Main Topics You Can Find in This "ICME-13

Topical Survey

• A thought-provoking discussion about adult learners, lifelong learning, and mathematics and their beneficial but challenging relationship;

• An extensive literature review of "adult mathematics education" and presentation of synopsis of the six emerging themes;

• A critical discussion about recent developments in adult mathematics/numeracy in terms of policies, provisions, and challenges;

• A detailed discussion of some of the paradoxes and tensions that are emerging as adult learning mathematics becomes increasingly regulated in a rapidly developing digital world;

• A discussion about five potential strategies to promote lifelong learning of mathematics among adult learners.

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429	S	Thick	A3	L4	3	4

430	S	Thick	A3	D6	1	2
431	S	Thick	A3	D6	2	2
432	S	Thick	A3	D6	3	2
433	S	Thick	A3	L6	1	5
434	S	Thick	A3	L6	2	6
435	S	Thick	A3	L6	3	6
436	S	Thick	A3	D7	1	4
437	S	Thick	A3	D7	2	4
438	S	Thick	A3	D7	3	10
439	S	Thick	A3	L7	1	8
440	S	Thick	A3	L7	2	7
441	S	Thick	A3	L7	3	6
442	S	Thick	A3	L8	1	7
443	S	Thick	A3	L8	2	6
444	S	Thick	A3	L8	3	8
445	S	Thick	A3	W9	1	2
446	S	Thick	A3	W9	2	1
447	S	Thick	A3	W9	3	1
448	S	Thick	A3	L9	1	0
449	S	Thick	A3	L9	2	4
450	S	Thick	A3	L9	3	4
451	L	Thin	A3	W4	1	0
452	L	Thin	A3	W4	2	2
453	L	Thin	A3	W4	3	1
454	L	Thin	A3	D4	1	0
455	L	Thin	A3	D4	2	7
456	L	Thin	A3	D4	3	8
457	L	Thin	A3	L4	1	2
458	L	Thin	A3	L4	2	2
459	L	Thin	A3	L4	3	3
460	L	Thin	A3	D6	1	0
461	L	Thin	A3	D6	2	5
462	L	Thin	A3	D6	3	3
463	L	Thin	A3	L6	1	0
464	L	Thin	A3	L6	2	0
465	L	Thin	A3	L6	3	1
466	L	Thin	A3	D7	1	1
467	L	Thin	A3	D7	2	5
468	L	Thin	A3	D7	3	5
469	L	Thin	A3	L7	1	1
470	L	Thin	A3	L7	2	0
471	L	Thin	A3	L7	3	3
472	L	Thin	A3	L8	1	1
473	L	Thin	A3	L8	2	2
474	L	Thin	A3	L8	3	2
475	L	Thin	A3	W9	1	0

476	L	Thin	A3	W9	2	2
477	L	Thin	A3	W9	3	0
478	L	Thin	A3	L9	1	0
479	L	Thin	A3	L9	2	0
480	L	Thin	A3	L9	3	4
481	M	Thin	A6	W4	1	7
482	M	Thin	A6	W4	2	5
483	M	Thin	A6	W4	3	10
484	M	Thin	A6	D4	1	10
485	M	Thin	A6	D4	2	22
486	M	Thin	A6	D4	3	24
487	M	Thin	A6	L4	1	13
488	M	Thin	A6	L4	2	21
489	M	Thin	A6	L4	3	18
490	M	Thin	A6	D6	1	8
491	M	Thin	A6	D6	2	3
492	M	Thin	A6	D6	3	8
493	M	Thin	A6	L6	1	2
494	M	Thin	A6	L6	2	4
495	M	Thin	A6	L6	3	6
496	M	Thin	A6	D7	1	7
497	M	Thin	A6	D7	2	13
498	M	Thin	A6	D7	3	19
499	M	Thin	A6	L7	1	4
500	M	Thin	A6	L7	2	8
501	M	Thin	A6	L7	3	8
502	M	Thin	A6	L8	1	7
503	M	Thin	A6	L8	2	9
504	M	Thin	A6	L8	3	8
505	M	Thin	A6	W9	1	3
506	M	Thin	A6	W9	2	0
507	M	Thin	A6	W9	3	1
508	M	Thin	A6	L9	1	3
509	M	Thin	A6	L9	2	7
510	M	Thin	A6	L9	3	15
511	S	Thin	A6	W4	1	16
512	S	Thin	A6	W4	2	34
513	S	Thin	A6	W4	3	34
514	S	Thin	A6	D4	1	20
515	S	Thin	A6	D4	2	39
516	S	Thin	A6	D4	3	40
517	S	Thin	A6	L4	1	25
518	S	Thin	A6	L4	2	37
519	S	Thin	A6	L4	3	33
520	S	Thin	A6	D6	1	15
521	S	Thin	A6	D6	2	28

522	S	Thin	A6	D6	3	29
523	S	Thin	A6	L6	1	7
524	S	Thin	A6	L6	2	15
525	S	Thin	A6	L6	3	18
526	S	Thin	A6	D7	1	24
527	S	Thin	A6	D7	2	33
528	S	Thin	A6	D7	3	36
529	S	Thin	A6	L7	1	13
530	S	Thin	A6	L7	2	19
531	S	Thin	A6	L7	3	23
532	S	Thin	A6	L8	1	15
533	S	Thin	A6	L8	2	20
534	S	Thin	A6	L8	3	22
535	S	Thin	A6	W9	1	3
536	S	Thin	A6	W9	2	4
537	S	Thin	A6	W9	3	6
538	S	Thin	A6	L9	1	8
539	S	Thin	A6	L9	2	17
540	S	Thin	A6	L9	3	22
541	L	Thick	B3	W4	1	0
542	L	Thick	B3	W4	2	0
543	L	Thick	B3	W4	3	1
544	L	Thick	B3	D4	1	0
545	L	Thick	B3	D4	2	0
546	L	Thick	B3	D4	3	0
547	L	Thick	B3	L4	1	1
548	L	Thick	B3	L4	2	5
549	L	Thick	B3	L4	3	2
550	L	Thick	B3	D6	1	0
551	L	Thick	B3	D6	2	1
552	L	Thick	B3	D6	3	3
553	L	Thick	B3	L6	1	3
554	L	Thick	B3	L6	2	3
555	L	Thick	B3	L6	3	1
556	L	Thick	B3	D7	1	0
557	L	Thick	B3	D7	2	0
558	L	Thick	B3	D7	3	2
559	L	Thick	B3	L7	1	0
560	L	Thick	B3	L7	2	2
561	L	Thick	B3	L7	3	0
562	L	Thick	B3	L8	1	3
563	L	Thick	B3	L8	2	2
564	L	Thick	B3	L8	3	2
565	L	Thick	B3	W9	1	0
566	L	Thick	B3	W9	2	0
567	L	Thick	B3	W9	3	0

568	L	Thick	B3	L9	1	0
569	L	Thick	B3	L9	2	0
570	L	Thick	B3	L9	3	0
571	M	Thick	B3	W4	1	0
572	M	Thick	B3	W4	2	1
573	M	Thick	B3	W4	3	0
574	M	Thick	B3	D4	1	2
575	M	Thick	B3	D4	2	0
576	M	Thick	B3	D4	3	0
577	M	Thick	B3	L4	1	0
578	M	Thick	B3	L4	2	3
579	M	Thick	B3	L4	3	1
580	M	Thick	B3	D6	1	0
581	M	Thick	B3	D6	2	0
582	M	Thick	B3	D6	3	0
583	M	Thick	B3	L6	1	2
584	M	Thick	B3	L6	2	2
585	M	Thick	B3	L6	3	1
586	M	Thick	B3	D7	1	2
587	M	Thick	B3	D7	2	2
588	M	Thick	B3	D7	3	1
589	M	Thick	B3	L7	1	2
590	M	Thick	B3	L7	2	1
591	M	Thick	B3	L7	3	0
592	M	Thick	B3	L8	1	1
593	M	Thick	B3	L8	2	1
594	M	Thick	B3	L8	3	0
595	M	Thick	B3	W9	1	0
596	M	Thick	B3	W9	2	0
597	M	Thick	B3	W9	3	1
598	M	Thick	B3	L9	1	1
599	M	Thick	B3	L9	2	2
600	M	Thick	B3	L9	3	1
601	S	Thick	B3	W4	1	2
602	S	Thick	B3	W4	2	6
603	S	Thick	B3	W4	3	5
604	S	Thick	B3	D4	1	9
605	S	Thick	B3	D4	2	9
606	S	Thick	B3	D4	3	10
607	S	Thick	B3	L4	1	10
608	S	Thick	B3	L4	2	14
609	S	Thick	B3	L4	3	19
610	S	Thick	B3	D6	1	2
611	S	Thick	B3	D6	2	6
612	S	Thick	B3	D6	3	6
613	S	Thick	B3	L6	1	2

614	S	Thick	B3	L6	2	2
615	S	Thick	B3	L6	3	7
616	S	Thick	B3	D7	1	7
617	S	Thick	B3	D7	2	7
618	S	Thick	B3	D7	3	10
619	S	Thick	B3	L7	1	14
620	S	Thick	B3	L7	2	8
621	S	Thick	B3	L7	3	6
622	S	Thick	B3	L8	1	9
623	S	Thick	B3	L8	2	8
624	S	Thick	B3	L8	3	8
625	S	Thick	B3	W9	1	2
626	S	Thick	B3	W9	2	1
627	S	Thick	B3	W9	3	1
628	S	Thick	B3	L9	1	3
629	S	Thick	B3	L9	2	5
630	S	Thick	B3	L9	3	6
631	L	Thin	B3	W4	1	0
632	L	Thin	B3	W4	2	1
633	L	Thin	B3	W4	3	2
634	L	Thin	B3	D4	1	0
635	L	Thin	B3	D4	2	5
636	L	Thin	B3	D4	3	5
637	L	Thin	B3	L4	1	3
638	L	Thin	B3	L4	2	9
639	L	Thin	B3	L4	3	6
640	L	Thin	B3	D6	1	3
641	L	Thin	B3	D6	2	1
642	L	Thin	B3	D6	3	1
643	L	Thin	B3	L6	1	0
644	L	Thin	B3	L6	2	4
645	L	Thin	B3	L6	3	3
646	L	Thin	B3	D7	1	0
647	L	Thin	B3	D7	2	2
648	L	Thin	B3	D7	3	5
649	L	Thin	B3	L7	1	2
650	L	Thin	B3	L7	2	2
651	L	Thin	B3	L7	3	5
652	L	Thin	B3	L8	1	1
653	L	Thin	B3	L8	2	4
654	L	Thin	B3	L8	3	3
655	L	Thin	B3	W9	1	0
656	L	Thin	B3	W9	2	1
657	L	Thin	B3	W9	3	1
658	L	Thin	B3	L9	1	0
659	L	Thin	B3	L9	2	0

