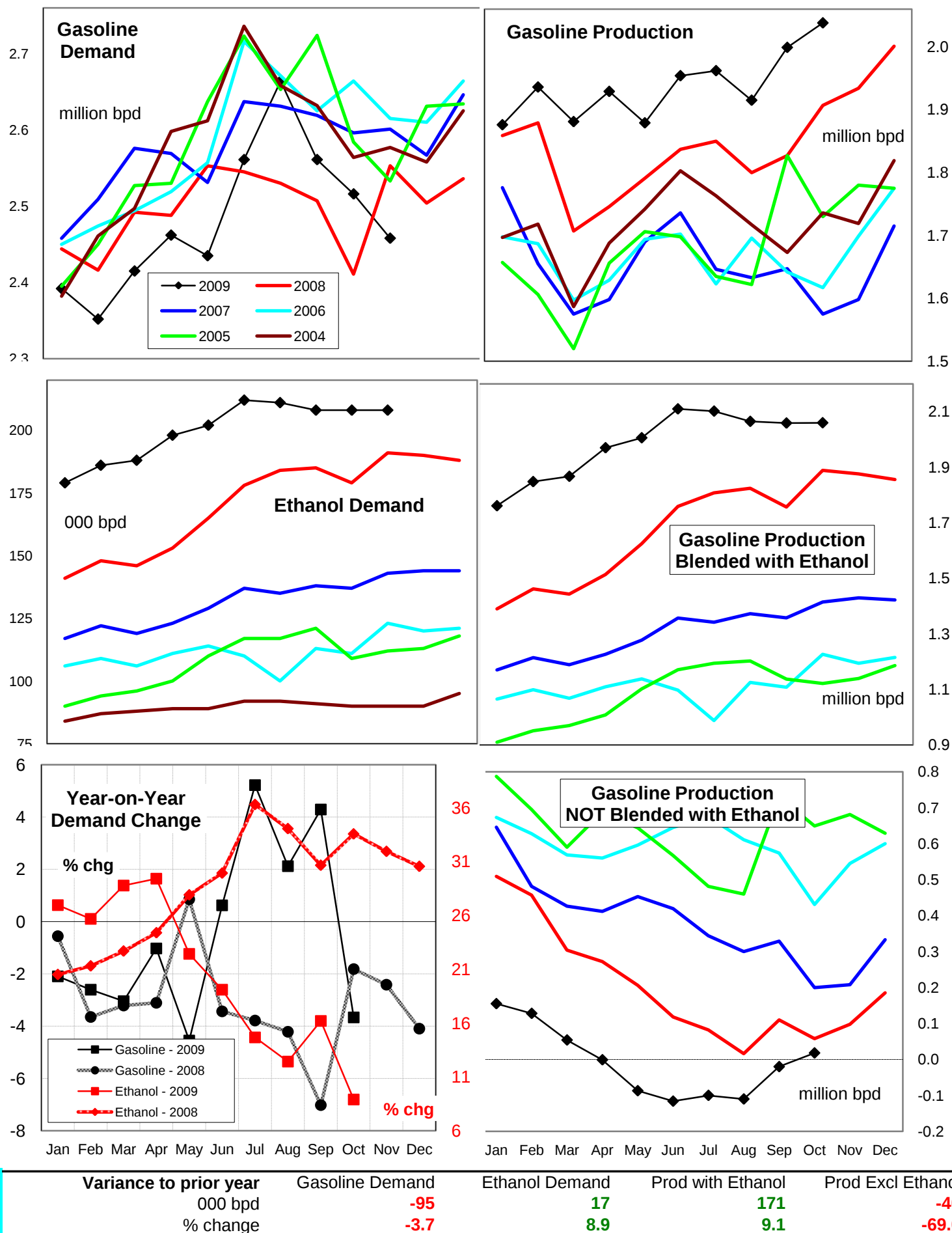
## PADD 01 Gasoline/Ethanol Demand and Blending



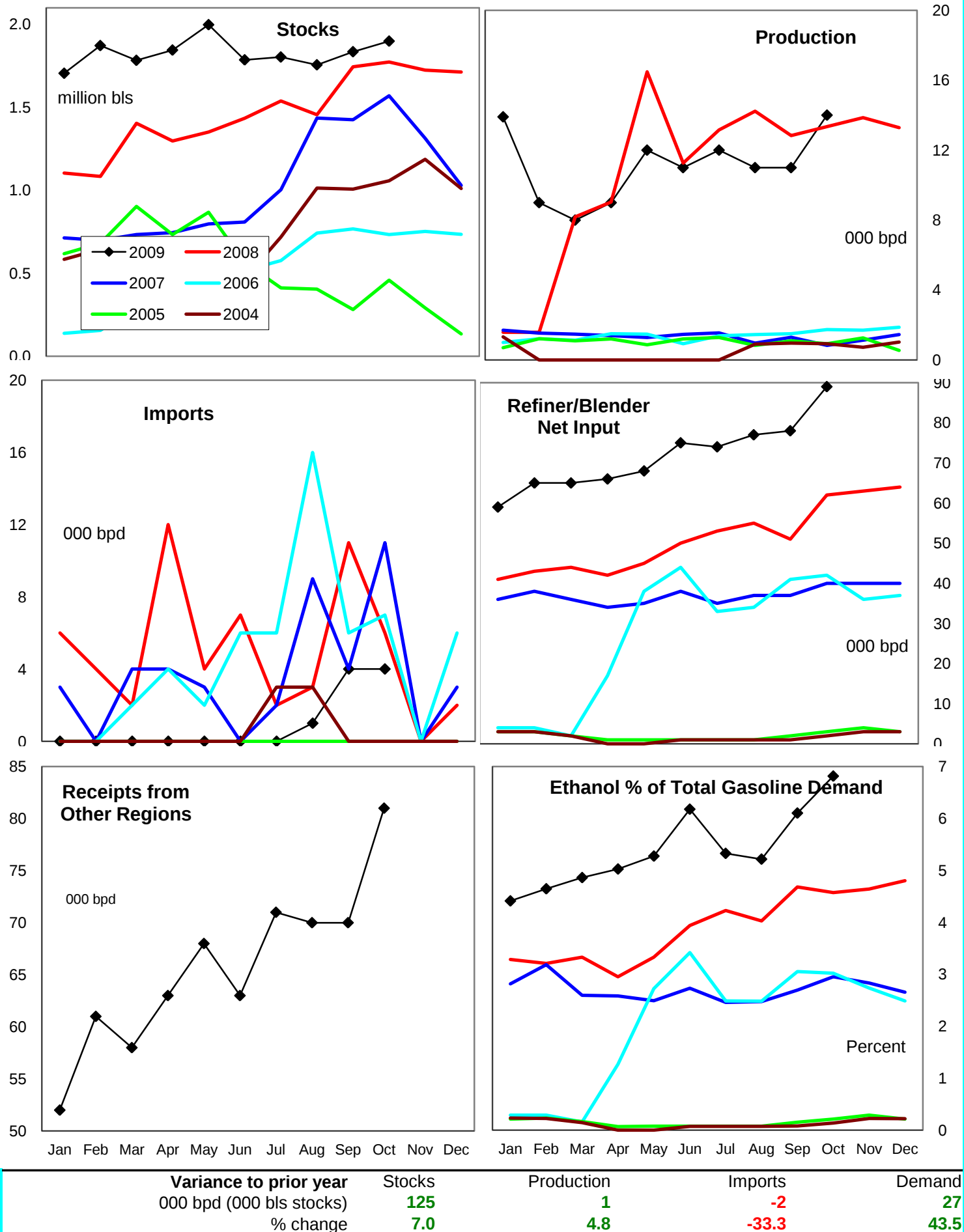
## PADD 2 Ethanol Supply-Demand Balance



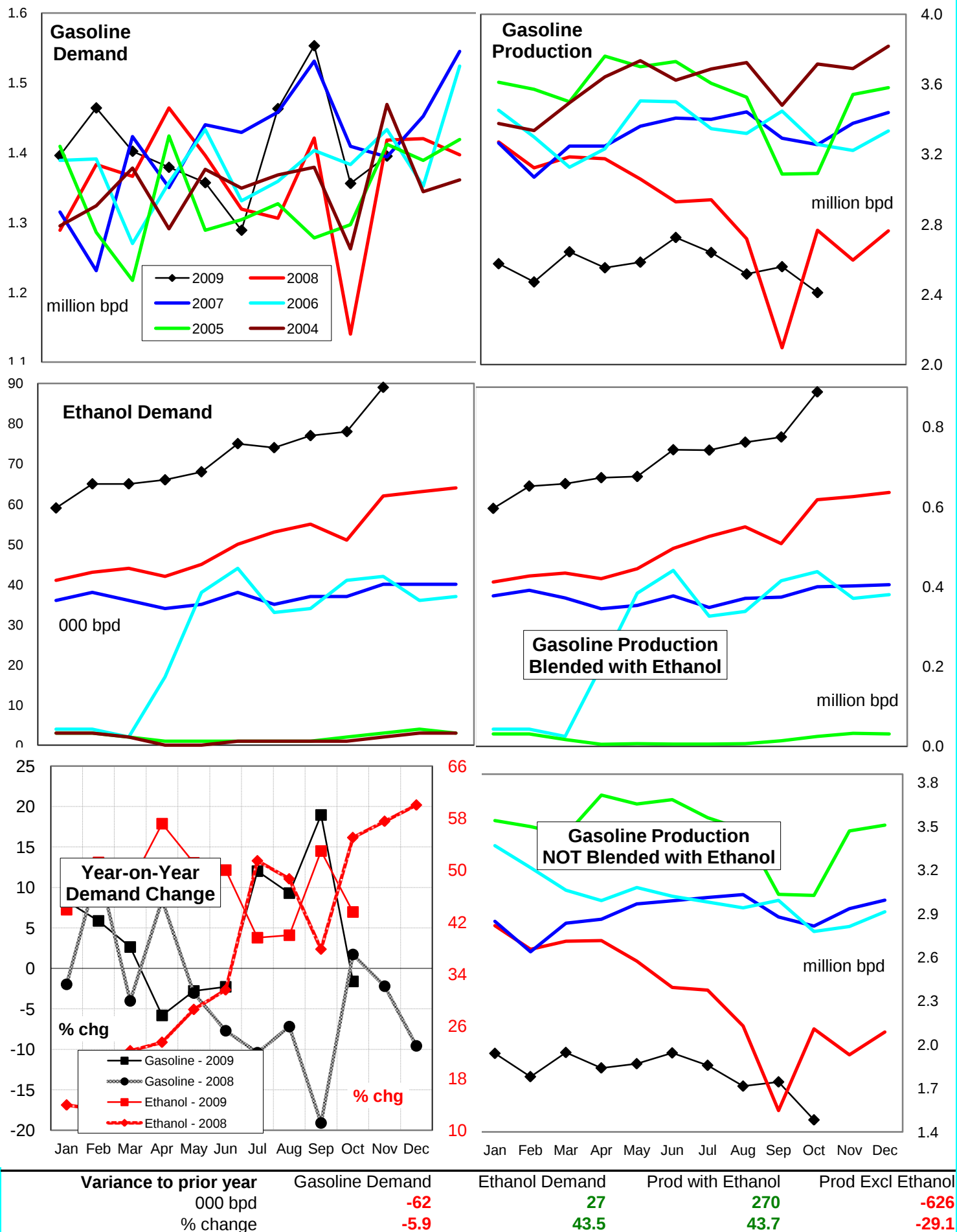
## PADD 02 Gasoline/Ethanol Demand and Blending



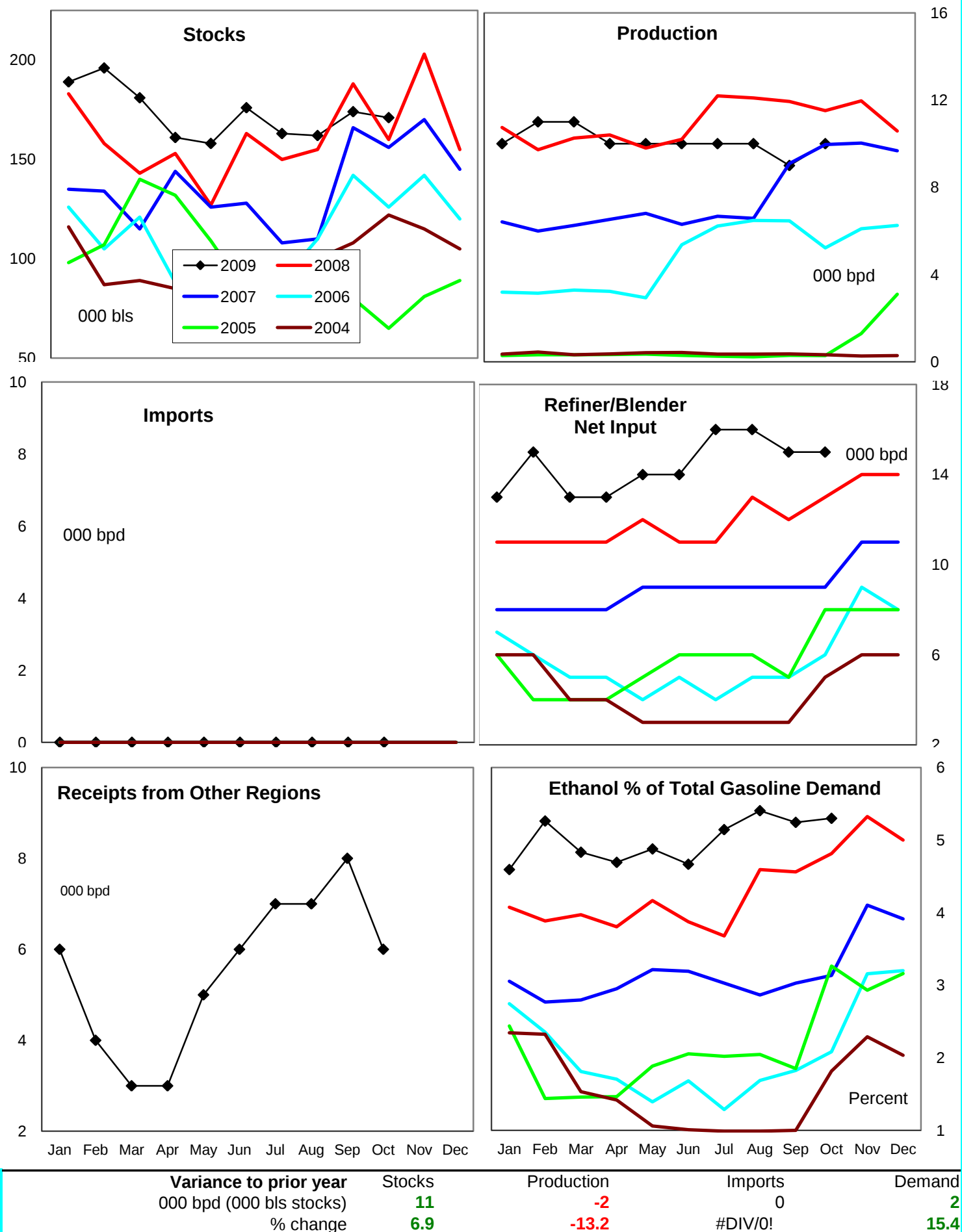
## PADD 3 Ethanol Supply-Demand Balance



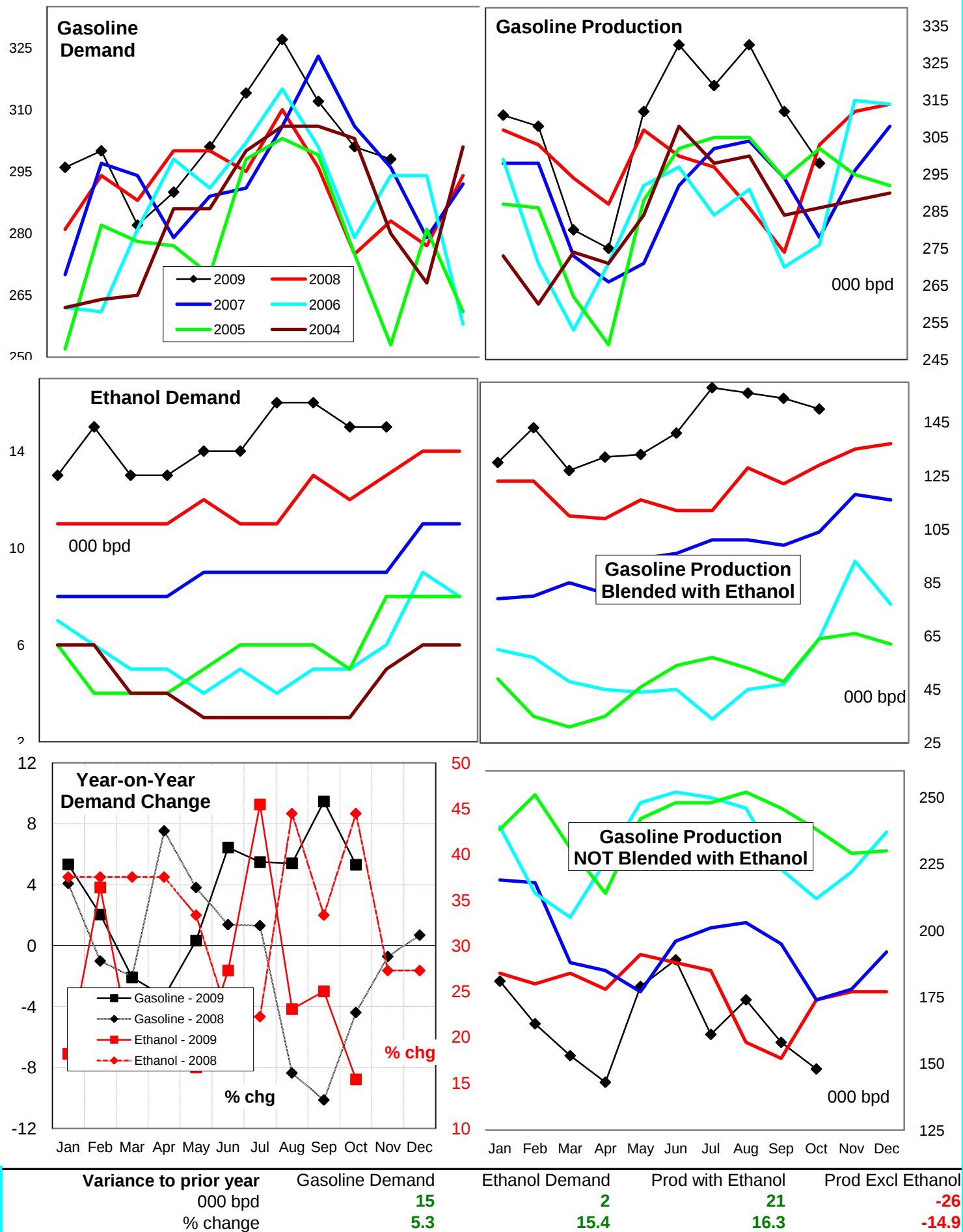
## PADD 03 Gasoline/Ethanol Demand and Blending



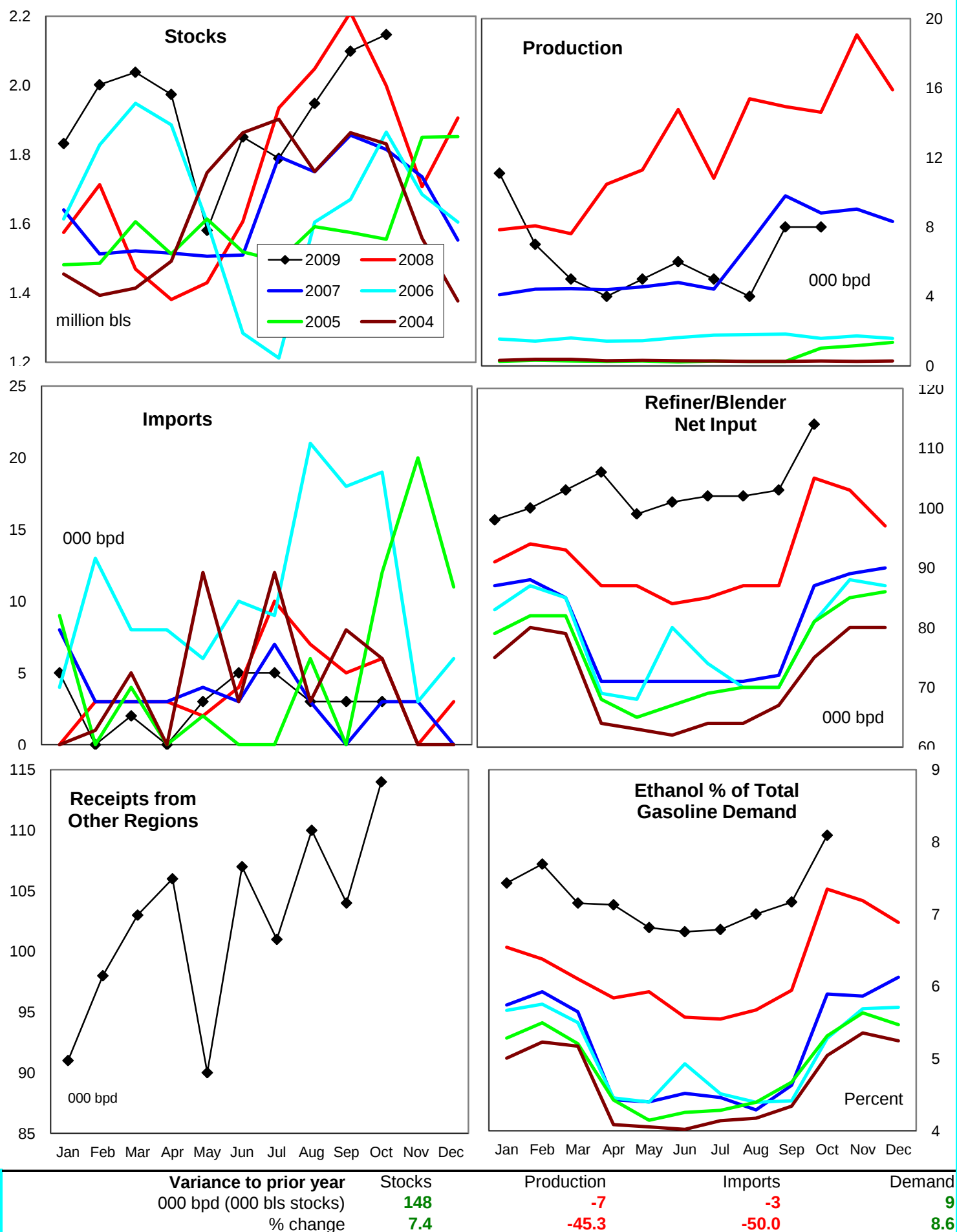
## PADD 4 Ethanol Supply-Demand Balance



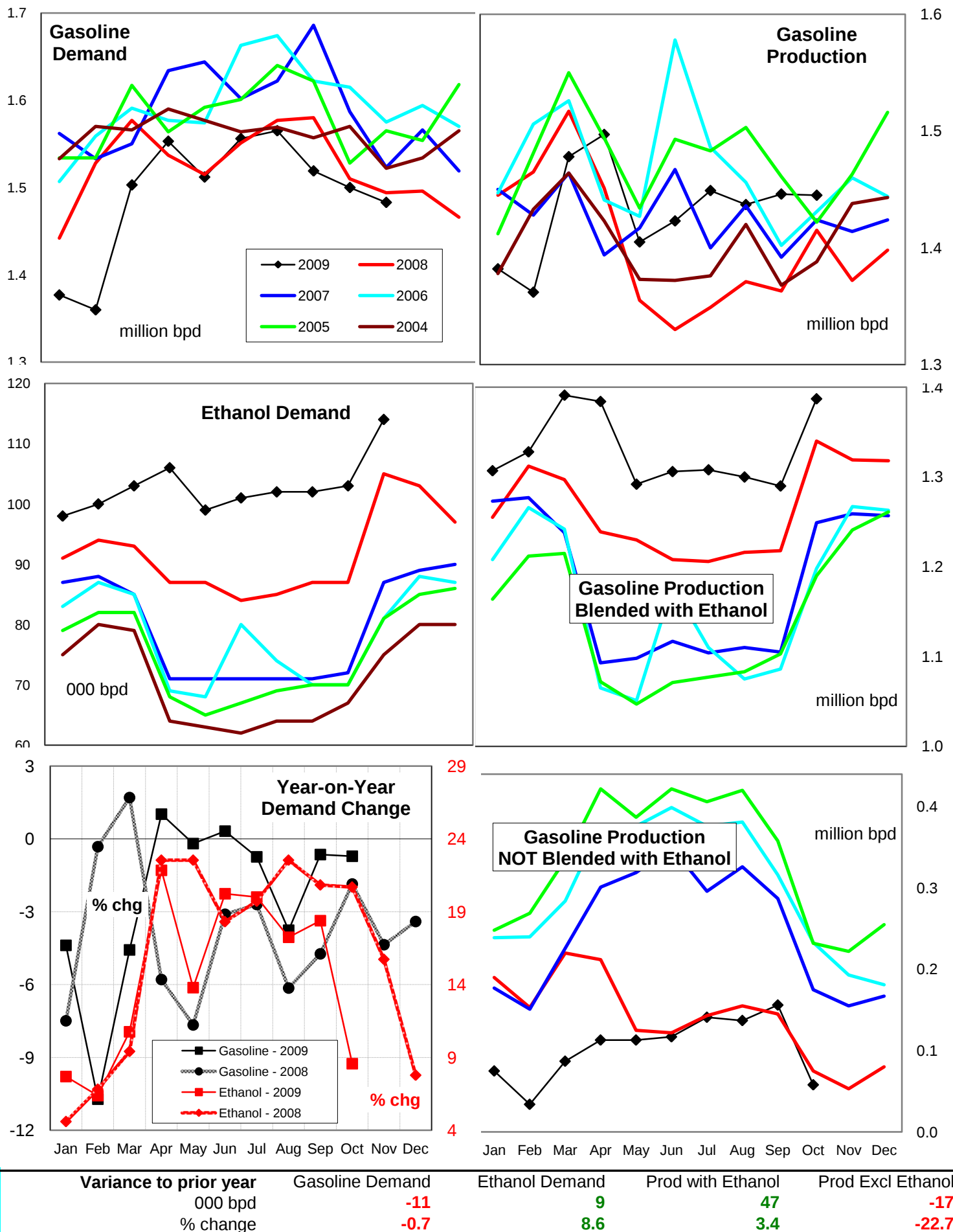
## PADD 04 Gasoline/Ethanol Demand and Blending



## PADD 5 Ethanol Supply-Demand Balance



## PADD 05 Gasoline/Ethanol Demand and Blending



## Ethanol / Gasoline Fundamental Trends

| Item                        | Monthly Ethanol Supply-Demand Balance |        |        |        |        |        | Change From Prior Year |           |           |
|-----------------------------|---------------------------------------|--------|--------|--------|--------|--------|------------------------|-----------|-----------|
|                             | Oct09                                 | Sep09  | Aug09  | Jul09  | Jun09  | May09  | 1-Month                | 3-Mth Avg | 6-Mth Avg |
