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# Recent Dairy Policy Publications with Selected Annotations

Suzanne L. Dash  
Judith Sommer

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RECENT DAIRY POLICY PUBLICATIONS WITH SELECTED ANNOTATIONS. By Suzanne L. Dash and Judith Sommer, National Economics Division, Economic Research Service, U.S. Department of Agriculture, Washington, D.C., May 1984. ERS Staff Report No. AGES840417.

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#### ABSTRACT

[A longstanding public interest in the economics of the dairy industry has fostered major research efforts on the local, State, regional, and national levels. Due to the large numbers of publications stemming from the above research efforts, several bibliographies covering the literature have appeared. This bibliography builds on those previous undertakings, but primarily deals with studies concerning public policy issues of the seventies and early eighties. One central topic of research in this area has been the high level of government intervention in the production and distribution of milk and milk products.]

Keywords: Dairy industry, price support, marketing, marketing orders.

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## CONTENTS

Introduction .....	1
Selected List of Additional Sources .....	2
Subject Index .....	3
Advertising .....	3
Assembly and Processing of Milk .....	3
Balancing and Reserves .....	3
Bibliographies and Reviews of Dairy Policy Research .....	3
Cooperatives .....	3
Cost of Production .....	4
Demand for Milk and Dairy Products .....	4
Economic Models .....	4
Farm Structure .....	4
Filled, Concentrated, Reconstituted, and Ultra-High Temperature Milk...	4
Foreign Dairy Analysis .....	4
Impacts of Regulation .....	5
Industry .....	5
Industry Structure .....	5
International Trade .....	5
Location .....	5
Marketing .....	6
Marketing Orders--Pricing .....	6
Marketing Orders--Other .....	6
Milk Supply .....	7
Policy Alternatives .....	7
Price Support Program .....	7
Pricing .....	7
Regional Analysis .....	8
Stability .....	8
Substitute Products .....	8
Transportation .....	8
Alphabetical Listing .....	9

# Recent Dairy Policy Publications with Selected Annotations

Suzanne L. Dash  
Judith Sommer

## INTRODUCTION

A longstanding public interest in the economics of the dairy industry has fostered major research efforts on the local, State, regional, and national levels. One central topic of research in the dairy area has been the high level of government intervention in the production and distribution of milk and milk products. Especially since 1970, research has looked into the costs of dairy programs on society, the effects of dairy company mergers, and effects of alternative public programs. Due to the large numbers of publications stemming from the above research efforts, several bibliographies covering the literature have appeared. This bibliography builds on those previous undertakings, but primarily deals with studies concerning public policy issues of the seventies and early eighties.

Previous bibliographies that may be useful to the reader include one of the earliest bibliographies found in the literature, a list of references relating to milk marketing published by the Giannini Foundation of Agricultural Economics at the University of California in 1936 (see citations on page 2). Two updates, focusing on milk pricing under regulation followed in 1954 and 1965.

Others would include Wolf's annotated bibliography on costs, margins, and efficiency in marketing dairy products and a companion piece comprised of published work on other aspects of milk marketing by Manchester.

The most extensive bibliography found in the literature was compiled by Spencer and Blanford in 1973. References covering 1840 through 1970 are listed in chronological order and are categorized by subject matter.

This report was prepared as a contributing study to USDA's review of Federal dairy programs.<sup>1</sup> The assistance of Richard G. Heifner and the other members of the dairy study team is greatly appreciated. In addition, the authors would like to express their thanks to all of the universities responding to the study team's request for a list of recent publications related to dairy programs.

<sup>1</sup> U.S. Department of Agriculture, Economic Research Service. Review of Existing and Alternative Federal Dairy Programs. Staff Report No. AGES840121, Jan. 1984.

SELECTED LIST OF ADDITIONAL SOURCES

Cummings, Orpha. Milk Marketing A Selected List of References. Giannini Foundation, Univ. of California, Mar. 1936.

. Milk Pricing Under Public Regulation in the United States--A Selected Bibliography. Giannini Foundation, Univ. of California, 1954.

Gianninni Foundation of Agricultural Economics. Milk Pricing Under Public Regulation in the United States--A Selected Bibliography: Supplement II. Univ. of California, Oct. 1965.

Manchester, Alden C. The Economics of Dairy Marketing: An Annotated Bibliography. ERS-290, U.S. Dept. Agr., Econ. Res. Serv., July 1966.

Manning, Travis W. Bibliography on Economics of the Dairy Industry, 1920-1949. Oklahoma A & M College, 1949.

Spencer, Leland, and Charles Blanford. Milk Marketing: Bibliography. Columbus, Ohio: Grid, Inc., 1973.

Williams, Sheldon W. Dairy Marketing Publications of the States and Federal Agencies Associated with the North Central Committee on Dairy Marketing Research, 1950-1961. N.C.-117, Champaign, Ill., 1962.

Wolf, A.F. A Bibliography on Costs, Margins and Efficiency in Marketing Dairy Products. U.S. Dept. Agr., Econ. Res. Serv., Mar. 1965.

## SUBJECT INDEX

### Advertising

- |  |                                      |
|--|--------------------------------------|
| 58. Cotton, B., and E. Babb (78)*                | 231. Thompson, S. (74)               |
| 68. Eiler, D., Cook, C., and<br>E. Kaminaka (76) | 232. Thompson, S., and D. Eiler (77) |
| 142. Krueger, E. (83)                            | 233. Thompson, S., and D. Eiler (75) |
| 230. Thompson, S. (79)                           |                                      |

### Assembly and Processing of Milk

- |                                     |  |
|-------------------------------------|--|
| 4. Babb, E. (67)                    | 54. Conner, M., Boehm, W., and<br>T. Pardue (76) |
| 27. Boehm, W., and M. Conner (77)   | 73. Fallert, R., and H. Lough (80)               |
| 31. Bressler, R. (40)               | 86. Gaumnitz, E. (63)                            |
| 33. Buccola, S., and M. Conner (79) |  |
| 51. Cobia, D., and E. Babb (64)     |  |

### Balancing and Reserves

- |  |   |
|--|---|
| 48. Christensen, R., Petterson, D.,<br>and A. Swainston (79) | 222. Smith, B., Metzger H.,<br>and F. Lasley (78) |
| 56. Cook, H. (70)  | 227. Strain, R. (73)                              |
| 149. Lasley, F., and L. Sleight (79)                         |   |

### Bibliographies and Reviews of Dairy Policy Research

- |                                      |                       |
|--------------------------------------|-----------------------|
| 60. Dahlgren (81)                    | 210. Roberts, T. (75) |
| 78. Forker, O., and B. Anderson (69) |                       |

### Cooperatives

- |   |  |
|---|--|
| 6. Babb, E. (80)                                    | 165. Manchester, A. (82)                           |
| 11. Babb, E., and A. Minden (72)                    | 167. March, R. (75)                                |
| 28. Boynton, R. (80)                                | 168. Masson, A., Masson, R., and<br>B. Harris (77) |
| 42. Carley, D. (76)                                 | 171. Masson, R., and P. Eisenstat (75)             |
| 57. Cook, H., Blakley, L., and<br>C. Berry (76)     | 199. Phillips M., and E. Babb (72)                 |
| 63. Deiter, D., Gruebele, J.,<br>and E. Babb (76)   | 227. Strain, R. (73)                               |
| 69. Eisenstat, P., Masson, R.,<br>and D. Roddy (76) | 235. Tucker, G., Monroe, W., and<br>J. Roof (77)   |
| 148. Lang, M., and others (80)                      | 245. U.S. Dept. Agr. (76)                          |
| 153. Lipson, F., and C. Batterton (75)              | 251. U.S. Dept. Agr. (71)                          |
|   | 252. U.S. Dept. Agr. (73)                          |

\* Numbers in parentheses refer to year published.



### Cost of Production

3. Babb, E. (81)

95. Gruebele, J. (76)

59. Cummins, D. (78)

### Demand For Milk and Dairy Products

24. Boehm, W. (75)

178. McCalla, A. (71)

25. Boehm, W. (76)

202. Purcell, J. (69)

26. Boehm, W., and E. Babb (75)

203. Raunika, R., Purcell, J., and  
J. Elrod (69)

29. Brandow, G. (61)

34. Burk, M. (69)

211. Robinson, T., and E. Babb (78)

88. George, P., and G. King (71)

212. Rojko, A. (57)

121. Hu, T. (67)

229. Thraen, C., Hammond, J., and B.

146. Ladd, G., and G. Updegraff (69)

Buxton (77)

### Economic Models

10. Babb, E., Bressler, D., and  
Pheasant (79)

195. Novakovic, A. and others (80)

13. Babb, E. and others (77)

201. Prato, A. (73)

70. Elterich, G., and B. Johnson (70)

204. Reed, A. (83)

98. Hallberg, M. (73)

205. Reyes, A. and others (81)

101. Hallberg, M. (73)

206. Riley, J. (74)

102. Hallberg, M., and R. Fallert (76)

214. Ruane, J., and M., Hallberg (72)

111. Harrington, D., and R. Sahi (76)

218. Salathe, L., Price, J. and  
K. Gadson (82)

120. Hsiao, J., and M. Kottke (68)

228. Thraen, C. (82)

122. Hutton, P., and Helmberger (82)

269. Wilson, R., and R. Thompson (67)

### Farm Structure

8. Babb, E., and R. Bohall (79)

176. Matulich, S. (78)

124. Jacobson, R. (80)

### Filled, Concentrated, Reconstituted And Ultra-High Temperature Milk

117. Hicks, C., and R. Beck (79)

190. Novakovic, A., and R. Aplin (81)

131. Jesse, E. (80)

193. Novakovic, A., and R. Story (80)

174. Mathis, A. (58)

209. Roberts, T. (80)

178. McCalla A. (71)

265. Whipple, G. (83)

187. Novakovic, A. (82)

266. Whipple, G. (82)

### Foreign Dairy Analysis

111. Harrington, D., and R. Sahi (74)

198. Perkins, B., Clark, J., and R.  
Marshall (69)

155. Louwes, S., Boot, J., and S.  
Wage (63)

216. Sahi, R., and D. Harrington (75)

156. Lu, E., and R. Marshall (73)

### Impacts of Regulation

- |                                     |  |
|-------------------------------------|--|
| 36. Buxton, B. (77)                 | 123. Ippolito, R., and R. Masson (78)  |
| 39. Buxton, B., and J. Hammond (74) | 132. Johnson, D. (75)                  |
| 61. Dahlgren, R. (80)               | 135. Kessel, R. (67)                   |
| 64. Dobson, W., and E. Babb (70)    | 144. Ladd, G. (69)                     |
| 65. Dobson, W., and B. Buxton (77)  | 169. Masson, R., and P. Eisenstat (77) |
| 66. Dobson, W., and L. Salathe (79) | 170. Masson, R., and P. Eisenstat (78) |
| 84. Fronk, D. (78)                  | 180. Metzger, H., and F. Webster (76)  |
| 86. Gaummitz, E. (63)               | 224. Spencer, L. (50)                  |
| 90. Graf, T. (79)                   | 234. Tinley, J. (38)                   |
| 96. Gruebele, J. (78)               | 248. U.S. Dept. Agr. (75)              |
| 105. Hallberg, M., and others (78)  | 255. U.S. Dept. Agr. (75)              |
| 115. Heine, D. (77)                 | 261. Vertress, J., and P. Emerson (79) |

### Industry

- |                       |                         |
|-----------------------|-------------------------|
| 17. Bartlett, R. (46) | 116. Henderson, J. (71) |
| 18. Black, J. (35)    | 197. Parker, R. (74)    |