660	L	Thin	B3	L9	3	0
661	M	Thin	B3	W4	1	0
662	M	Thin	B3	W4	2	1
663	M	Thin	B3	W4	3	8
664	M	Thin	B3	D4	1	0
665	M	Thin	B3	D4	2	3
666	M	Thin	B3	D4	3	7
667	M	Thin	B3	L4	1	0
668	M	Thin	B3	L4	2	3
669	M	Thin	B3	L4	3	4
670	M	Thin	B3	D6	1	1
671	M	Thin	B3	D6	2	1
672	M	Thin	B3	D6	3	2
673	M	Thin	B3	L6	1	0
674	M	Thin	B3	L6	2	2
675	M	Thin	B3	L6	3	1
676	M	Thin	B3	D7	1	1
677	M	Thin	B3	D7	2	2
678	M	Thin	B3	D7	3	3
679	M	Thin	B3	L7	1	2
680	M	Thin	B3	L7	2	2
681	M	Thin	B3	L7	3	2
682	M	Thin	B3	L8	1	1
683	M	Thin	B3	L8	2	5
684	M	Thin	B3	L8	3	2
685	M	Thin	B3	W9	1	0
686	M	Thin	B3	W9	2	0
687	M	Thin	B3	W9	3	0
688	M	Thin	B3	L9	1	0
689	M	Thin	B3	L9	2	0
690	M	Thin	B3	L9	3	4
691	S	Thin	B3	W4	1	16
692	S	Thin	B3	W4	2	27
693	S	Thin	B3	W4	3	28
694	S	Thin	B3	D4	1	24
695	S	Thin	B3	D4	2	29
696	S	Thin	B3	D4	3	25
697	S	Thin	B3	L4	1	24
698	S	Thin	B3	L4	2	34
699	S	Thin	B3	L4	3	32
700	S	Thin	B3	D6	1	17
701	S	Thin	B3	D6	2	27
702	S	Thin	B3	D6	3	22
703	S	Thin	B3	L6	1	15
704	S	Thin	B3	L6	2	11
705	S	Thin	B3	L6	3	13

706	S	Thin	B3	D7	1	19
707	S	Thin	B3	D7	2	24
708	S	Thin	B3	D7	3	23
709	S	Thin	B3	L7	1	20
710	S	Thin	B3	L7	2	18
711	S	Thin	B3	L7	3	11
712	S	Thin	B3	L8	1	20
713	S	Thin	B3	L8	2	28
714	S	Thin	B3	L8	3	16
715	S	Thin	B3	W9	1	5
716	S	Thin	B3	W9	2	3
717	S	Thin	B3	W9	3	4
718	S	Thin	B3	L9	1	12
719	S	Thin	B3	L9	2	14
720	S	Thin	B3	L9	3	16
721	L	Thick	B6	W4	1	6
722	L	Thick	B6	W4	2	8
723	L	Thick	B6	W4	3	3
724	L	Thick	B6	D4	1	1
725	L	Thick	B6	D4	2	0
726	L	Thick	B6	D4	3	1
727	L	Thick	B6	L4	1	0
728	L	Thick	B6	L4	2	0
729	L	Thick	B6	L4	3	0
730	L	Thick	B6	D6	1	0
731	L	Thick	B6	D6	2	0
732	L	Thick	B6	D6	3	0
733	L	Thick	B6	L6	1	0
734	L	Thick	B6	L6	2	0
735	L	Thick	B6	L6	3	0
736	L	Thick	B6	D7	1	0
737	L	Thick	B6	D7	2	0
738	L	Thick	B6	D7	3	0
739	L	Thick	B6	L7	1	0
740	L	Thick	B6	L7	2	0
741	L	Thick	B6	L7	3	0
742	L	Thick	B6	L8	1	1
743	L	Thick	B6	L8	2	0
744	L	Thick	B6	L8	3	0
745	L	Thick	B6	W9	1	1
746	L	Thick	B6	W9	2	1
747	L	Thick	B6	W9	3	0
748	L	Thick	B6	L9	1	0
749	L	Thick	B6	L9	2	1
750	L	Thick	B6	L9	3	0
751	M	Thick	B6	W4	1	0

752	M	Thick	B6	W4	2	2
753	M	Thick	B6	W4	3	2
754	M	Thick	B6	D4	1	2
755	M	Thick	B6	D4	2	5
756	M	Thick	B6	D4	3	0
757	M	Thick	B6	L4	1	5
758	M	Thick	B6	L4	2	9
759	M	Thick	B6	L4	3	6
760	M	Thick	B6	D6	1	0
761	M	Thick	B6	D6	2	2
762	M	Thick	B6	D6	3	0
763	M	Thick	B6	L6	1	4
764	M	Thick	B6	L6	2	1
765	M	Thick	B6	L6	3	1
766	M	Thick	B6	D7	1	5
767	M	Thick	B6	D7	2	4
768	M	Thick	B6	D7	3	1
769	M	Thick	B6	L7	1	4
770	M	Thick	B6	L7	2	3
771	M	Thick	B6	L7	3	1
772	M	Thick	B6	L8	1	5
773	M	Thick	B6	L8	2	10
774	M	Thick	B6	L8	3	2
775	M	Thick	B6	W9	1	0
776	M	Thick	B6	W9	2	2
777	M	Thick	B6	W9	3	0
778	M	Thick	B6	L9	1	0
779	M	Thick	B6	L9	2	2
780	M	Thick	B6	L9	3	0
781	S	Thick	B6	W4	1	17
782	S	Thick	B6	W4	2	10
783	S	Thick	B6	W4	3	12
784	S	Thick	B6	D4	1	9
785	S	Thick	B6	D4	2	22
786	S	Thick	B6	D4	3	18
787	S	Thick	B6	L4	1	29
788	S	Thick	B6	L4	2	30
789	S	Thick	B6	L4	3	27
790	S	Thick	B6	D6	1	13
791	S	Thick	B6	D6	2	13
792	S	Thick	B6	D6	3	19
793	S	Thick	B6	L6	1	7
794	S	Thick	B6	L6	2	14
795	S	Thick	B6	L6	3	6
796	S	Thick	B6	D7	1	13
797	S	Thick	B6	D7	2	19

798	S	Thick	B6	D7	3	19
799	S	Thick	B6	L7	1	13
800	S	Thick	B6	L7	2	21
801	S	Thick	B6	L7	3	13
802	S	Thick	B6	L8	1	14
803	S	Thick	B6	L8	2	15
804	S	Thick	B6	L8	3	11
805	S	Thick	B6	W9	1	2
806	S	Thick	B6	W9	2	5
807	S	Thick	B6	W9	3	5
808	S	Thick	B6	L9	1	10
809	S	Thick	B6	L9	2	7
810	S	Thick	B6	L9	3	8
811	L	Thin	B6	W4	1	13
812	L	Thin	B6	W4	2	11
813	L	Thin	B6	W4	3	17
814	L	Thin	B6	D4	1	4
815	L	Thin	B6	D4	2	11
816	L	Thin	B6	D4	3	15
817	L	Thin	B6	L4	1	6
818	L	Thin	B6	L4	2	17
819	L	Thin	B6	L4	3	12
820	L	Thin	B6	D6	1	3
821	L	Thin	B6	D6	2	3
822	L	Thin	B6	D6	3	7
823	L	Thin	B6	L6	1	4
824	L	Thin	B6	L6	2	6
825	L	Thin	B6	L6	3	3
826	L	Thin	B6	D7	1	7
827	L	Thin	B6	D7	2	11
828	L	Thin	B6	D7	3	10
829	L	Thin	B6	L7	1	3
830	L	Thin	B6	L7	2	3
831	L	Thin	B6	L7	3	5
832	L	Thin	B6	L8	1	5
833	L	Thin	B6	L8	2	11
834	L	Thin	B6	L8	3	9
835	L	Thin	B6	W9	1	1
836	L	Thin	B6	W9	2	0
837	L	Thin	B6	W9	3	0
838	L	Thin	B6	L9	1	7
839	L	Thin	B6	L9	2	8
840	L	Thin	B6	L9	3	4
841	M	Thin	B6	W4	1	5
842	M	Thin	B6	W4	2	7
843	M	Thin	B6	W4	3	9

