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Introducing: Bus Statistics

The Table of Contents and the Sources and References list of the January 1996 report *Bus Statistics* follow. I wrote the report because I perceived a nationwide information gap, and misleading information in some of the publications in existence. The latter include: Federal publications by:

- (1) the Bureau of Transportation Statistics, U.S. Department of Transportation; and
- (2) Bureau of the Census of the Department of Commerce.

The summary text of the report consists of roughly 132 81/2 by 11" pages and there are about 288 additional pages of appendices and sources and references. Copies of the report are available in both printed and electronic forms.

A number of the sources used in the report are relatively old, but new data is available, both from the U.S. Department of Transportation and elsewhere:

(A) The U.S. Department of Transportation published the results of a number of surveys relevant to bus statistics subsequent my writing the report. These include:

- (1) the *1995 Natiowide Personal Transportation Survey* (the 1990 NPTS was used in developing the report—particularly Chapter I) ;
- (2) *1995 American Travel Survey*,
- (3) 1994, 1995, 1996, and 1997 *Fatal Accident Reporting System* surveys (several annual surveys including 1994 were used) ;
- (4) the same was roughly true of the General Estimates Surveys (GES);
- (5) several later versions of the Federal Highway Administration *Motor Carrier Management Information System* files have been developed (a 1994 file was used).
- (6) several later versions of the Federal Transit Administration's *National Transit Data Base* have become available (1992 and 1993 reports were used);
- (7) more recent annual reports of the *Class I Motor Carriers of Passenger* statistics (data through 1994 used).

(B) Other Federal sources include:

- (1) *1992 Census of Transportation, Communications and Utilities* (only the first two of four volumes of the 1992 survey were available, and the 1997 version when it becomes available);
- (2) General Services Administration, *Federal Motor Vehicle Fleet Report Statistics* (data through 1993 were used);
- (3) Bureau of Labor Statistics employment, *Census of Fatal Injuries* (all years that are available); and
- (4) U.S. Department of Education, *Government Student Transportation Fiscal Statistics*.

(C) Commercial sources that have more recent data include:

- (1) *School Bus Fleet*, by Bobit Publications;
- (2) the *Bus Industry Directory*, Friendship publications; and
- (3) Russell's Official Motor Coach Guide.
- (4) businessUSA, CD-ROM, 1998 (the last version used was 1996)

Bus Statistics

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References and Sources

1. *Employment and Wages, Annual Averages*, Bureau of Labor Statistics, U.S. Department of Labor.
2. *Statistical Abstract of the United States* ____, published annually by Economics and Statistics Administration, Bureau of the Census, U.S. Department of Commerce.
3. *School Bus Fleet*, multiple magazine issues per year published by the Bobit Publishing Company, 2512 Artesia Boulevard, Redondo Beach, CA 90278, phone (310) 376-8788. The January issue is a Fact Book Issue. It includes a number of different school bus statistics.
4. *Highway Statistics* ____, published annually by the Federal Highway Administration, U.S. Department of Transportation, 400 7th St. S.W., Washington D.C. 20590.
5. ____ *Bus Industry Directory*, published annually by Friendship Publications, Inc., P.O. Box 1472, Spokane, WA 99210-1472,
6. Dun & Bradstreet Information Services, continuously updated computerized files on businesses, Dun & Bradstreet Corporation, 3 Sylvan Way, Parsippany, NJ 07054-3896, phone 800-524-0958.
7. *The Official Bus Guide*, published periodically during the year by Russells Guides, Inc., P.O. Box 278, 834 third Ave. S.E. , Cedar Rapids, Iowa 52406, phone (319) 364-6138.
8. ICC __, *Interstate Commerce Commission Annual Reports*, and annual *Class I Motor Carrier of Passenger* forms filed with the ICC.
9. Section 15, reports and computer files, assembled and distributed by the Audit Review and Analysis Division, Office of Capital and Formula Assistance, Federal Transit Administration, U.S. Department of Transportation, 400 seventh St. S.W., Washington, D.C. 20590.
10. American Bus Association, 1990 & 1991 Confidential Survey of Intercity Bus Operations, unpublished report of a survey of the members, assembled by EXP Associates, Inc. February 1993. American Bus Association, 1100 NY Ave. N.W. , Washington, D.C. 20005, phone (202) 842 1645.
11. ____ *Transit Fact Book*, published annually by the Research & Statistics Division, Technical Services Department, American Public Transit Association, 1201 NY Ave. N.W., Washington, DC 20005, phone (202) 898 4000. The statistics include and supplement those included in Reference 9 above.
12. *National Transportation Statistics*, published annually by the Center for Transportation Information, Volpe National Transportation Systems Center, Cambridge, MA; Research and Special Programs Administration and sponsored by the Bureau of Transportation Statistics, U.S. Department of Transportation, available from the Superintendent of Documents.
13. B. Weiers, M. Rossetti; *Transit Bus Manufacturer Profiles*, Volpe National Transportation Systems Center, Cambridge MA, for the Office of Bus and Paratransit Systems, Office of Technical