### Industry Structure

- |  |   |
|--|---|
| 6. Babb, E. (80)                                       | 136. Kilmer, R., and D. Hahn (78)         |
| 28. Boynton, R. (80)                                   | 161. Manchester, A. (74)                  |
| 42. Carley, D. (76)                                    | 165. Manchester, A. (82)                  |
| 67. Dubov, I., and M. Downen (60)                      | 166. Manchester, A. (68)                  |
| 69. Eisenstat, P., Masson, R., and<br>D. Roddy (75)    | 171. Masson, R., and P. Eisenstat<br>(75) |
| 73. Fallert, R., and H. Lough (80)                     | 207. Riley, J., and L. Blakley (76)       |
| 74. Fallert, R., Lough, H., and<br>R. Beck (78)        | 213. Rourke, J. (82)                      |
| 97. Gruebele, J., Williams, S., and<br>R. Fallert (70) | 239. U.S. Congress (66)                   |
| 128. Jacobson, R. (78)                                 | 268. Williams, S., and others (70)        |

### International Trade

- |   |   |
|---|---|
| 37. Buxton and Frick (75)                             | 217. Salathe, L., Dobson, W., and<br>G. Peterson (77) |
| 83. Frick, G., Davulis, J., and<br>and B. Buxton (75) | 238. U.S. Congress (72)                               |
| 90. Graf, T. (79)                                     | 241. U.S. Congress (76)                               |
| 132. Johnson, D. (75)                                 | 248. U.S. Dept. Agr. (75)                             |
| 182. Miller, R. (71)                                  | 249. U.S. Dept. Agr. (77)                             |
| 194. Novakovic, A., and R.<br>Thompson (77)           | 250. U.S. Dept. Agr. (81)                             |

### Location

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| 27. Boehm, E., and M. Conner (77)    | 139. Kloth, D., and L. Blakley (71)   |
| 33. Buccolas, S., and M. Conner (79) | 179. McDowell, F., and M. Conner (82) |

### Marketing

- |  |   |
|--|---|
| 4. Babb, E. (67)                       | 74. Fallert, R., Lough, H., and R. Beck (78)  |
| 11. Babb, E., and A. Minden (72)       | 160. Manchester, A. (77)                      |
| 53. Community Nutrition Institute (75) | 235. Tucker, G., Monroe, W., and J. Roof (77) |

### Marketing Orders--Pricing

- |  |   |
|--|---|
| 7. Babb, E., Banker, D., and G. Nelson (76)    | 110. Hammond, J., and T. Graf (69)              |
| 10. Babb E., Bressler D., and J. Pheasant (79) | 112. Harris, E. (58)                            |
| 19. Blakley, L. (80)                           | 126. Jacobson, R. (76)                          |
| 21. Blakley, L., and D. Kloth (72)             | 127. Jacobson, R. (78)                          |
| 55. Cook, H. (77)                              | 130. Jacobson, R., and D. Kaufman (76)          |
| 64. Dobson, W., and E. Babb (70)               | 133. Johnson, S. (49)                           |
| 72. Fallert, R., and B. Buxton (78)            | 143. Kwoka, J. (77)                             |
| 80. Frank, G., Peterson, G. and H. Hughes (77) | 144. Ladd, G. (69)                              |
| 87. Gaumnitz E., and O. Reed (37)              | 151. Leathers, H., and J. Hammond (80)          |
| 89. Gordon, R., and S. Hanke (78)              | 166. Manchester, A. (68)                        |
| 93. Graf, T., and R. Jacobson (73)             | 168. Masson, A., Masson, R., and B. Harris (77) |
|  | 170. Masson, R., and P. Eisenstat (78)          |
|  | 200. Pierce, C. (49)                            |
|  | 208. Riley, R., and L. Blakley (75)             |
|  | 223. Song, D., and M. Hallberg (82)             |
|  | 264. Welden, W. (49)                            |

### Marketing Orders--Other

- |                                       |  |
|---------------------------------------|--|
| 1. Alagia, D. (79)                    | 84. Fronk, D. (78)                           |
| 8. Babb, E., and R. Bohall (79)       | 123. Ippolito, R., and R. Masson (78)        |
| 9. Babb, E., and R. Boynton (79)      | 135. Kessel, R. (67)                         |
| 12. Babb, E., and J. Pratt (77)       | 142. Krueger, E. (83)                        |
| 13. Babb, E., and others (77)         | 172. Masson, R., and P. Eisenstat (80)       |
| 14. Babb, E., and others (83)         | 173. Masson, R., Fones, R., and J. Hall (78) |
| 16. Bartlett, R. (74)                 | 180. Metzger, H., and F. Webster (76)        |
| 41. Capponi, S. (82)                  | 184. Moede, H. (72)                          |
| 44. Cassells, J. (38)                 | 185. Mueller, W. (79)                        |
| 49. Cladakis, N., and A. Pollard (42) | 193. Novakovic, A., and R. Story (80)        |
| 65. Dobson, W., and B. Buxton (77)    | 199. Phillips, M., and E. Babb (72)          |
| 66. Dobson, W., and L. Salathe (79)   | 213. Rourke, J. (82)                         |
| 71. Fallert, R. (80)                  | 224. Spencer, L. (50)                        |
| 78. Forker, O., and B. Anderson (69)  | 242. U.S. Dept. Agr. (75)                    |
| 81. Freeman, R., and E. Babb (64)     | 243. U.S. Dept. Agr. (82)                    |
|                                       | 244. U.S. Dept. Agr. (69)                    |
|                                       | 255. U.S. Dept. Agr. (75)                    |

### Milk Supply

- |  |  |
|--|--|
| 2. Alicbusan, A., and G. Elterich (77)           | 106. Halvorson, H. (58)                |
| 15. Barker, R. (61)                              | 108. Hammond, J. (74)                  |
| 45. Chen, D., Courtneyn, R., and A. Schmitz (72) | 134. Kelley, P., and D. Knight (65)    |
| 62. Dean, G. (60)                                | 186. Nelson, A., and others (79)       |
| 70. Elterich, G., and B. Johnson (70)            | 196. Paris, Q., and others (70)        |
| 101. Hallberg, M. (73)                           | 270. Wipf, L., and J. Houck (67)       |
|  | 272. Zepp, G., and R. McAlexander (69) |

### Policy Alternatives

- |  |  |
|--|--|
| 9. Babb, E., and R. Boynton (79)             | 188. Novakovic, A. (82)                            |
| 36. Buxton, B. (77)                          | 192. Navakovic, A., and E. Babb (79)               |
| 38. Buxton, B., and J. Hammond (79)          | 207. Riley and Blakley (76)                        |
| 72. Fallert, R., and B. Buxton (78)          | 208. Riley, J., and L. Blakley (75)                |
| 94. Graf, T., McBride, G., and R. Story (63) | 217. Salathe, L., Dobson, W., and G. Peterson (77) |
| 104. Hallberg, M., and B. Smith (75)         | 219. Schnittker, J., and others (79)               |
| 105. Hallberg, M., and others (78)           | 236. U.S. Congress (80)                            |
| 118. Hjort, H. (80)                          | 240. U.S. Congress (55)                            |
| 159. Manchester, A. (78)                     | 257. U.S. Dept. Agr. (73)                          |

### Price Support Program

- |                                     |  |
|-------------------------------------|--|
| 38. Buxton, B., and J. Hammond (79) | 115. Heien, D. (77)                          |
| 39. Buxton, B., and J. Hammond (74) | 141. Kriesel, H. (55)                        |
| 52. Collar, L., and J. Siebert (82) | 173. Masson, R., Fones, R., and J. Hall (78) |
| 71. Fallert, R. (80)                | 191. Novakovic, A., and E. Babb (79)         |
| 91. Graf, T. (79)                   | 192. Novakovic, A., and E. Babb (79)         |
| 96. Gruebele, J. (78)               | 244. U.S. Dept. Agr. (69)                    |
|                                     | 261. Vertress, J. and P. Emerson (79)        |

### Pricing

- |                                      |   |
|--------------------------------------|---|
| 3. Babb, E. (81)                     | 113. Harris, E. (67)                              |
| 5. Babb, E. (62)                     | 129. Jacobson, R., Hammond, J., and T. Graf (78)  |
| 19. Blakley, L. (80)                 | 159. Manchester, A. (78)                          |
| 22. Blakley, L., and J. Riley (74)   | 160. Manchester, A. (77)                          |
| 30. Bressler, R. (58)                | 162. Manchester, A. (80)                          |
| 32. Bressler, R., and D. Clarke (55) | 163. Manchester, A. (75)                          |
| 35. Buxton, B. (78)                  | 164. Manchester, A. (71)                          |
| 41. Capponi, S. (82)                 | 175. Mathis, A., Freidley, D., and S. Levine (72) |
| 42. Carley, D. (76)                  | 215. Russell, S. (67)                             |
| 46. Christ, P. (80)                  | 221. Smith, A., and R. Knutson (79)               |
| 53. Community Nutrition Inst. (75)   | 226. Story, R., and R. Wellington (81)            |
| 71. Fallert, R. (80)                 | 245. U.S. Dept. Agr. (76)                         |
| 77. Forest, H. (75)                  | 256. U.S. Dept. Agr. (72)                         |
| 92. Graf, T., and J. Hammond (68)    | 257. U.S. Dept. Agr. (73)                         |
| 95. Gruebele, J. (76)                | 263. Walker, S. (53)                              |
| 103. Hallberg, M., and R. King (80)  | 267. Whitaker, M. (78)                            |
| 104. Hallberg, M., and B. Smith (75) |   |

### Regional Analysis

- |  |  |
|--|--|
| 2. Alicbusan, A., and G. Elterich (77) | 145. Ladd, G. (74)                             |
| 3. Babb, E. (81)                       | 179. McDowell, F., and M. Conner (82)          |
| 22. Blakley, L., and J. Riley (74)     | 180. Metzger, H., and F. Webster (76)          |
| 33. Buccolas, S., and M. Conner (79)   | 183. Milligan, R. (78)                         |
| 43. Carley, D. (76)                    | 186. Nelson, A., and others (79)               |
| 61. Dahlgren, R. (80)                  | 202. Purcell, J. (69)                          |
| 67. Dubov, I., and M. Downen (60)      | 222. Smith, B., Metzger H., and F. Lasley (78) |
| 82. French C. and E. Kehrberg (60)     | 226. Story, R., and R. Wellington (81)         |
| 84. Fronk, D. (78)                     | 251. U.S. Dept. Agr. (71)                      |
| 104. Hallberg, M., and B. Smith (75)   | 266. Whipple, G. (82)                          |
| 105. Hallberg, M., and others (78)     | 268. Williams, S., and others (70)             |
| 108. Hammond, J. (74)                  |  |
| 120. Hsiao, J., and M. Kottke (68)     |  |

### Stability

- |                        |                             |
|------------------------|-----------------------------|
| 99. Hallberg, M. (82)  | 199. Phillips and Babb (72) |
| 100. Hallberg, M. (80) |                             |

### Substitute Products

- |  |                                   |
|--|-----------------------------------|
| 40. Call, D. (70)                                | 246. U.S. Dept. Agr. (74)         |
| 109. Hammond, J., Coulter, S., and R. Sirny (69) | 247. U.S. Dept. Agr. (73)         |
| 125. Jacobson, R. (69)                           | 249. U.S. Dept. Agr. (77)         |
| 182. Miller, R. (71)                             | 260. U.S. Int'l. Trade Comm. (79) |

### Transportation

- |                       |                    |
|-----------------------|--------------------|
| 31. Bressler, R. (40) | 184. Moede, H (72) |
| 113. Harris, E. (67)  |                    |

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1. Alagia, D. Paul. "Federal Milk Market Order Regulations: A Defense," South Dakota Law Review, Vol. 24 (1979), 592-606.
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4. \_\_\_\_\_. Effects of Assembly, Processing, and Distribution Costs on Marketing Fluid Milk. Research Bulletin 828, Purdue Agr. Exp. Sta., Feb. 1967.
5. \_\_\_\_\_. "Intermarket Milk Price Relationships and Implications," Journal of Farm Economics, Vol. 44, No. 5 (Dec. 1962), 1567-71.
6. \_\_\_\_\_. Milk Marketing Services Provided by Cooperative and Proprietary Firms. Station Bulletin 279, Indiana Agr. Exp. Sta., May 1980.
7. \_\_\_\_\_, D.E. Banker, and G.L. Nelson. Price Relationships Among Federal Milk Marketing Orders. Bulletin 146, Purdue Agr. Exp. Sta., Nov. 1976.