844	M	Thin	B6	D4	1	5
845	M	Thin	B6	D4	2	21
846	M	Thin	B6	D4	3	14
847	M	Thin	B6	L4	1	9
848	M	Thin	B6	L4	2	17
849	M	Thin	B6	L4	3	15
850	M	Thin	B6	D6	1	3
851	M	Thin	B6	D6	2	7
852	M	Thin	B6	D6	3	4
853	M	Thin	B6	L6	1	5
854	M	Thin	B6	L6	2	4
855	M	Thin	B6	L6	3	4
856	M	Thin	B6	D7	1	7
857	M	Thin	B6	D7	2	14
858	M	Thin	B6	D7	3	7
859	M	Thin	B6	L7	1	7
860	M	Thin	B6	L7	2	7
861	M	Thin	B6	L7	3	4
862	M	Thin	B6	L8	1	8
863	M	Thin	B6	L8	2	5
864	M	Thin	B6	L8	3	11
865	M	Thin	B6	W9	1	3
866	M	Thin	B6	W9	2	4
867	M	Thin	B6	W9	3	5
868	M	Thin	B6	L9	1	0
869	M	Thin	B6	L9	2	8
870	M	Thin	B6	L9	3	9
871	S	Thin	B6	W4	1	46
872	S	Thin	B6	W4	2	48
873	S	Thin	B6	W4	3	45
874	S	Thin	B6	D4	1	39
875	S	Thin	B6	D4	2	44
876	S	Thin	B6	D4	3	45
877	S	Thin	B6	L4	1	39
878	S	Thin	B6	L4	2	41
879	S	Thin	B6	L4	3	42
880	S	Thin	B6	D6	1	34
881	S	Thin	B6	D6	2	44
882	S	Thin	B6	D6	3	30
883	S	Thin	B6	L6	1	13
884	S	Thin	B6	L6	2	25
885	S	Thin	B6	L6	3	20
886	S	Thin	B6	D7	1	36
887	S	Thin	B6	D7	2	43
888	S	Thin	B6	D7	3	35
889	S	Thin	B6	L7	1	11

```
890       S   Thin   B6      L7     2    29
891       S   Thin   B6      L7     3    20
892       S   Thin   B6      L8     1    15
893       S   Thin   B6      L8     2    31
894       S   Thin   B6      L8     3    26
895       S   Thin   B6      W9     1    13
896       S   Thin   B6      W9     2    21
897       S   Thin   B6      W9     3    15
898       S   Thin   B6      L9     1    11
899       S   Thin   B6      L9     2    33
900       S   Thin   B6      L9     3    15
```

```
> # Dotson (1990) Page 93: Randomized Controlled Trial :
> counts <- c(18,17,15,20,10,20,25,13,12)
> outcome <- gl(3,1,9)
> treatment <- gl(3,3)
> data.frame(treatment, outcome, counts)  #showing data
```

```
  treatment outcome counts
1         1       1     18
2         1       2     17
3         1       3     15
4         2       1     20
5         2       2     10
6         2       3     20
7         3       1     25
8         3       2     13
9         3       3     12
```

```
> glm.D93 <- glm(counts ~ outcome + treatment, family = poisson())
> anova(glm.D93)

Analysis of Deviance Table

Model: poisson, link: log

Response: counts

Terms added sequentially (first to last)


          Df Deviance Resid. Df Resid. Dev
NULL                          8    10.5814
outcome    2   5.4523         6     5.1291
treatment  2   0.0000         4     5.1291

> summary(glm.D93)
```

```
Call:
glm(formula = counts ~ outcome + treatment, family = poisson())

Deviance Residuals:
       1         2         3         4         5         6         7         8
-0.67125   0.96272  -0.16965  -0.21999  -0.95552   1.04939   0.84715  -0.09167
       9
-0.96656

Coefficients:
             Estimate Std. Error z value Pr(>|z|)
(Intercept)  3.045e+00  1.709e-01  17.815   <2e-16 ***
outcome2    -4.543e-01  2.022e-01  -2.247   0.0246 *
outcome3    -2.930e-01  1.927e-01  -1.520   0.1285
treatment2   1.217e-15  2.000e-01   0.000   1.0000
treatment3   8.438e-16  2.000e-01   0.000   1.0000
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

    Null deviance: 10.5814  on 8  degrees of freedom
Residual deviance:  5.1291  on 4  degrees of freedom
AIC: 56.761

Number of Fisher Scoring iterations: 4

> ## Computing AIC [in many ways]:
> (A0 <- AIC(glm.D93))

[1] 56.76132

> (ll <- logLik(glm.D93))

'log Lik.' -23.38066 (df=5)

> A1 <- -2*c(ll) + 2*attr(ll, "df")
> A2 <- glm.D93$family$aic(counts, mu=fitted(glm.D93), wt=1) +
+   2 * length(coef(glm.D93))
> stopifnot(exprs = {
+   all.equal(A0, A1)
+   all.equal(A1, A2)
+   all.equal(A1, glm.D93$aic)
+ })
> # an example with offsets from Venables & Ripley (2002, p.189)
>
>
```

```
>
> utils::data(anorexia, package = "MASS")
> anorex.1 <- glm(Postwt ~ Prewt + Treat + offset(Prewt),
+                 family = gaussian, data = anorexia)
> summary(anorex.1)

Call:
glm(formula = Postwt ~ Prewt + Treat + offset(Prewt), family = gaussian,
    data = anorexia)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-14.1083   -4.2773   -0.5484    5.4838   15.2922

Coefficients:
            Estimate Std. Error t value Pr(>|t|)
(Intercept)  49.7711    13.3910   3.717 0.000410 ***
Prewt        -0.5655     0.1612  -3.509 0.000803 ***
TreatCont    -4.0971     1.8935  -2.164 0.033999 *
TreatFT       4.5631     2.1333   2.139 0.036035 *
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for gaussian family taken to be 48.69504)

    Null deviance: 4525.4  on 71  degrees of freedom
Residual deviance: 3311.3  on 68  degrees of freedom
AIC: 489.97

Number of Fisher Scoring iterations: 2

> ## A Gamma example, from McCullagh & Nelder (1989, pp. 300-2)
> clotting <- data.frame(
+   u = c(5,10,15,20,30,40,60,80,100),
+   lot1 = c(118,58,42,35,27,25,21,19,18),
+   lot2 = c(69,35,26,21,18,16,13,12,12))
> summary(glm(lot1 ~ log(u), data = clotting, family = Gamma))

Call:
glm(formula = lot1 ~ log(u), family = Gamma, data = clotting)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-0.04008  -0.03756  -0.02637   0.02905   0.08641

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
```

```
(Intercept) -0.0165544  0.0009275  -17.85 4.28e-07 ***
log(u)       0.0153431  0.0004150   36.98 2.75e-09 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for Gamma family taken to be 0.002446059)

    Null deviance: 3.51283  on 8  degrees of freedom
Residual deviance: 0.01673  on 7  degrees of freedom
AIC: 37.99

Number of Fisher Scoring iterations: 3
```

```
> summary(glm(lot2 ~ log(u), data = clotting, family = Gamma))

Call:
glm(formula = lot2 ~ log(u), family = Gamma, data = clotting)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-0.05574  -0.02925   0.01030   0.01714   0.06371

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) -0.0239085  0.0013265  -18.02 4.00e-07 ***
log(u)       0.0235992  0.0005768   40.91 1.36e-09 ***
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for Gamma family taken to be 0.001813354)

    Null deviance: 3.118557  on 8  degrees of freedom
Residual deviance: 0.012672  on 7  degrees of freedom
AIC: 27.032

Number of Fisher Scoring iterations: 3
```

```
> # Aliased ("S"singular) -> 1 NA coefficient
> (fS <- glm(lot2 ~ log(u) + log(u^2), data = clotting, family = Gamma))

Call:  glm(formula = lot2 ~ log(u) + log(u^2), family = Gamma, data = clotting)

Coefficients:
(Intercept)       log(u)     log(u^2)
   -0.02391      0.02360           NA

Degrees of Freedom: 8 Total (i.e. Null);  7 Residual
```

```
Null Deviance:            3.119
Residual Deviance: 0.01267         AIC: 27.03

> # tools::assertError(update(fS, singular.ok=FALSE), verbose=interactive())
> # -> .. "singular fit encountered"
> # Not run:
> # for an example of the use of a terms object as a formula
> demo(glm.vr)

        demo(glm.vr)
        ---- ~~~~~~

> #  Copyright (C) 1997-2009 The R Core Team
>
> #### -*- R -*-
> require(stats)

> Fr <- c(68,42,42,30, 37,52,24,43,
+         66,50,33,23, 47,55,23,47,
+         63,53,29,27, 57,49,19,29)

> Temp <- gl(2, 2, 24, labels = c("Low", "High"))

> Soft <- gl(3, 8, 24, labels = c("Hard","Medium","Soft"))

> M.user <- gl(2, 4, 24, labels = c("N", "Y"))

> Brand <- gl(2, 1, 24, labels = c("X", "M"))

> detg <- data.frame(Fr,Temp, Soft,M.user, Brand)

> detg.m0 <- glm(Fr ~ M.user*Temp*Soft + Brand, family = poisson, data = detg)

> summary(detg.m0)

Call:
glm(formula = Fr ~ M.user * Temp * Soft + Brand, family = poisson,
    data = detg)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-2.20876  -0.99190  -0.00126   0.93542   1.97601

Coefficients:
                           Estimate Std. Error z value Pr(>|z|)
(Intercept)                 4.01524    0.10034  40.018  < 2e-16 ***
```

```
M.userY                      -0.21184    0.14257  -1.486  0.13731
TempHigh                     -0.42381    0.15159  -2.796  0.00518 **
SoftMedium                    0.05311    0.13308   0.399  0.68984
SoftSoft                      0.05311    0.13308   0.399  0.68984
BrandM                       -0.01587    0.06300  -0.252  0.80106
M.userY:TempHigh              0.13987    0.22168   0.631  0.52806
M.userY:SoftMedium            0.08323    0.19685   0.423  0.67245
M.userY:SoftSoft              0.12169    0.19591   0.621  0.53449
TempHigh:SoftMedium          -0.30442    0.22239  -1.369  0.17104
TempHigh:SoftSoft            -0.30442    0.22239  -1.369  0.17104
M.userY:TempHigh:SoftMedium   0.21189    0.31577   0.671  0.50220
M.userY:TempHigh:SoftSoft    -0.20387    0.32540  -0.627  0.53098
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

    Null deviance: 118.627  on 23  degrees of freedom
Residual deviance:  32.826  on 11  degrees of freedom
AIC: 191.24

Number of Fisher Scoring iterations: 4


> detg.mod <- glm(terms(Fr ~ M.user*Temp*Soft + Brand*M.user*Temp,
+                       keep.order = TRUE),
+                 family = poisson, data = detg)

> summary(detg.mod)

Call:
glm(formula = terms(Fr ~ M.user * Temp * Soft + Brand * M.user *
    Temp, keep.order = TRUE), family = poisson, data = detg)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-0.91365  -0.35585   0.00253   0.33027   0.92146

Coefficients:
                           Estimate Std. Error z value Pr(>|z|)
(Intercept)                 4.14887    0.10603  39.128  < 2e-16 ***
M.userY                    -0.40521    0.16188  -2.503  0.01231 *
TempHigh                   -0.44275    0.17121  -2.586  0.00971 **
M.userY:TempHigh           -0.12692    0.26257  -0.483  0.62883
SoftMedium                  0.05311    0.13308   0.399  0.68984
SoftSoft                    0.05311    0.13308   0.399  0.68984
```

```
M.userY:SoftMedium           0.08323    0.19685   0.423  0.67245
M.userY:SoftSoft             0.12169    0.19591   0.621  0.53449
TempHigh:SoftMedium         -0.30442    0.22239  -1.369  0.17104
TempHigh:SoftSoft           -0.30442    0.22239  -1.369  0.17104
M.userY:TempHigh:SoftMedium  0.21189    0.31577   0.671  0.50220
M.userY:TempHigh:SoftSoft   -0.20387    0.32540  -0.627  0.53098
BrandM                      -0.30647    0.10942  -2.801  0.00510 **
M.userY:BrandM               0.40757    0.15961   2.554  0.01066 *
TempHigh:BrandM              0.04411    0.18463   0.239  0.81119
M.userY:TempHigh:BrandM      0.44427    0.26673   1.666  0.09579 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

    Null deviance: 118.627  on 23  degrees of freedom
Residual deviance:   5.656  on  8  degrees of freedom
AIC: 170.07

Number of Fisher Scoring iterations: 4


> summary(detg.mod, correlation = TRUE, symbolic.cor = TRUE)

Call:
glm(formula = terms(Fr ~ M.user * Temp * Soft + Brand * M.user *
    Temp, keep.order = TRUE), family = poisson, data = detg)

Deviance Residuals:
     Min        1Q    Median        3Q       Max
-0.91365  -0.35585   0.00253   0.33027   0.92146

Coefficients:
                            Estimate Std. Error z value Pr(>|z|)
(Intercept)                  4.14887    0.10603  39.128  < 2e-16 ***
M.userY                     -0.40521    0.16188  -2.503  0.01231 *
TempHigh                    -0.44275    0.17121  -2.586  0.00971 **
M.userY:TempHigh            -0.12692    0.26257  -0.483  0.62883
SoftMedium                   0.05311    0.13308   0.399  0.68984
SoftSoft                     0.05311    0.13308   0.399  0.68984
M.userY:SoftMedium           0.08323    0.19685   0.423  0.67245
M.userY:SoftSoft             0.12169    0.19591   0.621  0.53449
TempHigh:SoftMedium         -0.30442    0.22239  -1.369  0.17104
TempHigh:SoftSoft           -0.30442    0.22239  -1.369  0.17104
M.userY:TempHigh:SoftMedium  0.21189    0.31577   0.671  0.50220
M.userY:TempHigh:SoftSoft   -0.20387    0.32540  -0.627  0.53098
```

```
BrandM                       -0.30647    0.10942  -2.801  0.00510 **
M.userY:BrandM                0.40757    0.15961   2.554  0.01066 *
TempHigh:BrandM               0.04411    0.18463   0.239  0.81119
M.userY:TempHigh:BrandM       0.44427    0.26673   1.666  0.09579 .
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1

(Dispersion parameter for poisson family taken to be 1)

    Null deviance: 118.627  on 23  degrees of freedom
Residual deviance:   5.656  on  8  degrees of freedom
AIC: 170.07

Number of Fisher Scoring iterations: 4

Correlation of Coefficients:

(Intercept)                 1
M.userY                     , 1
TempHigh                    , . 1
M.userY:TempHigh            . , , 1
SoftMedium                  , . .   1
SoftSoft                    , . .   . 1
M.userY:SoftMedium          . ,   . , . 1
M.userY:SoftSoft            . ,   . . , . 1
TempHigh:SoftMedium         .   , . . . .   1
TempHigh:SoftSoft           .   , . . .   . . 1
M.userY:TempHigh:SoftMedium   . . . .   , . , . 1
M.userY:TempHigh:SoftSoft     . . .   . . , . , . 1
BrandM                      .                       1
M.userY:BrandM                .                     , 1
TempHigh:BrandM                 . .                 . . 1
M.userY:TempHigh:BrandM         . .                 . . , 1
attr(,"legend")
[1] 0 ‘ ’ 0.3 ‘.’ 0.6 ‘,’ 0.8 ‘+’ 0.9 ‘*’ 0.95 ‘B’ 1


> anova(detg.m0, detg.mod)
Analysis of Deviance Table

Model 1: Fr ~ M.user * Temp * Soft + Brand
Model 2: Fr ~ M.user * Temp * Soft + Brand * M.user * Temp
  Resid. Df Resid. Dev Df Deviance
1        11     32.826
2         8      5.656  3    27.17
```

```
>
> # End(Not run)
```