| <b>U. S. Total</b>          |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 741                                   | 725    | 727    | 728    | 694    | 669    | 94                     | 86        | 92        |
| Imports                     | 7                                     | 10     | 30     | 33     | 23     | 16     | -13                    | -39       | -28       |
| EIA Adjustment              | -64                                   | -42    | -62    | -75    | -52    | -71    | -64                    | -56       | -61       |
| Implied Demand              | 703                                   | 671    | 673    | 673    | 669    | 642    | 10                     | 5         | 22        |
| Ending Stocks               | 15,080                                | 15,688 | 15,001 | 14,294 | 13,903 | 13,999 | -112                   | -100      | 727       |
| Change in stocks            | -608                                  | 687    | 707    | 391    | -96    | -846   |                        |           |           |
| Wholesale Gasoline Demand   | 8,978                                 | 8,897  | 9,250  | 9,300  | 9,224  | 9,087  | -8                     | 193       | 139       |
| Conv Ethanol Gasoline Blend | 4,243                                 | 4,028  | 4,054  | 4,071  | 3,973  | 3,749  | 958                    | 1,097     | 1,263     |
| Ethanol % of Total Gasoline | 8.50                                  | 8.16   | 7.85   | 7.80   | 7.82   | 7.60   | 0.14                   | -0.14     | 0.13      |
| <b>PADD 01</b>              |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 9                                     | 10     | 9      | 8      | 9      | 9      | 4                      | 5         | 5         |
| Imports                     | 0                                     | 4      | 26     | 28     | 18     | 14     | -8                     | -32       | -22       |
| Receipts from other regions | 263                                   | 284    | 277    | 272    | 270    | 236    | NA                     |           |           |
| Refiner/Blender Net Input   | 278                                   | 267    | 270    | 270    | 266    | 260    | 49                     | 60        | 70        |