Three models were developed as management planning tools to test various policies employed by dairy cooperatives to implement a centralized production and marketing program. The models included a quadratic programming model used to determine geographic price structures, an aggregate model of milk production and sales, and a cooperative model incorporating policy options available to cooperatives. Effects of various pooling plans on distribution of returns to producers and on regional milk production are demonstrated.

8. Babb, Emerson M., and R. Bohall. "Marketing Orders and Farm Structure," Structural Issues on American Agriculture. AER-438, U.S. Dept. Agr., Econ. Stat. Coop. Serv., Nov. 1979.
9. Babb, Emerson W., and R.D. Boynton. Current and Potential Uses of Federal Marketing Orders, EC-499, Indiana Coop. Ext. Serv., May 1979.
10. Babb, Emerson M., D.A. Bressler, and J.W. Pheasant. "Analysis of Factors Associated with Over-Order Prices in Federal Milk Orders," American Journal of Agricultural Economics, Vol. 61, No. 5 (Dec. 1979), 1142.

Cooperatives have obtained payments for Class I milk above minimum Federal order prices in most Federal marketing orders. These payments have raised questions as to whether milk prices have been unduly enhanced. Estimates of impacts of factors which have influenced overorder payments such as cooperative concentration, processor concentration, price relationships among Federal orders, Class I utilization, and barriers to the movement of milk are made. Measures of price relationships among orders were significant and accounted for much of the variation in over-



order payments. Cooperative and processor concentration were not found to be significant. The impact of the remaining variables was also minor. A dairy sector model was used to project the consequences of over-order payments on producers, processors, and consumers. The projections revealed relatively minor impacts.

11. Babb, Emerson, and Arlo J. Minden. "A Total Marketing System for U.S. Dairy Cooperatives," American Journal of Agricultural Economics, Vol. 54, No. 2 (May 1972), 271-74.
  12. Babb, Emerson, and J.E. Pratt. Projections of Federal Milk Marketing Order Performance Under Alternative Pricing and Pooling Provisions. Station Bulletin 171, Purdue Agr. Exp. Sta., Oct. 1977.
  13. Babb, Emerson, and others. Economic Model of Federal Milk Marketing Order Policy Simulator - Model A. Station Bulletin 158, Purdue Agr. Exp. Sta., Apr. 1977.
  14. Babb, Emerson, and others. "Milk Marketing Orders," Federal Marketing Programs in Agriculture: Issues and Options. (Eds.) Walter Armbruster, Dennis Henderson, and Ronald Knutson. Oakbrook, Ill.: The Farm Foundation, 1983.
- This chapter evaluates the performance of marketing orders, identifies key issues of marketing orders and describes some alternative forms of order regulations. In the early years of orders, income enhancement of farmers was given much importance. However, the price support program has become the dominant policy instrument used to achieve income objectives over time. Today, Federal orders focus on increasing market security for farmers, redressing imbalances in market power between farmers and processors, providing market information, promoting more equitable sharing of returns from milk sales among producers, and increasing marketing efficiency. Five levels of market intervention involving Federal orders--ranging from deregulation to orders designed to solve equity problems--are described and their consequences assessed.
15. Barker, Randolph. "Supply Functions for Milk Under Varying Price Situations," Journal of Farm Economics, Vol. 43, No. 3 (Aug. 1961), 651.
  16. Bartlett, Roland Willey. "Bringing Federal Order Class I Prices Up To Date And In Line With Anti-Trust Regulations," Dairy Marketing Facts. Univ. of Illinois, Jan. 1974.
  17. . The Milk Industry: A Comprehensive Survey of Production, Distribution, and Economic Importance. New York: The Roland Press Company, 1946.
  18. Black, John D. The Dairy Industry and the AAA. Washington, D.C.: The Brookings Institution, 1935.
  19. Blakley, Leo V. "Milk Prices and the Public Interest: Discussion," American Journal of Agricultural Economics, Vol. 62, No. 2 (1980), 298-299.

20. \_\_\_\_\_ . "Why Not Flat Class I Pricing of Milk Nationwide?" Proceedings of 22nd Midwest Milk Marketing Conference. Univ. of Wisconsin, Apr. 1967, pp. 60-61.
21. \_\_\_\_\_ , and Donald Kloth. "Price Alignments and Movements of Class I Milk Between Markets," American Journal of Agricultural Economics, Vol. 54, No. 3 (Aug. 1972), 496.
22. Blakley, Leo V., and John B. Riley. "Regional Gains and Losses for Consumers and Producers from Changes in Fluid Milk Prices," Southern Journal of Agricultural Economics, Vol. 6, No. 2 (Dec. 1974), 1-8.
23. Blaylock, James R., and David M. Smallwood. Effects of Household Socio-economic Features on Dairy Purchases. TB-1686, U.S. Dept. Agr., Econ. Res. Serv., Aug. 1983.
24. Boehm, William T. Household Consumption of Perishable Manufactured Dairy Products: Frozen Desserts and Specialty Products. Station Bulletin, Purdue Agr. Exp. Sta., Sept. 1975.
25. \_\_\_\_\_ . The Household Demand for Fluid Milk in the United States with Regional Consumption Projections Through 1990. Res. Div. Bulletin 120, Va. Polytechnic Inst., Dec. 1976.

Per capita consumption rates of fluid milk in the United States are forecast to remain relatively stable through the 1980's with regional changes likely to occur with shifts in population. While the response in fluid consumption to changes in income were quite small, the results suggest that consumption rates are relatively responsive to changes in the distribution of income. Programs that increase food buying incomes for the poor may be expected to result in increased average milk consumption rates. Ethnic composition and age distribution were also found to strongly influence per capita consumption of fluid milk.

26. \_\_\_\_\_ , and E.M. Babb. Household Consumption of Storable Manufactured Dairy Products. Station Bulletin 85, Purdue Agr. Exp. Sta., Mar. 1975.
27. Boehm, William T., and M.C. Conner. "Technically Efficient Movement Patterns and Manufacturing Plant Locations Under Regionally Coordinated Milk Assembly," American Journal of Agricultural Economics, Vol. 59, No. 3 (Aug. 1977), 520-524.

This paper investigates the seasonal raw milk movement patterns and manufacturing plant locations that would minimize the combined costs of assembling all raw milk produced in a specific geographic region and processing the raw milk not delivered to bottling plants for fluid use into a manufactured product form. The analysis is conducted for the Southeast. Results indicate that if total cost of milk assembly and hard product processing are to be minimized over the year, it must be possible to alter milk movement patterns on a seasonal and inter-seasonal basis. This would support the idea that there are strong economic incentives encouraging the development of highly coordinated regional milk assembly system. Economies of size in the processing of raw milk into manufactured products tend to be relatively more

important than transport costs in determining the optimal number of plants.

28. Boynton, Robert, and Glynn McBride. Relationships Between Cooperatives and Proprietary Handlers in U.S. Grade A Milk Markets. Agr. Exp. Sta. Report 393, Michigan State Univ., 1980.
29. Brandow, G.E. Interrelations Among Demand for Farm Products and Implications for Control of Market Supply. Bulletin 680, Pennsylvania Agr. Ext. Serv., Aug. 1961.
30. Bressler, R.G., Jr. "Pricing Raw Products in Complex Milk Markets," Agricultural Economics Research, Vol. 10, No. 4 (Oct. 1958), 113-32.

A simplified model of the dairy industry is developed, based on static conditions and perfect competition. The model is then modified to admit dynamic forces, especially in the form of seasonal changes in supply and demand. Noncompetitive elements are then introduced in the form of segmented markets and discriminatory pricing, based on the ultimate utilization of the raw product. Finally, these models are used to suggest principles of efficient pricing and utilization, within the constraint of a classified system of discriminatory prices.

31. \_\_\_\_\_. "Transportation and Country Assembly of Milk," Journal of Farm Economics, Vol. 22, No. 1 (Feb. 1940), 220-24.
32. \_\_\_\_\_, and D.A. Clarke, Jr. "Resale Milk Price Control--Outmoded and Antisocial?" Journal of Farm Economics, Vol. 37, No. 2 (May 1955), 280-91.
33. Buccola, Steven T., and M.C. Conner. "Least-Cost Milk Assembly and Manufacturing Plant Locations for the Northeastern Dairy Industry," Journal of the Northeastern Agricultural Economics Council, Vol. 8, No. 1 (Apr. 1979), 6-12.
34. Burk, Margurite C. Consumption of Dairy Products - An Analysis of Trends, Variability, and Prospects. Technical Bulletin 268, Minnesota Agr. Exp. Sta., 1969.
35. Buxton, B.M. The Disappearance of the Grade B Milk Market--A Matter of Policy Choice. AER-416, U.S. Dept. Agr., Econ. Stat. Coop. Serv., Dec. 1978.
36. \_\_\_\_\_. "Welfare Implications of Alternative Classified Pricing Policies for Milk," American Journal of Agricultural Economics, Vol. 59, No. 3 (Aug. 1977), 525-29.

An aggregate model of the U.S. dairy economy is used to estimate the impact of changing the classified pricing policy on retail prices of fluid and manufactured dairy products, returns to dairy farmers, and a measure of whether society gains or loses by such a policy change. The author concludes that the net social gains to lowering the Class I differential are quite small relative to the impact on dairy farmers' gross income and total consumer expenditures. Hence, classified pricing of milk is much more important from the viewpoint of income transfers

between consumers and producers than from the viewpoint of the net gain or loss to society.

37. \_\_\_\_\_, and George E. Frick. Can the United States Compete with Dairy Exporting Nations? Staff Paper P75-10, Dept. of Agr. and Applied Economics, Univ. of Minnesota, June 1975.
38. Buxton, B.M., and J.W. Hammond. "Alternative Price Support Programs for Dairy Farmers," Minnesota Agricultural Economist, No. 605 (Jan. 1979).
39. \_\_\_\_\_. "Social Cost of Alternative Dairy Price Support Levels," American Journal of Agricultural Economics, Vol. 56, No. 2 (May 1974) 286-91.
40. Call, David L. Fluid Milk Substitutes - Current Status and Expected Trends. Staff Paper No. 7, Cornell Univ., Feb. 1970.

Current technology for imitation and filled milk and the potential markets (domestic and international) are evaluated. The potential seems to be much greater internationally as fluid milk is less readily available and regulatory activities are not as numerous in some countries as in the United States. The failure of imitation milk is believed to be due to low nutrition levels and poor taste. For filled milk to be viable, a protein of relatively high nutritional quality and blend taste would have to be found.

41. Capponi, S. "Milk Marketing Price Premiums Reflect Added Services, Costs," Farmer Cooperatives, Vol. 49, No. 9 (Dec. 1982).

Over-order premiums negotiated by cooperatives (Class I price above announced minimum Class I price) can be attributed to services supplied by the cooperative and also to possible use of market power that results in price enhancement. Class I premiums were compared with cooperative pay prices; in general, over-order payments are cost justified.

42. Carley, D. H. "Administered Pricing by Cooperatives, Effect on Producer Prices and Sales of Fluid Milk," Southern Journal of Agricultural Economics, Vol. 8, No. 1 (1976), 137-42.
43. \_\_\_\_\_. "Factors Affecting Producer Bargaining Power in Southern Fluid Milk Markets," Southern Journal of Agricultural Economics, Vol. 1, No. 1 (Dec. 1979), 65-72.
44. Cassells, John M. "The Future of Milk Control," Journal of Farm Economics, Vol. 20, No. 1 (Feb. 1938), 188-95.
45. Chen, D., R. Courtney, and A. Schmitz. "A Polynomial Lag Formulation of Milk Production Response," American Journal of Agricultural Economics, Vol. 54, No. 1 (Feb. 1972), 77-83.
46. Christ, Paul G. "An Appraisal of the U.S. Government's Role in Milk Pricing," American Journal of Agricultural Economics, Vol. 62, No. 2 (May 1980), 279-87.