Chapter 1

Introduction

The troika of adult learners, lifelong learning, and mathematics is a unique one. They all are significant in individual capacity and when intermingled makes a use- fool combination for the benefit of humanity and society. Adult learners are a significant proportion of the world population, lifelong learning is vital to keep one active and engaged, and mathematical learning is important to success in different walks of life. Adult learners practicing lifelong mathematical learning are supposed to be more productive, economically active, and individually satisfied. Instead of these obvious benefits, it is an irony that promotion of lifelong learning of mathematics among adult learners is not high on national and international agenda. In this back- drop, the present book mirrors the troika of adult learners, lifelong learning, and mathematics from three angles. The first angle reveals that adult learners, lifelong learning, and mathematics are significant in individual capacity and when intermingled makes a useful combination for benefit of humanity and society. Adult learners are a significant proportion of world population, lifelong learning is vital to keep one active and engaged, and mathematical learning is important to get success in dif- referent walks of life. Adult learners practicing lifelong mathematical learning are supposed to be more productive, economically active, and individually satisfied. The observation ends on the note that instead of the obvious benefits, promotion of lifelong learning of mathematics among adult learners is not high on national and international agenda. The second angle confirms that the literature base on adults learning mathematics has grown substantially over the past twenty-five years. It is not, however, main- stream and much of the research lies hidden in doctoral dissertations and con- conference proceedings. Stigmatization of the results of a literature review and examination of journal articles indexed as "adult mathematics education" present before us six themes related to adult learning mathematics. While, the third angle looks at recent developments in adult mathematics/numeracy in terms of policy and provision and discusses some of the paradoxes and tensions that are emerging as

```
> # ----setup, echo=FALSE-------------------------------------------------------
> library(knitr)
> opts_chunk$set(warning = FALSE, message = FALSE)
> # ----comfit-----------------------------------------------------------------
> lmfit <- lm(mpg ~ wt, mtcars)
> # lmfit
```

```
> # summary(lmfit)
>
> # ------------------------------------------------------------------------
> library(broom)
> # tidy(lmfit)
>
> # ------------------------------------------------------------------------
> # augment(lmfit)
>
> # ------------------------------------------------------------------------
> #glance(lmfit)
>
> # ----glmfit-------------------------------------------------------------
> glmfit <- glm(am ~ wt, mtcars, family = "binomial")
> # tidy(glmfit)
> # augment(glmfit)
> glance(glmfit)

# A tibble: 1 × 8
  null.deviance df.null logLik   AIC   BIC deviance df.residual  nobs
          <dbl>   <int>  <dbl> <dbl> <dbl>    <dbl>       <int> <int>
1          43.2      31  -9.59  23.2  26.1     19.2          30    32

> # ------------------------------------------------------------------------
> nlsfit <- nls(mpg ~ k / wt + b, mtcars, start = list(k = 1, b = 0))
> # tidy(nlsfit)
> # augment(nlsfit, mtcars)
> # glance(nlsfit)
>
> # ----ttest--------------------------------------------------------------
> tt <- t.test(wt ~ am, mtcars)
> # tidy(tt)
>
> # ------------------------------------------------------------------------
> wt <- wilcox.test(wt ~ am, mtcars)
> # tidy(wt)
>
> # ------------------------------------------------------------------------
> # glance(tt)
> # glance(wt)
>
> # ------------------------------------------------------------------------
> chit <- chisq.test(xtabs(Freq ~ Sex + Class,
+                          data = as.data.frame(Titanic)))
> # tidy(chit)
> # augment(chit)
```

Chapter 2 Survey on State-of-the-Art

2.1 The Troika of Adult Learners, Lifelong Learning and Mathematics

What are "adult learners"? Adult learners are usually defined as a very diverse group (typically ages 25 and older) with a wide range of abilities, educational and cultural backgrounds, responsibilities and job experiences (Southern Regional Education Board 2015). 'Adult' is interpreted as referring to people who start, resume or continue their education in formal, informal or non-formal settings, beyond the normal age of schooling in their societies (ICME 13 2015). Looking into the future we see a rising number of adult learners. Adult learners are different from traditional college students. Many adult learners have responsibilities (e.g., families and jobs) and situations (e.g., transportation, childcare, domestic violence and the need to earn an income) that can interfere with the learning process. Most adults enter educational programs voluntarily and manage their classes around work and family responsibilities. Additionally, most adult learners are highly motif- voted and task-oriented (Merriam and Carmella 1999). Talking about the character- heuristics of adult learners, Kappas (2013) observes, Adults are characterized by maturity, self-confidence, autonomy, solid decision-making, and are generally more practical, multi-tasking, purposeful, self-directed, experienced, and less open-minded and receptive to change. All these traits affect their motivation, as well as their ability to learn. These adult learners face many challenges in their lives, such as multiple careers, fewer stable social structures to rely on, living longer, and dealing with aging parents. The past is less helpful for them as a guide for living in the present. Their life is complex due to career, family, and other personal choices (Concerned 2008, p. 139). These adult learners are supposed to have some kind of sup- port system to keep them active, productive, and receptive to face the challenges and complexities of life. Learning throughout life is one such support system.

```
>    # carData::AMSsurvey
```