Assistance, Federal Transit Administration, U.S. Department of Transportation; March 1992.

14. B. Weiers, M. Rossetti; *Entry and Competition in the United States Transit Bus Manufacturing Industry*, Volpe National Transportation Systems Center, Cambridge MA, for the Office of Bus and Paratransit Systems, Office of Technical Assistance, Federal Transit Administration, U.S. Department of Transportation; March 1992.

15. *To Assure the Free Appropriate Public Education of all Children With Disabilities*, the 15th annual report to Congress on the implementation of the "Individuals with Disabilities Education Act, Division of Innovation and Development, Office of Special Education Programs, U.S. Office of Special Education and Rehabilitative Services, U.S. Department of Education, 1993.

16. *Nationwide Personal Transportation Survey*, the survey is conducted and the results published periodically (five to seven years), typically in several volumes. It is sponsored by the Office of Highway Information Management, Federal Highway Administration, U.S. Department of Transportation.

17. *STN, School Transportation News*. The 1994 *Buyers Guide & Telephone Directory*, published in September had statistics on the number of private school buses. Individual issues have articles on a broad variety of school bus topics. The editor is William E. Paul, Inc., 700 Torrance Blvd., Suite C; Redondo Beach, CA 90277; phone (310) 792-2226.

18. Edie McArthur, *National Center of Education Statistics*, U.S. Department of Education 1/17/1994 fax transmission; publication not stated, but page titled "Elementary and Secondary: Private Schools", "Table 63---Private elementary and secondary schools, enrollment, teachers, and high school graduates, by State, Fall 1991". Includes Special Education, vocational/technical, and alternative schools. Excludes prekindergarten enrollment.

19. *Passenger Bus and Urban Transit Statistics 1990*, by the Surface and Marine Transport Section, Statistics Canada, Ottawa Canada (Catalogue # 53-215).

20. W. Vance Grant, 10/18/1994 fax transmission *Education Information Branch, Office of Educational Research and Improvement, U.S. Department of Education*; source document not identified; page titled "Elementary and Secondary: Enrollment", "Table 41---Enrollment in public elementary and secondary schools, by grade and state: Fall 1992".

21. *Highway Safety Program Guideline #17, Pupil Transportation Safety*; National Highway Traffic Safety Administration, U.S. Department of Transportation; Effective December 2, 1992.

22. *Code of Federal Regulations, Chapter V (10-1-93 Edition) National Highway Traffic Administration, Department of Transportation*.

23. *School Bus Safety Report*; May 1993; National Highway Traffic Administration, U.S. Department of Transportation.

24. *Traffic Safety Facts 1992*, National Center for Statistics & Analysis, Research & Development, National Highway Traffic Safety Administration, U.S. Department of Transportation.

25. Carpenter Manufacturing Inc., 11/8/94 phone call. Carpenter manufactures A,B,C,and D class school buses. Their representative gave the following typical vehicle lengths: Class A 21 feet, class B 27 feet, class C 36 feet, class D 38 feet. The author multiplied these by the following percentages based on vehicle sales in recent years reported in reference 3: A 18.7, B 2.2, C 58.3, D 20.7. The resulting average school bus length was 33.375 feet. Carpenter also said school-buses are usually 96 inches in width, though other bus types may be 102 inches.