47. \_\_\_\_\_. "Government Constraints on the Dairy Industry System," Proceedings of a Workshop on Systems Analysis in the Dairy Industry. U.S. Dept. Agr., Econ. Res. Serv., Apr. 1973.
48. Christensen, Rondo A., Douglas E. Petterson, and Allan H. Swainston. The Function and Cost of Market Milk Reserves and Balancing Supply with Demand. Study Paper 79-8, Economic Research Institute, Utah State Univ., Sept. 1979.
49. Cladakis, N.J., and Anson J. Pollard. "Some Economic Problems Encountered in Milk Control Administration," Journal of Farm Economics, Vol. 24, No. 1 (Feb. 1942), 326-32.
50. Clement, W.E., P.L. Henderson, and C.P. Eley. Effect of Different Levels of Promotional Expenditures on Sales of Fluid Milk. ERS-259, U.S. Dept. Agr., Econ. Res. Serv., Oct. 1965.
51. Cobia, D.W., and E.M. Babb. "An Application of Equilibrium Size of Plant Analysis to Fluid Milk Processing and Distribution," Journal of Farm Economics, Vol. 46, No. 1 (Feb. 1964), 109-16.
52. Collar, Larry S. and John W. Siebert. Simulation of a California Dairy Under Price Support Program Changes. Calif. Coop. Ext. Serv., 1982.
53. Community Nutrition Institute. Proceedings of Conference on Milk Prices and the Market System. Washington, D.C., Dec. 4-5, 1975.
54. Conner, M.C., W.T. Boehm, and T.A. Pardue. "Economies of Size in Processing Manufactured Dairy Products and Implications for the Southern Dairy Industry," Southern Journal of Agricultural Economics, Vol. 8, No. 2 (Dec. 1976), 103-07.
55. Cook, Hugh L. "Federal Order Pricing of Milk Under Fire," Economic Issues. Dept. of Agr. Econ., Univ. of Wisconsin, Jan. 1977.
56. \_\_\_\_\_. "The Standby Milk Pool - A New Strategic Bargaining Device," American Journal of Agricultural Economics, Vol. 52, No. 1 (Feb. 1970), 103-08.
57. \_\_\_\_\_, Leo Blakley, and Calvin Berry. Review of Eisenstat, Philip, Robert T. Masson, and David Roddy, An Economic Analysis of the Associated Milk Producers, Inc. Monopoly. Research Bulletin R2790, Wisconsin Agr. Exp. Sta., Jan. 1976.
58. Cotton, B.C., and E.M. Babb, "Consumer Response to Promotional Deals on Dairy Products," Journal of Marketing, Vol. 42, No. 3 (July 1978), 109-13.
59. Cummins, David E. Comparison of Production Costs of Grade A and Grade B Milk. ESCS-05, U.S. Dept. Agr., Jan. 1978.
60. Dahlgren, Roger A. Dairy Marketing and Policy Analysis; A Critical Review of Recent Empirical Studies. Economics Special Report No. 62. Department of Economics and Business, N.C. State Univ., Mar. 1981.

This review summarizes recent dairy marketing studies. The research reviewed is organized into nonpolicy research and policy research. Nonpolicy studies are summarized to facilitate comparisons among models and resulting estimates. Policy research is concerned with the effect of altering policy variables or eliminating entire programs. Differing features of each study are explicitly stated to allow comparisons among various studies.

61. Dahlgren, Roger A. "Welfare Costs and Interregional Income Transfers Due to Regulation of Dairy Markets," American Journal of Agricultural Economics, Vol. 62, No. 2 (May 1980), 288-96.

A reactive programming model was used to estimate the interregional transfers and welfare losses created by the current regulatory structure imposed on U.S. dairy markets. The 10 largest marketing order areas and a sample of 6 of the remaining markets were used in the estimation. Results indicate that while total milk quantities, expenditures, and receipts will change relatively little with the presence or absence of regulation, the allocation of production between grade A and grade B producers will vary dramatically.

62. Dean, Gerald. "Consideration of Time and Carryover Effects in Milk Production Functions," Journal of Farm Economics, Vol. 42, No. 5 (Dec. 1960), 1512.
63. Deiter, R.E., J.W. Gruebele, and E.M. Babb. "Services Provided by Dairy Cooperatives and What They Cost." Paper presented at Midwest Milk Marketing Conference, Columbus, Ohio, Mar. 1976, 79-102.
64. Dobson, William D., and E.M. Babb. An Analysis of Alternative Price Structures and Intermarket Competition in Federal Order Markets. Research Bulletin No. 870. Purdue Univ. Agr. Exp. Sta., Dec. 1970.
65. \_\_\_\_\_, and Boyd M. Buxton. Analysis of the Effects of Federal Milk Orders on the Economic Performance of U.S. Milk Markets. Res. Bulletin R2897. Univ. of Wisconsin, Oct. 1977.
66. Dobson, William D., and Larry E. Salathe. "The Effects of Federal Marketing Orders on the Economic Performance of U.S. Milk Markets," American Journal of Agricultural Economics, Vol. 61, No. 2 (May 1979), 213-27.

Class I price differentials maintained by the U.S. Department of Agriculture and producers during 1965-75 generated Grade A milk supplies in excess of fluid needs and reserves for the Federal order system. As required by specified norms, USDA has adopted Federal milk order provisions which reduce pronounced seasonality of milk production and lessen certain types of erratic and extreme price variation. If Federal milk orders were eliminated and cooperatives and State agencies were barred from replacing the orders, then fluid milk markets would be characterized by lower Class I differentials, greater milk price variability, and smaller Grade A milk surpluses.



67. Dubov, Irving, and M. Lloyd Downen. "The Role of Market Structures and Other Institutional Arrangements in the Midwest-Eastern Seaboard Conflict of Interest in the Production and Distribution of Milk," Journal of Farm Economics, Vol. 42, No. 5 (Dec. 1960), 1313-27.
68. Eiler, D.A., C.B. Cook, and E.C. Kaminaka. An Examination of Dairy Farmer Funded Nutrition Education Programs in New York State. A.E. Staff Paper No. 76-26, Dept. of Agricultural Economics, Cornell Univ., July 1976.
69. Eisenstat, Philip, Robert T. Masson, and David Roddy. "An Economic Analysis of the Associated Milk Producers, Inc., Monopoly." Unpublished paper prepared for the U.S. Dept. of Justice, 1975.
70. Elterich, G.J., and B. Johnson. A Recursive Milk Production Model, Bulletin 381, Delaware Agr. Exp. Sta., June 1970.
71. Fallert, Richard F. Milk Pricing--Past, Present, the 80's. Staff Report, U.S. Dept. Agr., Econ. Stat. Serv., Nov. 1980.
72. \_\_\_\_\_, and B.M. Buxton. Alternative Pricing Policies for Class I Milk Under Federal Marketing Orders--Their Economic Impact. AER-401, U.S. Dept. Agr., Econ. Res. Serv., 1978.
73. Fallert, Richard F., and Harold W. Lough. "Changing Structure of the Fluid Milk Processing and Distribution System." Paper presented at the American Agricultural Economics Association annual meeting at Champaign-Urbana, July 1980.
74. \_\_\_\_\_, Harold W. Lough, and Robert L. Beck. "Food Chain Integration and Fluid Milk Marketing," Journal of Dairy Science, Vol. 61, No. 7 (July 1978).
75. Fallert, Richard F., and A.J. Reed. "Propensity to Produce Milk by State and Region, 1955-82." U.S. Dept. Agr., Econ. Res. Serv., in process, 1984.
76. Forest, H.L., "Federal Milk Marketing Orders--Their Strength; Their Adversaries; Their Future." Speech presented at the annual meeting of the American Farm Bureau Federation, Miami Beach, Fla., Jan. 1979.
77. Forest, H.L. "A Modified Minnesota-Wisconsin Price," Memorandum to Market Administrators. Washington, D.C., Apr. 1, 1975.
78. Forker, Olan D., and Brenda A. Anderson. An Annotated Bibliography on Price Discrimination. AER-241, Cornell Univ., Feb. 1969.
79. \_\_\_\_\_. An Economic Evaluation of Methods Used Under Marketing Order Legislation (Voluntary Organizations and Marketing Boards), AER-216, Cornell Univ., Apr. 1967.
80. Frank, Gary, G.A. Peterson, and Harlan Hughes. "Class I Differential: Cost of Production Justification," Economic Issues. No. 8, Univ. of Wisconsin, Apr. 1977.

81. Freeman, R.E., and E.M. Babb. Marketing Area and Related Issues in Federal Milk Orders. Research Bulletin 782, Purdue Agr. Exp. Sta., June 1964.
82. French, Charles E., and Earl W. Kehrberg. "The Comparative Advantage Aspects of the Midwest-Eastern Seaboard Conflict of Interest in the Production and Distribution of Milk," Journal of Farm Economics, Vol. 42, No. 5 (Dec. 1960), 1297-310.
83. Frick, George E., John P. Davulis, and Boyd M. Buxton. "Impact of Alternative Trade Policies on Dairy Farm Net Cash Income, 1957-80," Journal of the Northeastern Agricultural Economics Council, Vol. 4, No. 2 (Oct. 1975), 23-31.
84. Fronk, D.R. Farm Size and Regional Distribution of the Benefit Under Federal Milk Market Regulation, Staff Report, Federal Trade Commission, May 1978.

The established blend price under marketing orders and the estimated longrun competitive price are compared. The difference is considered the benefit to dairy farmers per unit of milk. Thus, benefits under the Federal order program are related to size of dairy product sales. The distribution of regional benefits was estimated under alternative supply elasticities and alternative price enhancement levels. Benefits were found to vary by size of farm and among regions of the country.

85. Gaumnitz, E.W. "Economic Problems Associated with Milk Marketing Orders," Journal of Farm Economics, Vol. 37, No. 5 (Dec. 1955), 1016-21.
86. \_\_\_\_\_. "Effect of Government Programs on the Dairy Processing Industry," Journal of Farm Economics, Vol. 45, No. 5 (Dec. 1963), 1303-09.
87. \_\_\_\_\_, and Otie M. Reed. Some Problems Involved in Establishing Milk Prices. U.S. Dept. Agr., Agr. Adjustment Admin., 1937.

The U.S. dairy industry is described with emphasis on fluid markets. The development of the theory of milk pricing is detailed first by considering simple markets then considering more complex aspects by varying certain assumptions. The authors also discuss potential and existing milk pricing problems and some considerations relative to public policy.

88. George, P.S., and G.A. King. Consumer Demand for Food Commodities in the United States and Projections to 1980, Giannini Foundation Monograph No. 26, California Agr. Exp. Sta., Mar. 1971.
89. Gordon, Robert M., and Steve H. Hanke. "Federal Milk Marketing Orders: A Policy in Need of Analysis," Policy Analysis, Winter 1978, 23-31.
90. Graf, T.F. Impact of the Trade Act of 1979 on the Dairy Industry. Agr. Econ. Staff Paper No. 167, Univ. of Wisconsin, Aug. 1979.