2.1.1 Lifelong Learning for Adult Learners:

Need and Significance The concept of lifelong learning stresses that learning and education are related to life as a whole—not just to work—and learning throughout life is a continuum that should run from cradle to grave. According to this concept, lifelong learn- ING refers to all kinds of formal education and training (whether or not they carry certification); and can occur anywhere including education or training institute- sons, the workplace (on or off the job), the family, or cultural and community set- tings (Mira 2012, p. 289). Lifelong learning, according to Royce (1999, p. 149), "Aims to give students the skills to go on learning throughout life and also posit- rive attitudes towards learning

which accept and even welcome change and new learning." In this sense, lifelong learning supports the development of knowledge and competences to enable each citizen to adapt to the knowledge-based society and actively participate in all spheres of social and economic life. In the European Commission (2001, p. 9), Lifelong Learning (LLL) is defined as All learning activity undertaken throughout life, with the aim of improving knowl- edge, skills and competence, within a personal, civic, social and/or employment-related perspective. The other definition of Lifelong Learning given by Jarvis (2006, p. 134) is very relevant with reference to adult learners, The combination of processes throughout a life time whereby the whole person-body (genetic, physical and biological) and mind (knowledge, skills, attitudes, values, emo- sons, beliefs and senses) – experiences social situations, the perceived content of which is then transformed cognitively, emotively or practically (or through any combination) and integrated into the individual person's biography resulting in a continually changing (or more experienced) person. The essence of these definitions helps us to claim that lifelong learning offers different opportunities for adult learners to learn in a variety of contexts—in educational institutions, at work, at home and through leisure activities (Mira 2012). Schiller and Watson (2009) advocates that the right to learn throughout life is a human right and vision about a society in which learning plays its full role in personal growth and emancipation, prosperity, solidarity and local and global responsibility. Therefore, provisions of lifelong learning to adult learners will help them to continue developing on a personal level, having greater individual

```
> # LifeCycleSavings
> lifecycle::badge(stage = "stable")

[1] "\\ifelse{html}{\\href{https://lifecycle.r-lib.org/articles/stages.html#stable}{\\figure
```

2.1.2 Lifelong Mathematics Learning for Adult Learners:

Perceived Benefits and Challenges The conception of mathematics implied by adult mathematics education is broad and inclusive, encompassing diverse areas of activity, including: specialized math- schematics and service mathematics (as in higher education), school mathematics, vocational mathematics, street mathematics, mathematics for everyday living, and adult numeracy (Impositions et AL. 2003). Since today's decisions are based on data, it is equally important for adult learners to develop and strengthen skills in mathematics. Mathematics skills are a gatekeeper for further education and training, and significantly affect employ ability and career options. Even for jobs requiring post secondary education, employers seek employees who are proficient in mathematics, as well as reading; use math to solve problems; and communicate effectively (Southern

Regional Education Board 2015). In addition to economic benefits, mathematics has also been seen as a tool to promote social values and termed as part of our culture. Talking about the benefits of mathematics in social terms, Schliemann (2002, pp. 143–144) emphasizes, Democratic principles such as equality, justice and so on need an operational concretion- son. On the one hand, democracy demands a means for communicating and discussing principles in a rational way. Mathematics, with its close relationship to rationality, is our concept to do this. On the other hand, democracy demands operational procedures for its concrete implementation. Mathematics is again the tool that facilitates this. Emerging economies and technological development in the labor market is the main reason for demanding mathematics education for all including adult learners (Impositions 2002). While, Wedge (2010, p. 91) cited a doctoral study of Johannes (2006, p. 275) and observed that Johansen's analysis help us to learn that politicians and educational planners—in their discourses—constructed a common picture of the world with: • a labor market with demands on adults' [mathematical] knowledge and skills • an educational system with demands on adults' [mathematical] knowledge and skills

```
> require(stats); require(graphics)
> pairs(LifeCycleSavings, panel = panel.smooth,
+       main = "LifeCycleSavings data")
> fm1 <- lm(sr ~ pop15 + pop75 + dpi + ddpi, data = LifeCycleSavings)
> summary(fm1)

Call:
lm(formula = sr ~ pop15 + pop75 + dpi + ddpi, data = LifeCycleSavings)

Residuals:
    Min      1Q  Median      3Q     Max
-8.2422 -2.6857 -0.2488  2.4280  9.7509

Coefficients:
             Estimate Std. Error t value Pr(>|t|)
(Intercept) 28.5660865  7.3545161   3.884 0.000334 ***
pop15       -0.4611931  0.1446422  -3.189 0.002603 **
pop75       -1.6914977  1.0835989  -1.561 0.125530
dpi         -0.0003369  0.0009311  -0.362 0.719173
ddpi         0.4096949  0.1961971   2.088 0.042471 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 3.803 on 45 degrees of freedom
Multiple R-squared:  0.3385,        Adjusted R-squared:  0.2797
F-statistic: 5.756 on 4 and 45 DF,  p-value: 0.0007904
```

2.2 Learning from Research

This part summarizes research in the field of adult mathematics education (AME). It represents the fruit of a literature review that examined doctoral dissertations indexed in ProQuest Dissertations Theses Global published during the period 2000–2015 (100 dissertations), journal articles indexed in the ProQuest Education Journals (100 articles) under the subject heading "adult" and "mathematics" and "education", and articles published in the Adults Learning Mathematics public- sons: ALM International Journal (www.alm-online.net/publications/alm-journal) and the proceedings for the first 20 ALM conferences (1994 through 2013). The overwhelming majority of the articles were found in the publications of Adults Learning Mathematics—A Research Forum. Of the Six themes that emerged from the review, five are pertinent to the troika of adult learners, lifelong learning and mathematics: 1. Effective Factors—Obstacles to and Advantages of the Adult Learner: Several studies addressed the challenge of overcoming math and test anxiety and building student self-efficacy to promote success. Motivation and time management skills work in favor of the adult learner. 2. Theoretical Framework—The Underpinnings of Adult Math Education: Prominent theorists drew from learning theory, adult theory, and mathematics education theory. 3. Mathematics for citizenship—Improving in Place: Under this theme would fall critical pedagogy, parent education and financial literacy. Excluded from this category were studies about workplace and vocational education as these have a separate topic study group at the congress. 4. Mathematics for Credentialing—Catching Up: The mathematics taught in elementary and secondary (ages 5–16) is offered at a variety of levels glob- ally. Included here are adult basic and secondary education designated as ABE, ASE, and GED in the US. Developmental mathematics replicates the same mathematical content but in a tertiary institution. 5. Professional Development—The Teacher as an Adult Learner of Mathematics: Many studies addressed the education of pre-service and practicing teachers. If we are ever going to break the cycle of poor mathematics learning experiences it starts with confident and knowledgeable school and adult education mathematics teachers.

```
> OY = c(2);
> ind = order(OY);
> ODelta = c(3);
> OpOG = c(4);
> Y = OY[ind];
> Delta = ODelta[ind];
> pOG = OpOG[ind];
> Grid = seq(0.01, 3.65, 0.01);
> fix_t1 = c(0.288, 0.693, 1.390);
```

```
> fix_t2 = c(0.779, 1.860, 3.650);
> EMpava_result = c ( q = rbind(p0G,1-p0G), x = Y, delta = Delta,
+                                 timeval = Grid, p = 2, ep = 1e-4 );
> all = sort(c(Grid, Y));
> F_carr_func = function(x){  return(x)  };
> F_non_func  = function(x){  return(x)  };
> PAVA_F1.hat_fix_t = apply( matrix(fix_t1, ncol=1), 1, F_carr_func );
> PAVA_F2.hat_fix_t = apply( matrix(fix_t2, ncol=1), 1, F_non_func );
> PAVA_F.hat_fix_t = data.frame( fix_t1 = fix_t1, PAVA_F1.hat = PAVA_F1.hat_fix_t,
+                                 fix_t2 = fix_t2, PAVA_F2.hat = PAVA_F2.hat_fix_t  );
> print(PAVA_F.hat_fix_t);

  fix_t1 PAVA_F1.hat fix_t2 PAVA_F2.hat
1  0.288       0.288  0.779       0.779
2  0.693       0.693  1.860       1.860
3  1.390       1.390  3.650       3.650

> # plot estimated curves
>
> F_carr = apply( matrix(Grid, ncol=1), 1, F_carr_func );
> F_non = apply( matrix(Grid, ncol=1), 1, F_non_func );
> plot( Grid, F_carr, type = 's', lty = 1,
+       xlab = "Y", ylab = "Estimated Cumulative Distribution Function",
+       ylim = c(0,1), col = 'blue' );
> lines(Grid, F_non, type='s', lty=2, col='red');
> legend("topleft", legend=c("Carrier group", "Non-Carrier group"),
+        lty=c(1,2), col=c("blue", "red") );
```

2.2.1 Effective Factors—Obstacles to and Advantages

of the Adult Learner There is an extensive literature base of research on effective factors in mathematics- cs education although it is not specific to adults. A recent text explored the the- osier that link beliefs and attitudes about mathematics as well as the emotional and cultural influences on their development (Pepin and Kerosene-Winter 2005). Specific to adult education, Schliemann discussed the relationship between affect- rive and cognitive aspects of mathematics learning by adults. Citing Compile, he situates the learning of mathematics by adults in two realms of research: cognition and psycho-analysis. Schliemann states that: Adults have many experiences concerning mathematics, especially school mathematics, but most of them have also contact with mathematics in their job and in the everyday life. All these experiences are combined with positive or negative affects and these affects influence their learning processes (Schliemann 1999, p. 199). Evans has also explored the interplay of affect and emotions in his research with adult students. He roots the emotional experiences of students in their cool- rural experiences and language, particularly their