26. Arthur L. Webster II, estimates of school bus employees and drivers. Regressions results of employees and drivers as a function of buses by type based on statistics for over 500 firms from reference 5. The school-bus rates were then multiplied by the numbers of school buses as estimated from multiple sources including references, 1, 3 and 4.

27. Arthur L. Webster II, fuel use calculations based on the following references: transit reference 11 1993 edition, cars table MV-1 reference 4, and school buses references 19 (primary), 12 (secondary) and 4 (tertiary).

28. Dill Wilson, analyst Department of Health and Human Services, phone call 11/18/1994; (202) 205 8913.

29. Mike Hazzard, Bureau of Labor Statistics official, 11/ 18/1994 fax transmission of unpublished results of the Occupational Statistics Survey, reference date April 12, 1991, printout dated 6/18/ 1992, for SICs 411, 412, 413, 414, 415, 821, 822, 824, 829, 902, and 903; Bureau of Labor Statistics, U.S. Department of Labor; phone (202) 606 6510.

30. Larry Leith, Bureau of Labor Statistics official, 11/21/1994 phone conversation; national totals of bus drivers from Current Population Surveys including non-government: Federal, state, local government; self employed, and unpaid drivers: Current Population Survey Office, Division of Labor Statistics, Office of Unemployment Statistics, U.S. Department of Labor. Phone (202)606 6378.

31. Handouts and briefings at the 1994 Annual Meeting of the National Association of State Directors of Pupil Transportation including: Dennis Bennet, Alcohol and Drug Rulemaking; Kellie P. Dean, Protocol For Transporting the Medically Fragile; and Molly C. Wheeler, The Hostile Schoolbus, the Problem of Sexual Harassment in School Transportation.

32. George Wiggers, Economic Studies Division, Office of Economics, Office of the Assistant Secretary for Transportation Policy, U.S. Department of Transportation. Unpublished original work based on the 1990 Nationwide Personal Travel Survey.

33. Gus Ziselberger, school bus accountant for Montgomery County Maryland, (301) 840 8130, 1/25 & 26/1994 and 11/30/1994 phone conversations. In January Gus explained that Montgomery County operates a fleet of 850 buses; 297 have 35 seats, 120 have up to 54 seats, and the remainder (433) have 56+ seats. All the buses are diesel: the 35 seat buses travel roughly 8.1 miles per gallon; the mid-sized about 7.4 miles per gallon and the large transit type buses average about 6.2 miles per gallon. Though the county no longer operates gasoline powered school buses, Gus said that when they did, they averaged only about five miles per gallon. State law requires school buses be used at

least 12 years. But the diesels appear to be lasting 15 years. Gus feels the lowest cost point is about 8 years. Montgomery County buses average about 122 pupils transported per day. A school bus is used in multiple runs and may serve up to four schools per day.

34. Alan E. Pisarski, *The Demography of the U.S. Vehicle Fleet*, published in the 1990 Nationwide Personal Transportation Survey, Special Reports on Trip and Vehicle Attributes, by the Federal Highway Administration of the U.S. Department of Transportation, Draft, April 1994. Figures with vehicle survival rates for trucks and buses for different time periods attributed to Oak Ridge National Laboratories.

35. *Summary of Selected School Bus Crash Statistics in 1990*, one of an annual series, published by the National Highway Traffic Safety Administration, U.S. Department of Transportation, 400 7th St. S.W. , Washington D.C. 20591.

36. *School Bus Loading and Unloading Survey, Calendar Year 1993, School Year 93-94, annual brochure*, School Bus Safety Education Unit, 120 S.E. 10th Ave., Topeka Kansas 66612-1182, (913) 296-3551.

37. D.D. (Del) Seehusen, 12/2/1994 phone conversation and fax transmission of two nationwide by state bus registration tables. Del was Vice President Truck Group, Statistical Services Division, R.L. Polk & Co. ,115 Brewery Park Blvd., Detroit MI. 48207-2697; (313) 393-4780.