91. \_\_\_\_\_. Statement on Dairy Price Support Program. Agr. Econ. Staff Paper 159, Univ. of Wisconsin, Apr. 1979.
92. \_\_\_\_\_, and J.W. Hammond. Analyses of Manufacturing Grade Milk Prices in Minnesota and Wisconsin and Various Measures of Manufacturing Milk Values. Staff Paper Series No. 23, Univ. of Wisconsin, July 1968.
93. Graf. T.F., and Robert E. Jacobson. Resolving Grade B Milk Conversion and Low Class I Utilization Pricing and Pooling Problems. Wisconsin Research Report R2503, Univ. of Wisconsin, June 1973.
94. Graf. T.F., Glynn McBride, and Robert Story. An Investigation of the Dairy Problem and Analysis of Program Alternatives. Agr. Econ. Extension Bulletin 267, Cornell Univ., 1963.
95. Gruebele, James W. "An Analysis of Production Cost Formulas as a Basis for Pricing Milk," Illinois Agricultural Economics, Vol. 16, No. 1 (Jan. 1976), 10-16.
96. \_\_\_\_\_. "Effects of Removing the Dairy Price-Support Program," Illinois Agricultural Economics, Vol. 18, No. 2 (July 1978), 30-38.
97. \_\_\_\_\_, Sheldon W. Williams, and Richard F. Fallert. "Impact of Food Chain Procurement Policies on the Fluid Milk Industry," American Journal of Agricultural Economics, Vol. 52, No. 3 (Aug. 1970), 395-402.
98. Hallberg, M.C. "Aggregate Supply Model for the Dairy Industry Based on Biological as well as Economic Considerations," Proceedings of a Workshop on Systems Analysis in the Dairy Industry, U.S. Dept. Agr., Econ. Res. Serv., 1973.
99. \_\_\_\_\_. "Cyclical Instability in the U.S. Dairy Industry Without Government Regulations," Agricultural Economics Research, Vol. 34, No. 1 (Jan. 1982), 1-11.

The model formulated and estimated in this paper follows closely that specified in a previous paper (110). Simulations of the U.S. dairy industry under a variety of conditions indicate that milk price variability would be considerably greater in the absence of price supports. Milk production would also be more variable, but significantly less than would milk prices. Summary statistics for the 1955-78 period, however, indicate that, in the absence of pricing programs, milk prices would have varied no more than did prices for corn, wheat, or hogs. A long-term price-production cycle does not appear to be inherent in the dairy industry.

100. \_\_\_\_\_. Stability in the U.S. Dairy Industry Without Government Regulations? Staff Paper No. 37, Dept. Agr. Econ. and Rural Soc., Pennsylvania State Univ., 1980.
101. \_\_\_\_\_. "A Systems Analytic Model for the Dairy Industry," Proceedings of Workshop on Systems Analysis in the Dairy Industry. U.S. Dept. Agr., Econ. Res. Serv., 1973.

102. \_\_\_\_\_, and R.F. Fallert. Policy Simulation Model for the United States Dairy Industry. Bulletin 805, Pennsylvania State Univ., Jan. 1976.

A "systems analytic approach" was used to develop a model of the various subsectors, both by product markets (fluid products, cheese, butter, etc.) and by production regions. This model, based on the theoretical work of Rojko (212), was one of the first detailed models of the dairy industry.

103. Hallberg, M.C., and R.A. King. Pricing of Milk and Dairy Products. A.E. & R.S. No. 150, Pennsylvania Agr. Exp. Sta., June 1980.

104. Hallberg, M.C., and B.J. Smith. Effects of Alternative Pricing Structure and Pooling Methods on the Dairy Industry in the Northeast. A.E. & R.S. No. 120, Dept. of Agr. Econ. and Rural Soc. Pennsylvania State Univ., Oct. 1975.

105. Hallberg, M.C., and others. Impact of Alternative Federal Milk Marketing Order Pricing Policies on the United States Dairy Industry. Bulletin 818, Agr. Exp. Sta., Pennsylvania State Univ., May 1978.

A spatial equilibrium model of the U.S. dairy sector is used to examine the impacts of selected pricing and pooling alternatives on national and regional prices, production, consumption, and gross dairy receipts. Alternatives include a national milk order, regional milk orders, and existing milk orders but with pricing modifications such as different levels of Class I differentials or a flat Class I pricing plan. Results indicate that the U.S. dairy industry in 1975 deviated substantially from equilibrium and it is not likely to approach equilibrium because of a basic assumption in the Federal order system--that there is only one price basing point (the Upper Midwest). Producer receipts and consumer expenditures were higher than the shortrun equilibrium with a national order. On a regional basis, producers in half the regions gained while the other half lost. Altering the fluid differential did not greatly affect the geographic structure of prices or the pattern of interregional shipments.

106. Halvorson, Harlow W. "Response of Milk Production to Price," Journal of Farm Economics, Vol. 40, No. 1 (1958), 111-113.

107. \_\_\_\_\_, and others. Dairy Supply and Price Policies. Arlington, Va.: National Milk Producers Federation, Feb. 1960.

108. Hammond, Jerome W. Regional Milk Supply Analysis. Staff Paper 74-12, Univ. of Minnesota, July 1974.

109. \_\_\_\_\_, S.T. Coulter, and R. Sirny. Nutritional, Technical, and Economic Aspects of Milk Substitutes. Station Bulletin 496-1969, Agr. Exp. Sta., Univ. of Minnesota, 1969.

The longrun economic consequences of filled and imitation milk, supposing that technical and nutritional problems can be overcome, will largely depend on how effectively milk can compete with substitutes in terms of production costs. In the short run, the consequences of these

products will depend on the status of laws forbidding or regulating their manufacture and sale and on price support programs for the dairy industry. Consumer acceptance of the products will be related to their nutritional and technical characteristics and price. If there were no marketing orders but the support program were maintained, production and sale of filled milk would be widespread. This would increase the demand for nonfat dry milk resulting in the price to farmers in high-cost fluid markets declining and the price to farmers in low-cost markets increasing. With Federal order pricing, imitation milk would be more profitable than filled milk to sell. With no dairy regulation, the price of butterfat would fall. If it were close to the price of vegetable fat, filled milk would disappear. The price of fluid milk would have to drop very low to compete, by price, with imitation milk.

110. Hammond, Jerome W., and Truman Graf. "Pricing Milk in Federal Order Markets," American Journal of Agricultural Economics, Vol. 51, No. 5 (Dec. 1969), 1506-10.

The authors discuss the validity of the Minnesota-Wisconsin price series as representative of plant prices in the two States. Their analysis indicates it is a good estimate of the final average reported prices. Reported prices versus what is actually paid to producers was also analysed. Results show that most plants paid for less butterfat than they received from farmers and therefore quoted higher prices than were actually paid. Subsidizing of hauling costs results in reported prices lower than actual prices. Patronage refunds result in reported prices being understated. The authors also look at the relationship between the level of pay prices and characteristics of the firm and the market. They see some correlation but not enough to indicate that the use of competitive pay price series based on average prices paid by all plants would necessarily be inequitable.

111. Harrington, David H., and Ram K. Sahi. "A Quadratic Programming Model of the Canadian Dairy Industry." Paper presented at the Annual Workshop of the Canadian Agricultural Economics Society, Ottawa, Aug. 1974.
112. Harris, Edmond S. Classified Pricing of Milk: Some Theoretical Aspects. TB-1184, U.S. Dept. Agr., Agr. Mktg. Serv., Apr. 1958.

This study discusses the functions and economic consequences of the application of classified pricing plans under varied circumstances and with divergent objectives of pricing policy. It involves a reappraisal of the existing body of economic theory on the subject, and also an extension of that theory to give greater consideration to the consequences of pricing policies over time.

113. \_\_\_\_\_. "Impact of Transportation Changes on Price Structures in City Milk Markets," Journal of Farm Economics, Vol. 49, No. 4 (Nov. 1967), 844-51.
114. Hayenga, Marvin. "Cheese Pricing Systems." NC-177 Working Paper 38, Univ. of Wisconsin, 1979.

115. Heien, Dale. "The Cost of the U.S. Dairy Price Support Program: 1949-1974," The Review of Economics and Statistics, Vol. 59, No. 1 (Feb. 1977), 1-8.
116. Henderson, James Lloyd. The Fluid-Milk Industry. 3rd ed., Westport, Conn.: The AVI Publishing Company, Inc., 1971.
117. Hicks, Clair, and Robert L. Beck. UHT and the Dairy Industry: A Summary. Report No. 21, Univ. of Kentucky Coop. Ext. Serv., July 1979.
118. Hjort, H.W. "U.S. Dairy Policy: Parity, Cost of Production, or Direct Payments?" Remarks presented to the Northeast Dairy Conference, Burlington, Vt., Apr. 1980.
119. Hoepner, Paul. "Optimum Levels of Milk Production Under Marketing Quotas," Journal of Farm Economics, Vol. 46, No. 3 (Aug. 1964), 567.
120. Hsiao, James, and Marvin Kottke. Spatial Equilibrium Analysis of the Dairy Industry in the Northeast Region--An Application of Quadratic Programming. Storrs Agr. Exp. Sta. Bulletin 405, Univ. of Connecticut, July 1968.
121. Hu, Teh-Wei. "Economic and Demographic Determinants of the Demand for Dairy Products--An Econometric Study," Journal of the American Statistical Association, Proceedings Issue, Business and Economic Statistics Section, 1967, 439-46.
122. Hutton, Patricia, and Peter Helmberger. Aggregative Analysis of U.S. Dairy Policy. Bulletin R3191, College of Agr. and Life Sci., Univ. of Wisconsin, Aug. 1982.

This bulletin develops a theoretical model of the U.S. market for milk at the farm level which provides the basis for constructing and estimating an econometric model of milk pricing in the United States. Estimated results show that farm level demand of milk for fluid consumption to be very inelastic and, in fact, close to zero. Short- and longrun elasticities for milk supply and for the farm-level demands for milk are also estimated. Using these estimates, the authors calculated the economic effects of four alternative dairy policy options for 1977. Eliminating classified pricing brought down the blend price slightly (3 percent). Eliminating price supports but keeping classified pricing intact caused a drastic decline in farm-level milk prices in the short run, with a 7- and 9-percent drop in the price of milk in the long run for manufacturing use and fluid use, respectively. Eliminating both classified pricing and the price support program resulted in a 10-percent decline in the blend price. However, the price of milk used in manufactured products stayed roughly the same.

123. Ippolito, R.A., and R.T. Masson. "The Social Cost of Government Regulation of Milk," Journal of Law and Economics, Vol. 21 No. 1 (1978), 33-65.

The authors develop a model of regulated milk markets in the United States focusing on Federal marketing orders. Price and output effects of regulation on regulated and unregulated areas are examined.



Estimates are made of inefficiencies and transfers to dairy farmers inherent in the schemes. They estimate the effect of regulation on the prices of Class I and Class II products and the blend price. The estimates suggest that, on average, regulation enforces a tax on consumers of Class I milk and grants a subsidy to consumers of Class II products. Regulated producers (Grade A) experience an increase in rents while Grade B producers experience a reduction in rents.

124. Jacobson, R.E. Changing Structure of Dairy Farming in the United States: 1940-1979. ESPR-3, Ohio State Univ., Apr. 1980.
125. \_\_\_\_\_. "Economics of Imitation Milk Products," Journal of Dairy Science. Vol. 52, No. 5 (May 1969), 751-55.
- Per capita consumption of milk has been declining over time. Part of the decline in the late sixties can be attributed to substitutes but also to direct price effects (rising milk prices). Some dairy products have shown considerable growth while butter has been largely replaced by margarine. Jacobson cites a study that indicates many consumers are ready and willing to buy imitations. Dairy products will have to be differentiated from imitation products to maintain measurable price premiums.
126. \_\_\_\_\_. One-Class Pricing in Fluid Milk Markets. California Coop. Ext. Service, Dec. 1976.
127. \_\_\_\_\_. "Possibilities for Correcting Inequities in Super-Pool Pricing in Fluid Milk Markets." Paper presented at Dairy and Food Industry Conference, Columbus, Ohio, Feb. 1978.
128. \_\_\_\_\_. "Sources, Limits, and Extent of Cooperative Market Power," Agricultural Cooperatives and the Public Interest. NC-117 Monograph 4, Univ. of Wisconsin, Sept. 1978, 171-86.
129. \_\_\_\_\_, J.W. Hammond, and T.F. Graf. Pricing Grade A Milk Used in Manufactured Dairy Products. Research Bulletin 1105, Ohio Agr. Research and Development Center, Wooster, Dec. 1978.
130. Jacobson, R. E., and D.S. Kaufman. Establishing Class I Milk Prices by Formula. California Coop. Ext. Service, July 1976.
131. Jesse, E.V. Economic Analysis of Alternative Milk Concentration Methods. Staff Report No. AGESS801201, U.S. Dept. Agr., Econ. Stat. Serv., Dec. 1980.