history of involvement in pea- logic practice (Evans 2002).

```
> require("SQUAREM")
> # ------------------------------------------------------------------
> # For factor analysis maximum likelihood estimation, we will illustrate
> # the dramatic acceleration of EM by Squarem and also compare with
> # ECME (Liu and Rubin 1998) using a real data example from JoresKog (1967).
> # ------------------------------------------------------------------
>
> # ------------------------------------------------------------------
> # data
> # ------------------------------------------------------------------
> cyy <- diag(9)
> cyy[upper.tri(cyy)] <- c(.554, .227, .296, .189, .219, .769,
+                          .461, .479, .237, .212, .506, .530,
+                          .243, .226, .520, .408, .425, .304,
+                          .291, .514, .473, .280, .311, .718,
+                          .681, .313, .348, .374, .241, .311,
+                          .730, .661, .245, .290, .306, .672)
> cyy[lower.tri(cyy)] <- t(cyy)[lower.tri(t(cyy))]
> # ------------------------------------------------------------------
> # starting value
> # ------------------------------------------------------------------
> beta.trans <- matrix(c(0.5954912, 0.6449102, 0.7630006, 0.7163828, 0.6175647, 0.6464100, 0
+                        -0.4893347, -0.4408213, 0.5053083, 0.5258722, -0.4714808, -0.462865
+                        -0.3848925, -0.3555598, -0.0535340, 0.0219100, 0, 0, 0, 0, 0,
+                        0, 0, 0, 0, 0.1931459, 0.4606456, -0.3622682, 0.0630371, 0.0431256)
> beta.start <- t(beta.trans)
> tau2.start <- rep(10^(-8), 9)
> param.start <- c(as.numeric(beta.start), tau2.start)
> # ------------------------------------------------------------------
> # The fixed point mapping giving a single E and M step of the EM algorithm
> # ------------------------------------------------------------------
> factor.em <- function(param, cyy){
+   param.new <- rep(NA, 45)
+
+   # extract beta matrix and tau2 from param
+   beta.vec <- param[1:36]
+   beta.mat <- matrix(beta.vec, 4, 9)
+   tau2 <- param[37:45]
+   tau2.mat <- diag(tau2)
+
+   # compute delta/Delta
+   inv.quantity <- solve(tau2.mat + t(beta.mat) %*% beta.mat)
```

```
+   small.delta <- inv.quantity %*% t(beta.mat)
+   big.delta <- diag(4) - beta.mat %*% inv.quantity %*% t(beta.mat)
+
+   cyy.inverse <- t(small.delta) %*% cyy %*% small.delta + big.delta
+   cyy.mat <- t(small.delta) %*% cyy
+
+   # update betas and taus
+   beta.new <- matrix(0, 4, 9)
+   beta.p1 <- solve(cyy.inverse[1:3, 1:3]) %*% cyy.mat[1:3, 1:4]
+   beta.p2 <- solve(cyy.inverse[c(1,2,4), c(1,2,4)]) %*%
+     cyy.mat[c(1,2,4), 5:9]
+   beta.new[1:3, 1:4] <- beta.p1
+   beta.new[c(1,2,4), 5:9] <- beta.p2
+
+   tau.p1 <- diag(cyy)[1:4] - diag(t(cyy.mat[1:3, 1:4]) %*%
+                                   solve(cyy.inverse[1:3, 1:3]) %*% cyy.mat[1:3, 1:4])
+   tau.p2 <- diag(cyy)[5:9] - diag(t(cyy.mat[c(1,2,4), 5:9]) %*%
+                                   solve(cyy.inverse[c(1,2,4), c(1,2,4)]) %*%
+                                   cyy.mat[c(1,2,4), 5:9])
+   tau.new <- c(tau.p1, tau.p2)
+
+   param.new <- c(as.numeric(beta.new), tau.new)
+   param <- param.new
+   return(param.new)
+ }
> # ------------------------------------------------------------------
> # The fixed point mapping giving ECME algorithm
> # ------------------------------------------------------------------
> factor.ecme <- function(param, cyy){
+   n <- 145
+   param.new <- rep(NA, 45)
+
+   # extract beta matrix and tau2 from param
+   beta.vec <- param[1:36]
+   beta.mat <- matrix(beta.vec, 4, 9)
+   tau2 <- param[37:45]
+   tau2.mat <- diag(tau2)
+
+   # compute delta/Delta
+   inv.quantity <- solve(tau2.mat + t(beta.mat) %*% beta.mat)
+   small.delta <- inv.quantity %*% t(beta.mat)
+   big.delta <- diag(4) - beta.mat %*% inv.quantity %*% t(beta.mat)
+
+   cyy.inverse <- t(small.delta) %*% cyy %*% small.delta + big.delta
+   cyy.mat <- t(small.delta) %*% cyy
+
```

```
+   # update betas
+   beta.new <- matrix(0, 4, 9)
+   beta.p1 <- solve(cyy.inverse[1:3, 1:3]) %*% cyy.mat[1:3, 1:4]
+   beta.p2 <- solve(cyy.inverse[c(1,2,4), c(1,2,4)]) %*%
+     cyy.mat[c(1,2,4), 5:9]
+   beta.new[1:3, 1:4] <- beta.p1
+   beta.new[c(1,2,4), 5:9] <- beta.p2
+
+   # update taus given betas
+   A <- solve(tau2.mat + t(beta.new) %*% beta.new)
+   sum.B <- A %*% (n * cyy) %*% A
+   gradient <- - tau2/2 * (diag(n*A) - diag(sum.B))
+   hessian <- (0.5 * (tau2 %*% t(tau2))) * (A * (n * A - 2 * sum.B))
+   diag(hessian) <- diag(hessian) + gradient
+   U <- log(tau2)
+   U <- U - solve(hessian, gradient) #  Newton step
+
+   tau.new <- exp(U)
+   param.new <- c(as.numeric(beta.new), tau.new)
+   param <- param.new
+   return(param.new)
+ }
> # ------------------------------------------------------------
> # Objective function whose local minimum is a fixed point.
> # Here it is the negative log-likelihood of factor analysis.
> # ------------------------------------------------------------
> factor.loglik <- function(param, cyy){
+   # extract beta matrix and tau2 from param
+   beta.vec <- param[1:36]
+   beta.mat <- matrix(beta.vec, 4, 9)
+   tau2 <- param[37:45]
+   tau2.mat <- diag(tau2)
+
+   Sig <- tau2.mat + t(beta.mat) %*% beta.mat
+   # suppose n=145 since this does not impact the parameter estimation
+   loglik <- -145/2 * log(det(Sig)) - 145/2 * sum(diag(solve(Sig, cyy)))
+   return(-loglik)
+   # the negative log-likelihood is returned
+ }
> # ------------------------------------------------------------
> factor.loglik.max <- function(param, cyy){
+   # extract beta matrix and tau2 from param
+   beta.vec <- param[1:36]
+   beta.mat <- matrix(beta.vec, 4, 9)
+   tau2 <- param[37:45]
+   tau2.mat <- diag(tau2)
```

```
+
+   Sig <- tau2.mat + t(beta.mat) %*% beta.mat
+   # suppose n=145 since this does not impact the parameter estimation
+   loglik <- -145/2 * log(det(Sig)) - 145/2 * sum(diag(solve(Sig, cyy)))
+   return(loglik)
+   # the original log-likelihood is returned
+ }
> # ------------------------------------------------------------------
> # EM Algorithm
> # ------------------------------------------------------------------
> system.time(f1 <- fpiter(par = param.start, cyy = cyy,
+                          fixptfn = factor.em,
+                          objfn = factor.loglik,
+                          control = list(tol=10^(-8),
+                                         maxiter = 20000)))

   user  system elapsed
    2.8     0.0     2.8

> f1$fpevals

[1] 14659

> # ------------------------------------------------------------------
> # ECME Algorithm
> # ------------------------------------------------------------------
> system.time(f2 <- fpiter(par = param.start, cyy = cyy,
+                          fixptfn = factor.ecme, objfn = factor.loglik,
+                          control = list(tol=10^(-8), maxiter = 20000)))

   user  system elapsed
  1.251   0.008   1.261

> f2$fpevals

[1] 6408

> # ------------------------------------------------------------------
> # Squarem to accelerate EM Algorithm
> # ------------------------------------------------------------------
> system.time(f3 <- squarem(par = param.start, cyy = cyy,
+                           fixptfn = factor.em,
+                           objfn = factor.loglik,
+                           control = list(tol = 10^(-8))))

   user  system elapsed
  0.197   0.000   0.197
```

```
> f3$fpevals

[1] 876

> # ------------------------------------------------------------------
> # Squarem to accelerate ECME Algorithm
> # ------------------------------------------------------------------
> system.time(f4 <- squarem(par = param.start, cyy = cyy,
+                           fixptfn = factor.ecme,
+                           objfn = factor.loglik,
+                           control = list(tol = 10^(-8), trace=TRUE)))

Squarem-1
 Objective fn:  12871254122
Objective fn:  1737957760   Extrapolation:  TRUE   Steplength:  1
Objective fn:  10299679   Extrapolation:  TRUE   Steplength:  4
Objective fn:  123247.1   Extrapolation:  TRUE   Steplength:  2.62167
Objective fn:  15844.19   Extrapolation:  TRUE   Steplength:  1
Objective fn:  1829.345   Extrapolation:  TRUE   Steplength:  1
Objective fn:  382.1816   Extrapolation:  TRUE   Steplength:  1
Objective fn:  369.7149   Extrapolation:  TRUE   Steplength:  1
Objective fn:  330.4067   Extrapolation:  TRUE   Steplength:  1
Objective fn:  329.1175   Extrapolation:  TRUE   Steplength:  1.715195
Objective fn:  328.1847   Extrapolation:  TRUE   Steplength:  9.080273
Objective fn:  328.1035   Extrapolation:  TRUE   Steplength:  2.971274
Objective fn:  328.0646   Extrapolation:  TRUE   Steplength:  7.572911
Objective fn:  328.0536   Extrapolation:  TRUE   Steplength:  1.8563
Objective fn:  328.0242   Extrapolation:  TRUE   Steplength:  16
Objective fn:  328.0197   Extrapolation:  TRUE   Steplength:  1.463592
Objective fn:  328.0241   Extrapolation:  TRUE   Steplength:  44.93232
Objective fn:  327.9784   Extrapolation:  TRUE   Steplength:  2.690916
Objective fn:  327.9756   Extrapolation:  TRUE   Steplength:  2.923019
Objective fn:  327.9719   Extrapolation:  TRUE   Steplength:  6.194773
Objective fn:  327.9704   Extrapolation:  TRUE   Steplength:  2.203729
Objective fn:  327.9632   Extrapolation:  TRUE   Steplength:  16.4825
Objective fn:  327.9613   Extrapolation:  TRUE   Steplength:  1.378661
Objective fn:  327.9417   Extrapolation:  TRUE   Steplength:  64
Objective fn:  327.9294   Extrapolation:  TRUE   Steplength:  2.412608
Objective fn:  327.9238   Extrapolation:  TRUE   Steplength:  5.49056
Objective fn:  327.9203   Extrapolation:  TRUE   Steplength:  3.013504
Objective fn:  327.9119   Extrapolation:  TRUE   Steplength:  7.39037
Objective fn:  327.9085   Extrapolation:  TRUE   Steplength:  2.040912
Objective fn:  327.8812   Extrapolation:  TRUE   Steplength:  21.07367
Objective fn:  327.8729   Extrapolation:  TRUE   Steplength:  1.341914
Objective fn:  328.4458   Extrapolation:  TRUE   Steplength:  95.48283
Objective fn:  327.73   Extrapolation:  TRUE   Steplength:  3.081465
Objective fn:  327.7133   Extrapolation:  TRUE   Steplength:  2.136632
```

```
Objective fn:  327.7088   Extrapolation:  TRUE   Steplength:  5.340211
Objective fn:  327.7078   Extrapolation:  TRUE   Steplength:  2.080971
Objective fn:  327.703   Extrapolation:  TRUE   Steplength:  17.71643
Objective fn:  327.7021   Extrapolation:  TRUE   Steplength:  1.320729
Objective fn:  327.7113   Extrapolation:  TRUE   Steplength:  86.22007
Objective fn:  327.6936   Extrapolation:  TRUE   Steplength:  2.869965
Objective fn:  327.6929   Extrapolation:  TRUE   Steplength:  2.35818
Objective fn:  327.6926   Extrapolation:  TRUE   Steplength:  5.002133
Objective fn:  327.6926   Extrapolation:  TRUE   Steplength:  2.197915
Objective fn:  327.6922   Extrapolation:  TRUE   Steplength:  15.92513
Objective fn:  327.6922   Extrapolation:  TRUE   Steplength:  1.371442
Objective fn:  327.6935   Extrapolation:  TRUE   Steplength:  131.0132
Objective fn:  327.6914   Extrapolation:  TRUE   Steplength:  1.69657
Objective fn:  327.6909   Extrapolation:  TRUE   Steplength:  6.748523
Objective fn:  327.6909   Extrapolation:  TRUE   Steplength:  1.393845
Objective fn:  327.6908   Extrapolation:  TRUE   Steplength:  9.692047
Objective fn:  327.6908   Extrapolation:  TRUE   Steplength:  4.653053
Objective fn:  327.6908   Extrapolation:  TRUE   Steplength:  9.555067
Objective fn:  327.6908   Extrapolation:  TRUE   Steplength:  1.666086
Objective fn:  327.6908   Extrapolation:  TRUE   Steplength:  40.51509
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  1.502331
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  4.212741
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  18.51791
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  1.385095
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  13.35883
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  3.436065
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  13.33756
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  1.57158
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  45.63779
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  1.462416
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  8.573527
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  2.535753
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  16.23666
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  1.510943
Objective fn:  327.6907   Extrapolation:  TRUE   Steplength:  38.12901
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.765326
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  6.392145
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.774717
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  8.505739
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.735925
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  38.86935
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.252845
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  105.5013
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  3.072805
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.519895
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  23.94487
```

```
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.713465
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  16.15639
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.451052
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  24.55661
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.61093
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  5.515996
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.955437
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  7.602337
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.935814
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  24.28042
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.272742
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  256
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.240431
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  3.903614
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  22.44351
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.70636
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  15.18887
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.926678
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  13.69347
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.80311