38. *Commercial Vehicle and Off Road Equipment Identification Manual and the 1994 Passenger Vehicle Identification Manual*, by the National Automobile Theft Bureau, and the National Insurance Crime Bureau, Inc. both at 10330 South Roberts Road, Palos Hills, IL 60465.

39. Edward Kashuba, Chief National Data Management and Dissemination Division, Federal Highway Administration, U. S. Department of Transportation; Dec. 14, 1994 phone conversation.

40. Phone contacts with Federal Transit Administration officials including: 11/14/94 conversation with Charlotte Adams, Director of the Office of Policy, Federal Transit Administration re "Tripper service". Charlotte sent a copy of CFR Ch. VI (10-1-92 Edition), Part 605-School Bus Operations: 12/15/94 conversation. Charlotte referred me to Rita Daguillard of the Program Oversight Division, Office of Chief Counsel, Federal Transit Administration. Rita said she knew little about how widespread "Tripper service" under the regulations was. She suggested I call Lesly Rodgers, in the San Francisco Federal Transit Administration Office. I did so. Mr Rodgers explained that the original paperwork associated with programs existed somewhere in FTA files. Once approved, no effort was made to track the program as a program separate from other transit programs.

41. *Catalog of MCMIS Data, and Reports, Summer 1994*, Federal Highway administration Office of Motor Carriers, MCMIS Data Dissemination Program. Publication, No. FHWA-MC-94-017; HIA-10/6-94(500)EW. Prepared by The Scientex Corporation, P.O. Box 13028, Arlington, VA 22219, phone (703) 276 3377. A phone 1/3/1995 phone conversation with Carl Davis of the Scientex Corporation, indicates that all interstate commercial carriers carrying 15 or more people including the driver are required to submit reports. The current file includes all active vehicles registered since 1974. CD-ROM *Carrier File Extract* contains about 316,000 records (most of which are motor

carriers of freight) with up to 1000 characters each. It requires about 300 MB of hard disk and Microsoft Access should be able to handle it.

42. *Status Report on Public Transportation in Rural America, 1994*,: draft report submitted to the Federal Transit Administration. Also Section 16 and Section 18 Files downloaded from the Tap-In Bulletin Board and a copy of Community Transportation Reporter dated January 1995; and a copy of the survey form used to collect transportation information, all from the Community Transportation Association of America, 1440 New York Avenue, N.W., suite 440, Washington D.C. 20005. Phone (202) 628 1480.

43. *Motor Carrier Activities of the Federal Highway Administration*, September 1993, publication of the Federal Highway Administration, U.S. Department of Transportation. The report describes the purview and responsibilities of the Office of Motor Carriers..

44. *Americans in Transit, A Profile of Public Transit Passengers* published by the American Public Transit Association, 1201 New York Ave. N.W., Washington DC 20005, December 1992.

45. *1992 Census of Transportation, Communications, and Utilities, Geographic Area Series, Summary; Establishment and Firm Size; and Nonemployer Statistics Series, Summary*. The survey was conducted in 1993 to cover the year 1992. These were the first three of four planned Bureau of the Census publications based on the survey. The fourth covering vehicles expenses and types of service, is expected to be published in the first half of 1996. The first report was received just after publication on April 30, 1995.

46. Frank Johnson, letter dated April 27, 1994. Frank works for the National Center for Education Statistics, Office of Educational Research and Improvement, U.S. Department of Education. The letter contained nationwide, by state, statistics, on state and local government school transportation expenditures. The original source for the statistics was a Bureau of the Census, Census of Governments survey covering FY 1993 (1992-3 School Year).

47. *Metro* magazine. They annually publish the results of their informal survey for determining the Top 50 firms in terms of commercial coach ownership. In addition, a series of phone discussions were held in May 1995 with Lenny Levine the managing editor. *Metro* is published by the Bobit Publishing Company, 2512 Artesia Boulevard, Redondo Beach, CA 90278. Phone (310) 376 8788.