Rapidly increasing energy costs dictate a reappraisal of present methods of transporting fluid milk between surplus and deficit regions. Methods that permit transportation of a concentrated product which can be reconstituted to a whole fluid product near the point of consumption have the potential for reducing energy use and consumer prices. Processing, transportation, and reconstitution costs for five alternative concentration options are estimated and compared with the present method of fluid milk distribution to evaluate economic benefits at varying distances from assembly points to bottlers. Tradeoffs

between transportation and processing costs yield a cost advantage to thermal-evaporated whole milk over a range from about 100 to 900 miles between assembly point and bottler. At a distance of less than 100 miles, delivery of unconcentrated milk is the least expensive method, while butter-powder reconstitution minimizes costs at distances greater than 900 miles.

132. Johnson, D. Gale. "Free Trade in Agricultural Products: Possible Effects on Total Output, Prices, and the International Distribution of Income," Trade, Agriculture, and Development. (Eds.) George S. Tolley and Peter A. Zadrozny. Cambridge, Mass.: Ballinger Publishing Co., 1975.
133. Johnson, Stewart. "Formula Pricing Class I Milk Under Market Orders," Journal of Farm Economics, Vol. 31, No. 1 (Feb. 1949), 428-33.
134. Kelley, Paul, and Dale Knight. "Short Run Elasticities of Supply for Milk," Journal of Farm Economics, Vol. 47, No. 1 (Feb. 1965), 93.
135. Kessel, Reuben. "Economic Effects of Federal Regulation of Milk Markets," Journal of Law and Economics, Vol. 10, (Oct. 1967), 51-78.
136. Kilmer, Richard L., and David E. Hahn. "Effects of Market Share and Anti-merger Policies on the Fluid Milk-Processing Industry," American Journal of Agricultural Economics, Vol. 60, No. 3 (Aug. 1978), 385-392.
137. Kinnucan, Henry W. Dairy Promotion Research at Cornell: What Have We Learned? Staff Paper No. 81-18, Cornell Univ., Sept. 1980.
138. . "The Economics of Advertising Manufactured Dairy Products," Proceedings of a Conference on Increasing Milk and Milk Product Consumption: Issues for the 1980's. Cornell Univ., Mar. 1983.
139. Kloth, Donald W., and Leo V. Blakley. "Optimum Dairy Plant Location with Economies of Size and Market-Share Restrictions," American Journal of Agricultural Economics, Vol. 53, No. 3 (Aug. 1971), 461-66.
140. Kottke, Marvin. "Spatial, Temporal and Product-Use Allocation of Milk in an Imperfectly Competitive Dairy Industry," American Journal of Agricultural Economics, Vol. 52, No. 1 (Feb. 1970), 33-40.
141. Kriesel, Herbert C. "The Dairy Problem and a Suggested Solution," Journal of Farm Economics, Vol. 37, No. 5 (Dec. 1955), 1005-15.
142. Krueger, E. "Update of State Milk Promotion Programs," Dairy Outlook and Situation. DS-393, U.S. Dept. Agr., Econ. Res. Serv., June 1983.
143. Kwoka, John E., Jr., "Pricing Under Federal Milk Market Regulation," Economic Inquiry, Vol. 15, No. 1 (July 1977), 367-84.

Federal milk market regulation sets the wholesale price of most fluid milk in this country. This paper explores the purposes served by price-setting procedures under regulation and their quantitative impact. The institutional and theoretical background is provided and an econometric model of a regulated milk market is estimated. The latter

demonstrates that actual prices are consistent with those which would maximize producer benefit in 1960 and 1970 and that regulation produces quite substantial effects on prices and quantities within markets, on price patterns among markets, and on income distribution and economic efficiency.

144. Ladd, George W. "Federal Milk Marketing Order Provisions: Effects on Producer Prices and Intermarket Price Relationships," American Journal of Agricultural Economics, Vol. 51, No. 3 (Aug. 1969), 625-41.

Different marketing orders contain various combinations of provisions. Cross-section data were used to test the hypothesis that order prices are related to the provisions contained in orders. Most of the variance in prices is explained by two economic variables: distance of order market from Eau Claire, Wis., and Class I utilization ratio. Covariance analysis found no significant changes between years in the effects of order provisions on prices. Many possible combinations of provisions are not used in any order. Many of these combinations would provide unacceptable prices if they were used.

145. \_\_\_\_\_. National, Regional, and State Trends in Milk Production and Utilization, 1948-71. Special Report 73, Iowa Agr. Exp. Sta., Apr. 1974.
146. \_\_\_\_\_, and G.E. Updegraff. Allocation of Milk Among Products to Maximize Gross Income of the Nation's Dairy Farmers Under 1964 Demand Functions. Research Bulletin 567, Iowa Agr. Exp. Sta., 1969.
147. LaFrance, Jeffrey, and Harry deGorter. Regulation in a Dynamic Market: The U.S. Dairy Industry. CUDARE Working Paper 232, Giannini Foundation, Univ. of California, 1982.
148. Lang, M.G., and others. Performance Dimensions for Cooperatives and Proprietary Firms: Perceptions and Research Priorities. Station Bulletin 281, Purdue Agr. Exp. Sta., May 1980.
149. Lasley, F.A., and L.G. Sleight. Balancing Supply with Demand for Fluid Milk Markets--A Cost Comparison. Staff Report, U.S. Dept. Agr., Econ. Stat. Coop. Serv., Oct. 1979.
150. Leathers, Howard D. Milk Price Variability, Uncertainty and Government Price Stabilization Programs. U.S. Dept. Agr., Econ. Res. Serv., in process, 1984.
151. Leathers, Howard, and Jerome W. Hammond. An Evaluation of Producer Price Measures for Use in Federal Order Pricing. Economic Report ER80-4, Univ. of Minnesota, Oct. 1980.
152. Ling, K. Charles. Pricing Plans for Managing Seasonal Inventories by Dairy Cooperatives. ACS Research Report 22, U.S. Dept. Agr., Agr. Coop. Serv., Aug. 1982.
153. Lipson, Frank, and Clint Batterton. A Report on Agricultural Cooperatives. Federal Trade Commission, Bureau of Competition, Sept. 1975.

154. Lough, Harold W., Cheese Pricing, AER 462, U.S. Dept. Agr., Econ. Res. Serv., Dec. 1980.
155. Louwes, S.L., J.C.G. Boot, and S. Wage. "A Q.P. Approach to the Problem of Optimal Use of Milk in the Netherlands," Journal of Farm Economics, Vol. 45, No. 2 (May 1963), 309-17.
156. Lu, W.F., and R.G. Marshall. A Demand Analysis for Fluid Milk in Ontario. Publication AE/73/11, Ontario Agr. College, Univ. of Guelph, Oct. 1973.
157. Luke, Alan, and James Gruebele. A Simplified System for Serving Fluid Milk Markets. Extension Bulletin 0759, Washington State Univ., Feb. 1981.
158. MacAvoy, Paul W. (ed.) Federal Milk Marketing Orders and Price Supports. Washington, D.C.: American Enterprise Institute, 1977.

An antitrust task force set up by President Ford studied dairy regulation since it is based on significant exceptions to the antitrust laws. This book contains a condensed version of the report that was ultimately published. This study is a review of all aspects of dairy regulation. The analysis is based upon an evaluation of the historical basis of the enabling legislation, the development of the dairy industry, and the mechanisms of marketing orders and the price support program. The study provides an evaluative process for determining the social costs and benefits of the entire system of controls, and it produces a rough estimate of the total costs and benefits of the system.

159. Manchester, A.C. Dairy Price Policy: Setting, Problems, Alternatives. AER-402, U.S. Dept. Agr., Econ. Stat. Coop. Serv., Apr. 1978.
160. \_\_\_\_\_. Issues in Milk Pricing and Marketing, AER-393, U.S. Dept. Agr., Econ. Res. Serv., Dec. 1977.
161. \_\_\_\_\_. Market Structure, Institutions, and Performance in the Fluid Milk Industry. AER-248, U.S. Dept. Agr., Econ. Res. Serv., Jan. 1974.
162. \_\_\_\_\_. "Milk Prices and the Public Interest: Discussion," American Journal of Agricultural Economics, Vol. 62, No. 2 (May 1980), 300-02.
163. \_\_\_\_\_. Milk Pricing. AER-315, U.S. Dept. Agr., Econ. Res. Serv., Nov. 1975.
164. \_\_\_\_\_. Pricing Milk and Dairy Products--Principles, Practices, and Problems. AER-207, U.S. Dept. Agr., Econ. Res. Serv., June 1971.
165. \_\_\_\_\_. The Status of Marketing Cooperatives Under Antitrust Law. AER-673, U.S. Dept. Agr., Econ. Res. Serv., Feb. 1982.

Review of the development and current state of antitrust law regarding cooperatives shows that interpretations of legal activities for farmer marketing cooperatives have varied widely. The author develops

guidelines for a policy defining the scope of the Capper-Volstead exemption and principles to follow in determining cases of undue price enhancement.

166. \_\_\_\_\_. The Structure of Fluid Milk Markets: Two Decades of Change. AER-137, U.S. Dept. Agr., Econ. Res. Serv., July 1968.
167. March, Robert W. Memo to All Market Administrators on Cooperatives in Federal Milk Order Markets. U.S. Dept. Agr., Agr. Mktg. Serv., Aug. 19, 1975.
168. Masson, Alison, R.T. Masson, and B.C. Harris. "Cooperatives and Marketing Orders," N.C. Project 117, Monograph 4, Univ. of Wisconsin Sept. 1978, 187-218.
169. Masson, Robert, and Philip Eisenstat. "Goals and Results of Federal Milk Regulations: A Reevaluation," Journal of the Northeastern Agricultural Economics Council, Vol. 6, No. 2, (Oct. 1977), 193-214.

This paper discusses the stated goals of marketing orders and whether continued regulation is needed. The authors find that the level of Class I prices is above that needed for adequate supplies or for orderly marketing. In addition, income transfers from consumers of dairy products to producers can no longer be justified as the income levels of the two groups are fairly close. They conclude that the marketing environment has changed significantly since the 1930's and that classified pricing is no longer needed.
170. \_\_\_\_\_. "The Pricing Policies and Goals of Federal Milk Order Regulations: Time for Reevaluation," South Dakota Law Review, Vol. 23, (Summer 1978), 662-697.
171. \_\_\_\_\_. "Regulation as a Source of Monopoly: A Case Study in Milk." Paper presented at Atlantic Economics Society Annual Meeting, Washington, D.C., Sept. 1975.
172. \_\_\_\_\_. "Welfare Impacts of Milk Orders and the Anti-Trust Immunities for Cooperatives," American Journal of Agricultural Economics, Vol. 62, No. 2 (May 1980), 270-78.
173. Masson, Robert, Roger Fones, and Janet C. Hall. Response to the USDA Comments on the Department of Justice Report on Milk Marketing, U.S. Dept. of Justice, Oct. 1978.
174. Mathis, A.G. The Probable Impact of Milk Concentrates on the Fluid Milk Market. MRR-208, Dept. Agr., Feb. 1958.
175. \_\_\_\_\_, D.E. Friedley, and S.G. Levine. Government's Role in Pricing Fluid Milk in the United States. AER-229, U.S. Dept. Agr., Econ. Res. Serv., July 1972.
176. Matulich, Scott C., "Effectiveness in Large-Scale Dairying: Incentives for Future Structural Change," American Journal of Agricultural Economics, Vol. 60, No. 4 (Nov. 1978), 642-47.