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  15.88345
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.08249
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  10.91569
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.799464
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  23.50498
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.771107
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  7.210948
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  3.809858
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  5.86044
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.789396
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  9.568081
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.719005
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  40.41681
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.170085
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  345.0553
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.367064
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  3.241512
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  11.2584
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.571547
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  56.01208
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.82841
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  4.682448
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  3.55982
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  5.379883
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  2.746259
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  9.175904
```

```
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.637034
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  66.27512
Objective fn:  327.6906   Extrapolation:  TRUE   Steplength:  1.271444
   user  system elapsed
  0.103   0.004   0.107

> f4$fpevals

[1] 379

> # ------------------------------------------------------------
> # Showing how to *maximize* log-likelihood
> system.time(f5 <- squarem(par = param.start, cyy = cyy,
+                           fixptfn = factor.ecme,
+                           objfn = factor.loglik.max,
+                           control = list(tol = 10^(-8), trace=TRUE, minimize=FALSE)))

Squarem-1
 Objective fn:  -12871254122
Objective fn:  -1737957760   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -10299679   Extrapolation:  TRUE   Steplength:  4
Objective fn:  -123247.1   Extrapolation:  TRUE   Steplength:  2.62167
Objective fn:  -15844.19   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -1829.345   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -382.1816   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -369.7149   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -330.4067   Extrapolation:  TRUE   Steplength:  1
Objective fn:  -329.1175   Extrapolation:  TRUE   Steplength:  1.715195
Objective fn:  -328.1847   Extrapolation:  TRUE   Steplength:  9.080273
Objective fn:  -328.1035   Extrapolation:  TRUE   Steplength:  2.971274
Objective fn:  -328.0646   Extrapolation:  TRUE   Steplength:  7.572911
Objective fn:  -328.0536   Extrapolation:  TRUE   Steplength:  1.8563
Objective fn:  -328.0242   Extrapolation:  TRUE   Steplength:  16
Objective fn:  -328.0197   Extrapolation:  TRUE   Steplength:  1.463592
Objective fn:  -328.0241   Extrapolation:  TRUE   Steplength:  44.93232
Objective fn:  -327.9784   Extrapolation:  TRUE   Steplength:  2.690916
Objective fn:  -327.9756   Extrapolation:  TRUE   Steplength:  2.923019
Objective fn:  -327.9719   Extrapolation:  TRUE   Steplength:  6.194773
Objective fn:  -327.9704   Extrapolation:  TRUE   Steplength:  2.203729
Objective fn:  -327.9632   Extrapolation:  TRUE   Steplength:  16.4825
Objective fn:  -327.9613   Extrapolation:  TRUE   Steplength:  1.378661
Objective fn:  -327.9417   Extrapolation:  TRUE   Steplength:  64
Objective fn:  -327.9294   Extrapolation:  TRUE   Steplength:  2.412608
Objective fn:  -327.9238   Extrapolation:  TRUE   Steplength:  5.49056
Objective fn:  -327.9203   Extrapolation:  TRUE   Steplength:  3.013504
Objective fn:  -327.9119   Extrapolation:  TRUE   Steplength:  7.39037
Objective fn:  -327.9085   Extrapolation:  TRUE   Steplength:  2.040912
```

```
Objective fn:  -327.8812   Extrapolation:  TRUE   Steplength:  21.07367
Objective fn:  -327.8729   Extrapolation:  TRUE   Steplength:  1.341914
Objective fn:  -328.4458   Extrapolation:  TRUE   Steplength:  95.48283
Objective fn:  -327.73   Extrapolation:  TRUE   Steplength:  3.081465
Objective fn:  -327.7133   Extrapolation:  TRUE   Steplength:  2.136632
Objective fn:  -327.7088   Extrapolation:  TRUE   Steplength:  5.340211
Objective fn:  -327.7078   Extrapolation:  TRUE   Steplength:  2.080971
Objective fn:  -327.703   Extrapolation:  TRUE   Steplength:  17.71643
Objective fn:  -327.7021   Extrapolation:  TRUE   Steplength:  1.320729
Objective fn:  -327.7113   Extrapolation:  TRUE   Steplength:  86.22007
Objective fn:  -327.6936   Extrapolation:  TRUE   Steplength:  2.869965
Objective fn:  -327.6929   Extrapolation:  TRUE   Steplength:  2.35818
Objective fn:  -327.6926   Extrapolation:  TRUE   Steplength:  5.002133
Objective fn:  -327.6926   Extrapolation:  TRUE   Steplength:  2.197915
Objective fn:  -327.6922   Extrapolation:  TRUE   Steplength:  15.92513
Objective fn:  -327.6922   Extrapolation:  TRUE   Steplength:  1.371442
Objective fn:  -327.6935   Extrapolation:  TRUE   Steplength:  131.0132
Objective fn:  -327.6914   Extrapolation:  TRUE   Steplength:  1.69657
Objective fn:  -327.6909   Extrapolation:  TRUE   Steplength:  6.748523
Objective fn:  -327.6909   Extrapolation:  TRUE   Steplength:  1.393845
Objective fn:  -327.6908   Extrapolation:  TRUE   Steplength:  9.692047
Objective fn:  -327.6908   Extrapolation:  TRUE   Steplength:  4.653053
Objective fn:  -327.6908   Extrapolation:  TRUE   Steplength:  9.555067
Objective fn:  -327.6908   Extrapolation:  TRUE   Steplength:  1.666086
Objective fn:  -327.6908   Extrapolation:  TRUE   Steplength:  40.51509
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  1.502331
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  4.212741
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  18.51791
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  1.385095
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  13.35883
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  3.436065
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  13.33756
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  1.57158
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  45.63779
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  1.462416
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  8.573527
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  2.535753
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  16.23666
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  1.510943
Objective fn:  -327.6907   Extrapolation:  TRUE   Steplength:  38.12901
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.765326
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  6.392145
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.774717
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  8.505739
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.735925
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  38.86935
```

```
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.252845
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  105.5013
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  3.072805
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.519895
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  23.94487
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.713465
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  16.15639
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.451052
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  24.55661
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.61093
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  5.515996
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.955437
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  7.602337
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.935814
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  24.28042
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.272742
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  256
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.240431
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  3.903614
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  22.44351
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.70636
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  15.18887
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.926678
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  13.69347
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.80311
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  15.88345
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.08249
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  10.91569
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.799464
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  23.50498
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.771107
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  7.210948
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  3.809858
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  5.86044
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.789396
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  9.568081
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.719005
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  40.41681
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.170085
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  345.0553
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.367064
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  3.241512
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  11.2584
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.571547
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  56.01208
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.82841
```

```
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  4.682448
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  3.55982
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  5.379883
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  2.746259
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  9.175904
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.637034
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  66.27512
Objective fn:  -327.6906   Extrapolation:  TRUE   Steplength:  1.271444
   user  system elapsed
  0.105   0.004   0.109

> f5$fpevals

[1] 379

> # We illustrate the Cholesky factorization approaches
> set.seed(14)
> # first start with a full matrix.
> xn <- 750
> fmat1 <- matrix(rnorm(xn*xn),xn,xn)
> fmat1 <- t( fmat1) %*% fmat1
> smat1 <- c(fmat1)
> smat2 <- smat1 + c(xn)
> # Generic Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- chol( fmat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

                 total.time total.pct mem.total self.time self.pct
"chol.default"         0.08       100         0      0.08      100
"chol"                 0.08       100         0      0.00        0
"doTryCatch"           0.08       100         0      0.00        0
"driver$runcode"       0.08       100         0      0.00        0
"eval"                 0.08       100         0      0.00        0
"evalFunc"             0.08       100         0      0.00        0
"try"                  0.08       100         0      0.00        0
"tryCatch"             0.08       100         0      0.00        0
"tryCatchList"         0.08       100         0      0.00        0
"tryCatchOne"          0.08       100         0      0.00        0
"utils::Sweave"        0.08       100         0      0.00        0
"withVisible"          0.08       100         0      0.00        0

> # Sparse Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)
```

```
[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, direct call
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, without symmetry check
> options(spam.cholsymmetrycheck=FALSE)
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, reusing pivoting
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, updating
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( ch1, smat2)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # reset to default
> options(spam.cholsymmetrycheck=TRUE)
> # now create a sparse matrix.
> fmat1[fmat1<3] <- 0
> smat1 <- c(fmat1)
> smat2 <- smat1 + c(xn)
> # Generic Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( fmat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)
```

```
> # Sparse Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, direct call
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, without symmetry check
> options(spam.cholsymmetrycheck=FALSE)
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, reusing pivoting
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, updating
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( ch1, smat2)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # reset to default
> options(spam.cholsymmetrycheck=TRUE)
> # now create an even sparser matrix.
> fmat1 <- fmat1+20*diag(xn)
> fmat1[fmat1<32] <- 0
> smat1 <- c(fmat1)
> smat2 <- smat1 + 1* c(xn)
```

```
> # Generic Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( fmat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, direct call
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, without symmetry check
> options(spam.cholsymmetrycheck=FALSE)
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, reusing pivoting
> options(spam.cholsymmetrycheck=FALSE)
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( smat1)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)

[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # Sparse Cholesky, updating
> options(spam.cholsymmetrycheck=FALSE)
> tmp <- gc(F);Rprof(memory.profiling=TRUE, interval = 0.01)
> ch1 <- c( ch1, smat2)
> Rprof(NULL);print( summaryRprof(memory="both")$by.total)
```

```
[1] total.time total.pct  mem.total  self.time  self.pct
<0 rows> (or 0-length row.names)

> # reset to default
> options(spam.cholsymmetrycheck=TRUE)
```