48. *Transportation in America*, edited by Rosalyn A. Wilson of the ENO Transportation Foundation, Inc. 44211 Slatestone Court, Landsdowne, VA 22075. Phone: (703) 729 7200.

49. Patrick Heinzerling, Greyhound Lines Inc. P.O. Box 660362, Mail Station 327, Dallas, TX 75266, phone (214) 777-8405. Motorcoach fuel consumption statistics were needed. A call was made to Greyhound which operates only motorcoaches (no need for regressions) and has the largest U.S. fleet. A series of phone and exchange of faxes ensued during the first two weeks of June 1995. Pat is in the maintenance department of Greyhound. Greyhound furnished fuel motorcoach fuel consumption rates for 1992 through the first quarter of 1995.

50. William J. Koch, Director of Communication and Public Relations, Laidlaw Passenger Services Group, 3618 West Market St. , Fairlawn, Ohio; phone: (216) 668 6614 (Fairlawn is a suburb of

Akron--Laidlaw headquarters is in Burlington, Ontario, Canada: phone (905) 336 1800). Laidlaw operates more than 22,000 school buses. They were contacted by phone several time in the first two weeks of June 1995. Statistics on school bus fuel consumption were sought. They were not provided. They stated that they do not centrally collect or summarize fuel consumption statistics.

51. *FY 93 End-of-Year Pupil Transportation Report*, Pupil Transportation Unit, Nutrition and Transportation Services Branch, Maryland State Department of Education, 200 West Baltimore St., Baltimore, MD 21201, Phone (410) 333-2602.

52. Larry MacDonald, Larry is an official with the U.S. Census of Governments. On June 15, 1995 he was asked by phone how many school districts in the U.S. spend funds on the transport of pupils at public expense. A return call from an assistant answered that in FY 93, the Census surveyed 16,236 school districts and 14,822 of those surveyed showed expenditures for the transport of students at public expense (91 %). The survey did not have a breakdown showing expenditures associated with owned vehicles and purchased transportation. Phone (301) 457 1563. See reference 46.

53. Donald Tudor, Marshal Casey, South Carolina Dept. of Education, Office of Transportation, phone (803) 734-8250. Donald was phoned June 14, 1995 and asked if he could furnish fuel consumption figures for South Carolina's school buses. Marshal Casey replied with a Fax chart showing miles per gallon rates for gasoline powered, diesel powered, and propane powered vehicles for type A, C, and D type school buses.

54. Alan E. Pisarski: *New Perspectives in Commuting*, published by the Office of Highway Information Management, Federal Highway Administration, U.S. Department of Transportation, July 1992.

55. *Surface Transportation, Availability of Intercity Bus Service Continues to Decline*, General Accounting Office, GAO/RCED-92-126, June 1992.

56. *Destinations Magazine Reader Survey Report*, October 1990, American Bus Association, 1100 N.Y. Ave. N.W. Suite 1050, Washington, D.C. 20005-3934. Phone: (202) 842 1645, Fax (202) 842 0850. Survey manager at time of survey: Mark Beavers, Editor in Chief, Destinations.

57. *1993 Annual Report of the Office of Motor Carriers*, Federal Highway Administration, U.S. Department of Transportation. Report describes accomplishments and effectiveness of the Office of Motor Carrier Field Operations.

58. *ICC92, Interstate Commerce Commission 1992 Annual Report*: one of a long sequence of ICC annual reports. Appendix E of these reports usually reports Class I and II motor carrier of passenger definitions and the numbers of carriers. Available from the ICC or the Superintendent of Documents, Government Printing Office.

59. *Transport Statistics In The United States*: published annually by the ICC Office of Economics; Motor Carriers Part 2, summarizes Class I Motor Carrier of Passenger statistics.

60. Edward H. Rastatter: Office of Transportation Regulatory Affairs, Office of the Assistant

Secretary for Policy and International Affairs, U.S. Department of Transportation. Via phone, Ed described the current status of ICC legislation.

61. *Traffic Safety Data: 1988-1993*, CD ROM disk distributed by Bureau of Transportation Statistics. A compilation of traffic safety reports and data files produced in cooperation with the National Highway Traffic Safety Administration. Both organizations are part of the U.S. Department of Transportation: 1994.