177. Mayer, Leo V. "The Purpose, Function, and Policy Behind the Federal Government's Role in Milk Marketing: 1929-1979," Proceedings: Seminar on Examining Dairy Policy Alternatives. Washington, D.C., Sept. 1979.
178. McCalla, A.F. "The Demand for Filled Milk," Western Milk and Ice Cream News, (Apr. 1971), 10-11.
179. McDowell, F.H., and M.C. Conner. Milk Movement and Plant Location for Minimizing Milk Marketing Costs in the Southeast. Bulletin 82-3, Virginia Agr. Exp. Sta., Aug. 1982.
180. Metzger, Homer, and Fred Webster. The Economic Impact of Expanding the Federal Milk Order into Northern New England. Technical Bulletin 79, Maine Agr. Exp. Sta., May 1976.
181. Milk Industry Foundation and International Association of Ice Cream Manufacturers, Special Dairy Policy Advisory Committee. Examining Dairy Policy Alternatives. Washington, D.C., Sept. 1979.
182. Miller, R.R. "Developments and Trends in the Casein Market," Dairy Situation. DS-334, U.S. Dept. Agr., Econ. Res. Serv., Mar. 1974.
183. Milligan, R.A. An Economic Analysis of the Factors Affecting the California Dairy Industry. Research Report 325, Giannini Foundation, Univ. of California, 1978.
184. Moede, H.H. Out-of-Market Bulk Milk Shipment Charges for Selected Federal Order Markets. MRR-959, U.S. Dept. Agr., Econ. Res. Serv., May 1972.
185. Mueller, Willard F. Federal Milk Marketing Orders. NC-117 Working Paper 28, Univ. of Wisconsin, Feb. 1979.
186. Nelson, A.G., and others. The Economics of Milk Production in Selected Pacific Northwest Milksheds. Oregon Agr. Exp. Sta., June 1979.
187. Novakovic, Andrew. An Analysis of the Impact of Deregulating the Pricing of Reconstituted Milk Under Federal Milk Marketing Orders. A.E. Res. 82-6, Cornell Agr. Exp. Sta., May 1982.
188. \_\_\_\_\_. An Overview of Dairy Policy Options. Agr. Economic Staff Paper (82-3), Cornell Univ., Mar. 1982.
189. \_\_\_\_\_. A User's Introduction to the Dairy Market Policy Simulator (DAMPS). A.E. Res. 81-19, Cornell Univ., Dept. Agr. Econ., Sept. 1981.
190. \_\_\_\_\_, and Richard Aplin. Some Findings on the Comparative Cost of Reconstituting Beverage Milk Products: Reconstitution vs. Fresh Milk Processing, A.E. Res. 81-15, Cornell Univ. Agr. Exp. Sta., Aug. 1981.
191. Novakovic, Andrew, and E. Babb. An Analysis of U.S. Dairy Price Supports Based on Parity Versus Cost of Production. Staff Paper 79-6, Cornell Univ., Dept. Agr. Econ., Apr. 1979.



192. . An Economic Analysis of the U.S. Dairy Price Support Program and Alternative Policies. A.E. Res. 79-27, Cornell Univ. Agr. Exp. Sta., Dec. 1979.
193. Novakovic, Andrew, and Robert Story. Federal Milk Marketing Order Provisions Regarding Reconstituted Milk: The Issues and Some Possible Consequences of Change. A.E. Ext. 80-1, Cornell Univ. Agr. Ext. Sta., Jan. 1980.
194. Novakovic, Andrew, and Robert L. Thompson, "The Impact of Imports of Manufactured Milk Products on the U.S. Dairy Industry," American Journal of Agricultural Economics, Vol. 59, No. 3 (Aug. 1977), 507-19.
195. Novakovic, Andrew, and others. An Economic and Mathematical Description of the Dairy Market Policy Simulator, A.E. Res. 80-21, Cornell Univ. Agr. Exp. Sta., Sept. 1980.
196. Paris, Q., and others. "Note on Milk Production Functions," American Journal of Agricultural Economics, Vol. 52, No. 4 (Nov. 1970), 594.
197. Parker, Russell W. Economic Report on the Dairy Industry. Staff Report, Federal Trade Commission, Nov. 1974.
198. Perkins, B.B., J.H. Clark, and R.G. Marshall. Canadian Dairy Policies. Ottawa: The Queens Printer, 1969.
199. Phillips, M.J., and E.M. Babb. "Effectiveness of a Cooperative Class I Base Plan in Stabilizing Milk Production," Dairy Marketing Information. Purdue Agr. Ext. Serv., Sept. 1972.
200. Pierce, C.W. "Pricing Class I Milk Under Federal Orders," Journal of Farm Economics, Vol. 31, No. 1 (Feb. 1949), 434-47.
201. Prato, A.A., "Milk Demand, Supply and Price Relationships, 1950-1968," American Journal of Agricultural Economics, Vol. 55, No. 2 (1973), 217-22.
202. Purcell, Joseph C. Prospective Demand for Milk and Milk Products in the South, Bulletin 88, Georgia Agr. Exp. Sta., Oct. 1969.
203. Raunikaar, Robert, J.C. Purcell, and J.C. Elrod. Spatial and Temporal Aspects of the Demand for Food in the United States: I. Fluid Milk, Bulletin 61, Georgia Agr. Exp. Sta., June 1969.
204. Reed, A.J. Quarterly Simulation Model of the U.S. Dairy Industry--Equilibrium at the Farm. Staff Report AGES830203, U.S. Dept. Agr., Econ. Res. Serv., Feb. 1983.

A model of the dairy industry is developed to simulate changes in the industry due to changes in government policies and general economic conditions. The model is used to estimate the impact of lower price supports. In the late 1970's, the support price was mandated to be at least 80 percent of parity. At 75 percent of parity, milk production was estimated to average one half million pounds lower per year between 1979 and 1981 with CCC purchase costs lowered almost \$2 million per year.

205. Reyes, A.A., and others. "Multistage Optimization Model for Dairy Production," Journal of Dairy Science, Vol. 64, No. 2 (Oct. 1981), 2003-16.
206. Riley, John. A Reactive Programming Model for the Fluid Milk Industry, Research Report P-697, Oklahoma State Univ., July 1974.
207. \_\_\_\_\_, and L.V. Blakley. Equilibrium Impact of Alternative Pricing Policies and Structural Changes in the Fluid Milk Industry, 1972-76. Research Report P-733, Oklahoma Agr. Exp. Sta., May 1976.
208. \_\_\_\_\_. "Impact of Alternative Class I Pricing Systems on Fluid Milk Prices," American Journal of Agricultural Economics, Vol. 57, No. 1 (Feb. 1975), 67-73.
209. Roberts, Tanya. "Rethinking Reconstituted Milk Regulations," National Food Review, Spring 1980, 22.

The history of regulations that protect fresh drinking milk markets from close substitutes is reviewed. A shortrun analysis of possible price changes in pricing reconstituted milk was made using two approaches: 1) an ingredient cost approach and 2) a farm price + processing + storage + transportation. Costs were also estimated for different product compositions (percent butterfat and percent solids-not-fat) for reconstituted milk. In the short run, the unregulated cost of producing reconstituted milk was estimated to be \$.07 to \$.14 a gallon below the U.S. average fresh drinking milk in 1979. Savings varied regionally: negligible in the upper Midwest and greatest in the southeastern and eastern markets.

210. \_\_\_\_\_. Review of Economic Literature on Milk Regulation. Washington, D.C., Public Interest Economics Center, Dec. 1975.
211. Robinson, T.H., and E.M. Babb. Forecasts of U.S. Dairy Product Consumption, 1977-1981. SB-186, Purdue Agr. Exp. Sta., Mar. 1978.
212. Rojko, A.D. The Demand and Price Structure for Dairy Products. TB-1168. U.S. Dept. Agr., 1957.
213. Rourke, John P. "Fluid Milk Processor Structure in Federal Order Markets," Federal Milk Order Statistics. FMOS-267, U.S. Dept. Agr., Agr. Mktg. Serv., May 1982.
214. Ruane, J.J., and M.C. Hallberg. Spatial Equilibrium Analysis for Fluid and Manufacturing Milk in the United States, 1967. Agr. Exp. Sta. Bulletin 783. Pennsylvania State Univ., Aug. 1972.
215. Russell, Sargent. "The Seasonal Pricing Plan for Milk," Journal of Farm Economics, Vol. 49, No. 3 (Aug. 1967), 643-55.
216. Sahi, Ram K., and David H. Harrington. "A Policy Analysis Model for the Canadian Dairy Industry." Contributed paper at the American Agricultural Economics Association annual meeting, Columbus, Ohio, Aug. 1975.
217. Salathe, Larry, William D. Dobson, and Gustof Peterson. "Analysis of the Impact of Alternative U.S. Dairy Import Policies," American Journal of Agricultural Economics, Vol. 59, No. 3 (Aug. 1977), 496-506.

This study examines the economic effects on the Wisconsin dairy industry of increasing dairy imports. The authors use a simulation model to measure the impacts on farm milk prices, production, wholesale and retail prices, and the number of farms and labor used in dairy farming. Results indicate that, initially, an open market policy would substantially depress the domestic dairy industry. After 5 to 7 years of high imports, farm milk prices would recover to levels near those that would exist under present dairy import programs. However, the price recovery would occur partly because substantial numbers of Wisconsin dairy farmers would be forced out of business.

218. Salathe, Larry, J. Michael Price, and Kenneth E. Gadson. "The Food and Agricultural Policy Simulator: The Dairy Sector Submodel," Agricultural Economics Research, Vol. 34, No. 3 (July 1982), 1-14.
219. Schnittker, J., and others. Examining Dairy Policy Alternatives. Washington, D.C.: Milk Industry Foundation, Sept. 1979.
220. Schwart, Robert B., and Robert E. Jacobson. "Factors Affecting Market Performance with an Emphasis on Milk Resale and Trade Price Regulations in the North Central States," North Central Journal of Agricultural Economics, Vol. 4, No. 2 (July 1982), 109-18.

Policymakers have debated whether State price and trade regulations affect market performance. Marketing margins and plant productivity, two measures of performance, were estimated and found to be a function of these types of regulations. Significant regulatory variables were regulatory budgets of States, the number of preliminary investigations, and the number of agency employees. State dairy price and trade practice regulations were found to have a positive impact on market performance.

221. Smith, Art, and Ronald D. Knutson. Economic Formula Pricing of Milk. Research Report MRC 79-1, Texas Agr. Marketing Research and Development Center, June 1979.
222. Smith, B.J., H.B. Metzger, and F.A. Lasley. Fluid Milk Reserves and Production-Consumption Balances in the Northeastern United States. Agr. Exp. Sta. Bulletin 819, Pennsylvania State Univ., 1978.
223. Song, Dae Hee, and M.C. Hallberg. "Measuring Producers' Advantage from Classified Pricing of Milk," American Journal of Agricultural Economics, Vol. 64, No. 1 (Feb. 1982), 1-7.

Given the amount of milk available to the marketing system, have government regulations tended to favor producers or consumers? The authors estimate a set of prices that would have maximized milk producers' gross income and a set that would have maximized consumer welfare. Results show that the difference between the weighted average price for producer revenue maximization and that for consumer welfare maximization is relatively small (less than \$1.00/hundredweight) and has gotten progressively smaller between 1960 and 1979. Also, the weighted average price, which in 1960 was slightly closer to the price which would have maximized producer welfare, has over the 20-year period moved progressively closer to that price which

would have maximized consumer welfare. Producer revenue appears to be only 1.5-2 percent above what it would be if milk prices were set to maximize consumer welfare. This implies the consumer-to-producer income transfer may well be a small price to pay for the price and marketing stability that existing dairy programs impart.