| Ending Stocks               | 5,605                                 | 6,558  | 6,112  | 5,589  | 5,367  | 5,073  | -586                   | 175       | 590       |
| Wholesale Gasoline Demand   | 3,263                                 | 3,144  | 3,225  | 3,201  | 3,424  | 3,403  | 105                    | 72        | 54        |
| Conv Ethanol Gasoline Blend | 1,537                                 | 1,447  | 1,466  | 1,464  | 1,410  | 1,335  | 454                    | 539       | 648       |
| Ethanol % of Total Gasoline | 9.31                                  | 9.28   | 9.14   | 9.21   | 8.42   | 8.27   | 1.49                   | 2.00      | 2.36      |
| <b>PADD 02</b>              |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 699                                   | 687    | 693    | 693    | 659    | 634    | 97                     | 93        | 98        |
| Deliveries to other regions | -465                                  | -466   | -463   | -451   | -446   | -399   | NA                     |           |           |
| Refiner/Blender Net Input   | 208                                   | 208    | 208    | 211    | 212    | 202    | 17                     | 23        | 28        |
| Ending Stocks               | 5,258                                 | 5,022  | 5,023  | 4,950  | 4,723  | 5,189  | 190                    | -426      | -201      |
| Wholesale Gasoline Demand   | 2,498                                 | 2,556  | 2,601  | 2,704  | 2,601  | 2,475  | -95                    | 21        | 16        |
| Conv Ethanol Gasoline Blend | 1,701                                 | 1,693  | 1,707  | 1,735  | 1,728  | 1,652  | 184                    | 248       | 297       |
| Ethanol % of Total Gasoline | 9.08                                  | 8.86   | 8.69   | 8.46   | 8.87   | 8.89   | 1.13                   | 0.99      | 1.22      |
| <b>PADD 03</b>              |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 14                                    | 11     | 11     | 12     | 11     | 12     | 1                      | -1        | -2        |
| Imports                     | 4                                     | 4      | 1      | 0      | 0      | 0      | -2                     | -4        | -4        |
| Receipts from other regions | 81                                    | 70     | 70     | 71     | 63     | 68     | NA                     |           |           |