62. *FARS 1994*, a CD ROM of the 1994 Fatal Accident Reporting System Statistics; furnished by the Volpe Transportation Systems Center, Cambridge MA; part of the U.S. Department of Transportation, 1995.

63. *Traffic Safety Facts 1992*, the 1992 annual report of highway traffic safety statistics compiled by the National Highway Traffic Safety Administration, largely from their Fatal Accident Reporting System and General Estimates System data. Furnished by NHTSA, U.S. Department of Transportation, 1995.

64. *The Official Bus Book Market Report*, January 1995 Edition; published twice yearly. This publication purports to be the official blue book for the bus and coach industry. It contains by bus make and model year, dimensions, estimated retail and wholesale value, axles, engine/fuel, transmission and options packages. It also lists names and addresses of bus manufacturers, Industry Associations, and Industry Publications. Bus Book Publishing, Inc. P.O. Box 9, McMinnville, OR 97128-0009; phone (800) 775-4577, FAX (800) 775-9577.

65. *Truck and Bus, Accident Factbook 1992*, prepared by the The Center for National Truck Statistics, University of Michigan Transportation Institute, published by the Office of Motor Carriers, Federal Highway Administration, U.S. Department of Transportation.

66. Ms Cary Shelton: NHTSA representative knowledgeable about GES, Oct. 12. 1995 phone conversation. GES occupant statistics are weak, because some states collect only information on the number of occupants injured (the number of injure persons divided by the number of vehicles for which they are reported, may thus be a better GES indicator of occupancy, than the occupancy statistics). GES axle, and speed data also tend to be weak because many police accident reports on accidents do not report them. To date NHTSA has not used VINs to determine body types in either FARS or GES. Some states may use VIN information in developing their submissions. NHTSA has a contract with R.L. Polk to develop software (VINA) to translate the first 10 digits of VINs into make, model, year (and body type).

67. *Bus Crash Data*: a 33 page of bus crash statisitcs assembled by the Office of Motor Carriers, Analysis Division for a FHWA/OMC Bus Conference July 5, 6, and 7 1995. Jill Hochman of OMC alluded to them in her presentation, and sent them when the author requested them. The statistics, largely from, FARS and GES, were apparently developed with the assistance of NHTSA. The Office of Motor Carriers, Federal Highway Administration (OMC), and National Highway Traffic Safety Administration (NHTSA) are both parts of the U.S. Department of Transportation.

68. *Study of Interstate Commerce Commission Regulatory Responsibilities*, Pursuant of Section 21(a) of the Trucking Industry Regulatory Reform Act of 1994: Interstate Commerce Commission October, 25, 1994.
69. *Federal Motor Carrier Safety Regulations*:Federal Highway Administration, U.S. Department of Transportation.
70. *Directions, The Final Report of the Royal Commission on National Passenger Transportation*: Minister of Supply and Services Canada, published by Canada Communications Group---Publishing, Ottawa, Canada K IA OS9, Catalogue No. DSS Z1-1989/1-2E (4 Vols), ISBN 0-660-14545-6.
71. *FAA Aviation Forecasts, Fiscal Years 1991-2002*, Federal Aviation Administration, U.S.Department of Transportation.
72. Kenneth A. Small, Camilla Kazimi, paper *On Costs of Air Pollution from Motor Vehicles*, Journal of Transport Economics and Policy, Vol.XXIX No. 1. January 1995.
73. *Accident Facts* , 1993 and 1994, National Safety Council, phone: (708) 285 1121.
74. Mike Ellis, California Highway Patrol. Mike is in charge of the program which inspects every California school bus annually; he furnished estimates of the number of school buses serving Los Angeles and Orange County by fuel type in a December 22, 1995 phone conversation (916) 445 1865.
75. Cindy Skrzycki, *The Regulators, Impasse on Emissions*, page D2, Washington Post; Friday, December 8, 1995.
76. Jessica Mathews, *Global Warming No Longer In Doubt*, page A23; Washington Post, Tuesday, December 26, 1995.