224. Spencer, Leland. "Impact of Marketing Agreements and Orders on the Marketing of Milk," Journal of Farm Economics, Vol. 32, No. 4 (Nov. 1950), 992-1005.
225. Stitts, D.G., and J.W. Hammond. A Method of Estimating Normative Prices and Supplies in Federal Order Markets. Technical Bulletin 278, Agr. Exp. Sta., Univ. of Minnesota, 1970.
226. Story, Robert, and Robert Wellington. The Consolidation and Expansion of Federal Milk Orders in the Northeast: The Impact on Blend Prices. AER-82-1, Cornell Univ., Agr. Exp. Sta., Jan. 1981.
227. Strain, Robert J. The Associated Reserve Standby Pool Cooperative. Cincinnati, Ohio: Associated Reserve Standby Pool Cooperative, Mar. 1973.
228. Thraen, Cameron S. "Rational Expectations and Agricultural Policy: An Econometric Application to the U.S. Dairy Economy." Presented at the annual meeting of the American Agricultural Economics Association, Utah State Univ., Aug. 1982.
229. \_\_\_\_\_, J. Hammond, and B.M. Buxton. An Analysis of Household Consumption of Dairy Products. Agr. Exp. Sta. Bulletin 515, Univ. of Minnesota, 1977.
230. Thompson, S.R. "Economic Evaluation of Milk Advertising," Journal of Dairy Science, Vol. 62, No. 6 (June 1979), 1026-31.
231. \_\_\_\_\_. "Sales Response to Generic Promotion Efforts and Some Implications of Milk Advertising on Economic Surplus," Journal of the Northeastern Agricultural Economics Council, Vol. 3, No. 2 (Oct. 1974), 78-90.
232. \_\_\_\_\_, and D.A. Eiler. "Determinants of Milk Advertising Effectiveness," American Journal of Agricultural Economics, Vol. 59, No.2 (May 1977), 330-35.

An analysis of the net returns to dairy farmers from generic fluid milk advertising is made in terms of the ability of advertising to increase the blend price of milk in excess of the cost of advertising. The evaluation of the economic effectiveness of generic fluid milk advertising programs extends beyond the measurement of the direct sales response to advertising. Specifically, the price differential between Class I and Class II and the Class I utilization rate are extremely important factors influencing the effectiveness of generic milk advertising programs, while the impact of the price elasticity of supply is relatively minor.

233. \_\_\_\_\_. "Producer Returns from Increased Milk Advertising," American Journal of Agricultural Economics, Vol. 57, No. 3 (Aug. 1975), 505-08.
234. Tinley, J.M. "Lessons from Public Control in Milk Marketing," Journal of Farm Economics, Vol. 20, No. 4 (Nov. 1938), 807-22.
235. Tucker, George C., William J. Monroe, and James B. Roof. Marketing Operations of Dairy Cooperatives. Research Report 38, U.S. Dept. Agr., Farm. Coop. Serv., June 1977.
236. U.S. Congress. Alternatives to Reduce Dairy Surpluses. CED-80-88, Report Prepared by the Comptroller General, July 1980.
237. U.S. Congress, Senate Committee on Agriculture, Nutrition, and Forestry. Costs and Returns of Producing Milk in the United States, 1979, 1980, and Preliminary 1981. 97th Congress. Prepared by U.S. Dept. Agr., Econ. Res. Serv., July 1982.
238. U.S. Congress. "The Flanigan Report on Agricultural Trade Policy," Congressional Record, No. 58, (Apr. 12, 1972), S7201-S7214.
239. U.S. Congress, National Commission on Food Marketing. Organization and Competition in the Dairy Industry. Technical Study No. 3, 89th Congress, June 1966.
240. U.S. Congress. "A Study of Alternative Methods of Controlling Farm Milk Production and Supporting Prices to Farmers on Milk and Butterfat." House Document No. 57, 84th Congress, 1955.
241. U.S. Congress. U.S. Import Restrictions: Alternatives to Present Dairy Programs. Report prepared by the Comptroller General, Dec. 8, 1976.
242. U. S. Department of Agriculture, Agricultural Marketing Service. Questions and Answers on Federal Milk Marketing Orders. AMS-559, Mar. 1975.
243. \_\_\_\_\_. Summary of Major Provisions in Federal Milk Marketing Orders. July 1982.
244. \_\_\_\_\_. Agricultural Stabilization and Conservation Service. Dairy Price Supports and Related Programs, 1949-1968. AER-165, 1969.
245. \_\_\_\_\_. Capper-Volstead Committee. "The Question of Undue Price Enhancement by Milk Cooperatives." Dec. 1976.
246. \_\_\_\_\_. Economic Research Service. Cost of Whey-Soy-Drink Mix for Human Consumption. MRR-1021, May 1974.
247. \_\_\_\_\_. Homemaker's Opinions About Dairy Products and Imitations: A Nationwide Survey. MRR-995, May 1973.
248. \_\_\_\_\_. The Impact of Dairy Imports on the U.S. Dairy Industry. AER-278, Jan. 1975.

Three trade alternatives are examined for the U.S. dairy industry: (1) a continuation of the existing dairy price support system and import quotas, (2) free trade in dairy products for all countries, and (3) an open U.S. market with no domestic price supports or import quotas for dairy products. The estimated impact of these policies is shown on: levels of imports into the United States, U.S. milk production, consumption, prices, net cash income, and number and size of dairy farms and processing plants. New Zealand and Australia are the major exporting areas that could profitably ship dairy products to the United States without export subsidies, but the potential increase in the supply of dairy products from these areas is limited because of the small production base they are working from. Opening U.S. markets would result in substantial declines in producer income, sharply curbing domestic milk production. It is likely that those dairy farmers who would be able to survive depressed prices for 2 to 3 years would eventually find returns back at levels about as high as those which might exist if quotas were continued.

249. \_\_\_\_\_ . Staff Report on Casein. Apr. 1977.
250. \_\_\_\_\_ . Economics and Statistics Service. U.S. Casein and Lactalbumin Imports: An Economic and Policy Perspective. ESS Staff Report No. AGESS810521, June 1981.

This study examines the economic implications of restricting the importation of casein and lactalbumin, dairy proteins used in various food, feed, and industrial products. Under existing legislation and trade agreements, the most extreme restrictions that may be imposed are a 50-percent quota or a 50-percent ad valorem tariff. If either of these were imposed, users of casein would shift to soy-based protein and other ingredients wherever possible, although product quality could suffer. Some casein use would be replaced by skim milk solids, but not enough to significantly affect CCC purchases under the dairy price support program. Import restrictions would increase the cost of producing goods containing casein and thus raise prices to consumers.

251. \_\_\_\_\_ . Farmer Cooperative Service. Cooperative Bargaining Developments in the Dairy Industry, 1960-1970, with Emphasis on the Central United States. FCS Research Report No. 19, Aug. 1971.
252. \_\_\_\_\_ . Cooperative Growth: Trends, Comparisons, Strategy. FCS-87, 1973.
253. \_\_\_\_\_ . Legal Phases of Farmer Cooperatives, Part III, Antitrust Laws, Info. 70, Dec. 1970.
254. \_\_\_\_\_ , Federal Milk Order Study Committee. The Federal Milk Marketing Order Program. Oct. 1952.

This study looks at pricing policies, movement of milk and dairy products, and the administration of Federal marketing orders. The main issue addressed is compensatory payments and down allocation, provisions in marketing orders which affect the movement of milk between order areas. There are two statements on the issue. One statement sets forth the analysis supporting the inclusion of the present order provisions

regarding compensatory payments and plant classification; the other sets forth the analysis against such provisions in Federal orders.

255. \_\_\_\_\_, Interagency Task Force. Price Impacts of Federal Market Order Programs. Special Report 12, Jan. 1975.

The task force examined Federal marketing orders to determine what inflationary impacts this program has had and may have. It concludes that marketing orders have had an undergirding effect on cooperative bargaining power in obtaining over-order prices. However, the market power of cooperatives is strong enough in most markets to maintain Class I prices above the Federal order minimums in the short run, even if the minimums were reduced. The task force concludes that prices

were raised only modestly, and that the program does increase stability. On balance, this was not considered inflationary.

256. \_\_\_\_\_, The Milk Pricing Advisory Committee. Milk Pricing Policy and Procedures, Part I. Mar. 1972.

This study describes the market conditions that indicate there is a need for change in pricing procedures in Federal orders and price supports. The changing market conditions are the disappearance of manufacturing grade milk which is the basis for milk pricing and the changing structure and resulting market power of cooperatives.

257. \_\_\_\_\_. Milk Pricing Policy and Procedures, Alternative Pricing Procedures, Part II, Mar. 1973.

Part II summarizes the committee's analysis of alternative procedures and makes specific recommendations for changes in pricing procedures. Three alternative pricing procedures, economic formulas, product formulas, and hearings, are evaluated in terms of their ability to maintain a supply-demand balance, stability, and producer returns. The committee concluded that product price formulas (estimated value of milk used in manufactured products) offer the greatest potential for pricing guidelines.

258. \_\_\_\_\_, Federal Milk Order Study Committee. Report to the Secretary of Agriculture by the Federal Milk Order Study Committee. Dec. 1962.

259. U.S. Department of Justice, Task Group on Antitrust Immunities. Milk Marketing. Jan. 1977.

260. U.S. International Trade Commission. Casein and Its Impact on the Domestic Dairy Industry. USITC Publication 1025, Dec. 1979.

This report provides background on the casein issue including sources of supply and demand and a history of casein imports. The report gives estimates of U.S. demand and supply trends and discusses the relationship of casein imports to various forms of domestic dairy production and demand. About one-fourth of casein is for industrial and medical uses for which nonfat dry milk is not a substitute. Because of the large price difference between casein and nonfat dry milk in the

United States and certain structural differences, nonfat dry milk would not be substituted for all casein use if casein imports were to be restricted. Some products might not be made, or might be made with vegetable proteins, and the demand for products now made with higher cost nonfat dry milk would decline, resulting in less production.

261. Vertrees, J.G., and P.M. Emerson. Consequences of Dairy Price Support Policy. Congressional Budget Office, Mar. 1979.

The relationships between the support price, farm receipts, consumer expenditures, and taxpayer costs are examined. Tradeoffs among dairy farmers, consumers, and taxpayers are examined under four alternative levels of price support. Estimates were made using the Hallberg-Fallert Policy Simulation Model (see 102). Increasing the support level 5 percent (in the range of 75 and 90 percent of parity) increases farm receipts \$1 billion: \$0.7 billion in consumer expenditures and \$0.3 billion in increased CCC purchases.

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263. Walker, Scott A. "Pricing Milk to Farmers at Butter-Nonfat Dry Milk Plants," Agricultural Economics Research, Vol. 5, No. 4 (Oct. 1953), 85-87.
264. Welden, William C. "Formula Pricing of Class I Milk Under Market Orders," Journal of Farm Economics, Vol. 31, No. 1 (Feb. 1949), 420-27.
265. Whipple, Glen D. "An Analysis of Reconstituted Fluid Milk Pricing Policy," American Journal of Agricultural Economics, Vol. 65, No. 2 (May 1983), 214-24.
266. \_\_\_\_\_. The Potential Price Relationships Between Fresh Fluid and Reconstituted Fluid Milk in the Southeast and South Central U.S. Milk Markets. Research Report No. 82-01, Univ. of Tennessee Agr. Exp. Sta., Jan. 1982.
267. Whitaker, Morris D. "Component Pricing of Milk: A More Equitable Way," Western Journal of Agricultural Economics, Vol. 3, No. 2 (Dec. 1978), 121-30.
268. Williams, S.W., and others. Organization and Competition in the Midwest Dairy Industries. Iowa State University Press, 1970.
269. Wilson, Robert T., and Russell G. Thompson. "Demand, Supply, and Price Relationships for the Dairy Sector, Post World War II Period," Journal of Farm Economics, Vol. 49, No. 2 (May 1967), 360-71.
270. Wipf, L., and J.P. Houck. Milk Supply Response in the United States--An Aggregative Analysis. AER-532. Univ. of Minnesota, July 1967.



271. Zellner, J., and C. Carman. "Cheese Donations and their Effect on Commercial Disappearance " Dairy Outlook and Situation. DS-393, U.S. Dept. Agr., Econ. Res. Serv., June 1983.
272. Zepp, Glenn, and Robert McAlexander. "Predicting Aggregate Milk Production: An Empirical Study," American Journal of Agricultural Economics, Vol. 51, No. 3 (Aug. 1969), 642.