| Refiner/Blender Net Input   | 89                                    | 78     | 77     | 74     | 75     | 68     | 27                     | 25        | 24        |
| Ending Stocks               | 1,899                                 | 1,835  | 1,756  | 1,803  | 1,786  | 1,998  | 125                    | 172       | 297       |
| Wholesale Gasoline Demand   | 1,395                                 | 1,356  | 1,553  | 1,463  | 1,289  | 1,357  | -23                    | 108       | 69        |
| Conv Ethanol Gasoline Blend | 509                                   | 390    | 369    | 353    | 342    | 289    | 275                    | 226       | 212       |
| Ethanol % of Total Gasoline | 6.81                                  | 6.10   | 5.22   | 5.33   | 6.18   | 5.28   | 2.24                   | 1.62      | 1.69      |
| <b>PADD 04</b>              |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 10                                    | 9      | 10     | 10     | 10     | 10     | -2                     | -2        | -1        |
| Receipts from other regions | 6                                     | 8      | 7      | 7      | 6      | 5      | NA                     |           |           |
| Refiner/Blender Net Input   | 15                                    | 15     | 16     | 16     | 14     | 14     | 2                      | 3         | 3         |
| Ending Stocks               | 171                                   | 174    | 162    | 163    | 176    | 158    | 11                     | 1         | 10        |
| Wholesale Gasoline Demand   | 298                                   | 301    | 312    | 327    | 314    | 301    | 15                     | 19        | 16        |
| Conv Ethanol Gasoline Blend | 150                                   | 154    | 156    | 158    | 141    | 133    | -84                    | -43       | -14       |
| Ethanol % of Total Gasoline | 5.30                                  | 5.24   | 5.41   | 5.14   | 4.67   | 4.88   | 0.49                   | 0.66      | 0.82      |
| <b>PADD 05</b>              |                                       |        |        |        |        |        |                        |           |           |
| Production                  | 8                                     | 8      | 4      | 5      | 6      | 5      | -7                     | -8        | -8        |
| Imports                     | 3                                     | 3      | 3      | 5      | 5      | 3      | -3                     | -3        | -2        |
| Receipts from other regions | 114                                   | 104    | 110    | 101    | 107    | 90     | NA                     |           |           |
| Refiner/Blender Net Input   | 114                                   | 103    | 102    | 102    | 101    | 99     | 9                      | 13        | 14        |
| Ending Stocks               | 2,147                                 | 2,099  | 1,948  | 1,789  | 1,851  | 1,581  | 148                    | -21       | 31        |
| Wholesale Gasoline Demand   | 1,523                                 | 1,540  | 1,559  | 1,605  | 1,596  | 1,552  | -11                    | -27       | -15       |
| Conv Ethanol Gasoline Blend | 346                                   | 343    | 356    | 361    | 353    | 340    | 24                     | 57        | 77        |
| Ethanol % of Total Gasoline | 8.09                                  | 7.17   | 7.00   | 6.79   | 6.76   | 6.81   | 0.74                   | 1.10      | 1.10      |

## U. S. Petroleum Administrative for Defense Districts (PADDs)