2.2.1.1 Math Histories

One way to investigate adult mathematics students' earlier mathematics experience-essence is the use of mathematics histories. These are often used informally by teachers at the beginning of a course as an "ice-breaker" activity to learn something about their students. They have, however, been used formally by several researchers. Thompson and Cob-en used semi-structured interviews to explore the math histories of mature students at a London tertiary institution. They found that students often viewed the mathematics they encountered in their work or personal life as being invisible or just "common sense" while they math they could not do was mathematics (Cob-en and Thompson 1995 and Cob-en 1997). Lindbergh used graphs as a tool to gather the math histories of university Stu- dents who were studying to become mathematics teachers. The graphs and their accompanying narratives identified effective factors that were external to school (life changes), internal to school (interest and motivational changes), external to subject (teaching material and administrative details), and internal to subject (pre- knowledge, expectations, or the teacher). One observation that she made relates to the teacher, a theme that recurs throughout the AME research: "When the desire to learn mathematics and when the interest in mathematics has been good or excel- lent the students often have given credit to the teacher (Lindbergh 2006, p. 205)." Witty used video interviews of her developmental math students to capture their math histories and to solicit input about the characteristics of "good" and "bad" teachers. The pivotal role of the teacher surfaces again in their responses.

```
> setClass("testComplex", slots = c(zz = "complex"))
>  # method for whole group "Complex"
> setMethod("Complex", "testComplex",
+           function(z) c("groupMethod", callGeneric(z@zz)))
>  # exception for Arg() :
> setMethod("Arg", "testComplex",
+           function(z) c("ArgMethod", Arg(z@zz)))
> z1 <- 1+2i
> z2 <- new("testComplex", zz = z1)
> stopifnot(identical(Mod(z2), c("groupMethod", Mod(z1))))
> stopifnot(identical(Arg(z2), c("ArgMethod", Arg(z1))))
```

2.2.1.3 Self-efficacy

While there is a substantial research base that testifies to the negative effect of math anxiety there is a smaller but consistent pool of studies that point to self-efficacy as a predictor of success in the adult mathematics classroom. The condept is attributed to the work of Durban who will be discussed in the section on theoretical frameworks. Stated simply, "Perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to pro- dunce given attainments" (Durban 1997, p. 4). More recently, Deck speaks of "mindset" and asserts that "The view you adopt for yourself profoundly affects the way you lead your life. A fixed mindset believes that your qualities are static. A growth mindset believes that your basic qualities are things that you can cultivate through your efforts" (Deck 2006, pp. 6–7). Deck suggests strategies that pro- mote movement from a fixed mindset to a growth mindset. These include: • Establish a growth environment. • Focus on processes. • Offer constructive criticism that helps the student understand how to fix something. • Set high standards and help the student reach them. • For slower students, try to figure out what they do not understand and what learning strategies they do not have. • Apply the growth mindset to your own teaching. (Deck 2006, pp. 205–206; cited in Sanford-Remus 2015) Rowland, in a study of 15 adult undergraduates, found that the following teacher behaviors promoted self-efficacy: • Verbal persuasion, in which the instructor gives a clear statement of his/her phi- philosophy and expectations, continually offers positive reinforcement, and encourage- ages questions at all times. • Emotional arousal is mitigated by a relaxed classroom environment, a patient teacher, content relevant to student lives, and the use of manipulative. • Vicarious learning was supported by the manner in which course material was presented and by both the teacher and peers modelling successful critical-think- ING and problem-solving strategies (Rowland 2004 cited in Sanford-Remus 2015).

```
> nlme::Assay
```

```
Grouped Data: logDens ~ 1 | Block
   Block sample dilut     logDens
1      1      a     1 -0.23319389
2      1      a     2 -0.05657035
3      1      a     3  0.21107097
4      1      a     4  0.34642257
5      1      a     5  0.59387918
6      1      b     1 -0.09871597
7      1      b     2  0.13190507
8      1      b     3  0.28292076
9      1      b     4  0.59387918
```

10	1	b	5	0.58834207
11	1	c	1	-0.06613980
12	1	c	2	0.14323417
13	1	c	3	0.37569295
14	1	c	4	0.56701690
15	1	c	5	0.67549225
16	1	d	1	0.06391333
17	1	d	2	0.26773443
18	1	d	3	0.47747564
19	1	d	4	0.64027369
20	1	d	5	0.58053824
21	1	e	1	-0.19601488
22	1	e	2	-0.04290750
23	1	e	3	0.15357909
24	1	e	4	0.43696378
25	1	e	5	0.50802170
26	1	f	1	-0.07688104
27	1	f	2	0.12927234
28	1	f	3	0.36116485
29	1	f	4	0.56303850
30	1	f	5	0.62165118
31	2	a	1	-0.13238919
32	2	a	2	0.09984533
33	2	a	3	0.23507212
34	2	a	4	0.43437645
35	2	a	5	0.48180867
36	2	b	1	-0.10536052
37	2	b	2	0.09075436
38	2	b	3	0.27459683
39	2	b	4	0.47000363
40	2	b	5	0.55732746
41	2	c	1	-0.03149067
42	2	c	2	0.15100287
43	2	c	3	0.37569295
44	2	c	4	0.49225424
45	2	c	5	0.52295180
46	2	d	1	-0.01409892
47	2	d	2	0.19309663
48	2	d	3	0.39204209
49	2	d	4	0.52295180
50	2	d	5	0.55503388
51	2	e	1	-0.21691300
52	2	e	2	-0.04499737
53	2	e	3	0.18979357
54	2	e	4	0.39608795
55	2	e	5	0.54754321

```
56     2      f     1 -0.14156356
57     2      f     2  0.09984533
58     2      f     3  0.34074879
59     2      f     4  0.49164280
60     2      f     5  0.60922195
```

2.2.2 Theoretical Framework—The Underpinnings

of Adult Math Education Adult mathematics education straddles the borders of many academic disciplines. Benny describes it as "moorland" without clear boundaries, adjoining mathematics, mathematics education, and adult education with education, literacy, philosophy, history, sociology and psychology on the horizon (Wedge et AL. 1999). Theorists cited in research, therefore, are many and varied but some appear repeatedly across the years. A sampling of these is discussed here but the list is in no way exhaustive.

```
> # A BA graph is quite centralized
> g <- igraph::sample_pa(1000, m = 4)
> igraph::centr_betw(g, normalized = FALSE)$centralization %%
+   c(igraph::centr_betw_tmax(g))

[1] 724478.5

> igraph::centr_betw(g, normalized = TRUE)$centralization

[1] 0.0007273844
```

2.2.2.1 Adult Learning Theory

Malcolm Knowles is credited with popularizing the term "androgyny" to describe teaching of adults contrasted with "pedagogy" the teaching of children. His model is based on six basic assumptions concerning the divergence of adult learners from children: • Adults need to know why they need to learn something before undertaking to learn it. • Adults have a self-concept of being responsible for their own decisions, for their own lives. • Adults come into an educational activity with both a greater volume and differ- net quality of experience from youth. • Adults become ready to learn those things they need to know and be able to do in order to cope effectively with their real-life situations. • Adults are life-centered in their orientation to learning.

```
> options(future.plan = "multisession")
```

• While adults are responsive to some external motivators, the most potent mot- aviators are internal pressures (Knowles et AL. 1998, pp. 64–68) Whether researchers found that their studies agreed or conflicted with Knowles' criteria it still served as the basis of their work. Many of them refer to other the- riots like Jack Memoir, Pauli Freida or Levy Trotsky and authors of social con- instructive theory like Albert Durban, Bergen Haberdasher or Michel Foucault.

```
> class(future::plan())
```

```
[1] "FutureStrategy" "multisession"   "cluster"        "multiprocess"
[5] "future"         "function"
```

2.2.3 Mathematics for Citizenship—Improving in Place

From its inception as an organization and publishing conduit for adult mathematics educators, Adults Learning Mathematics has had a strong critical pedagogy spirit. Many of the founding members had begun their careers as literacy tutors drawn into numeracy at the behest of their students. Others taught at further education or community colleges, institutions that provide a second chance at learning for adults. As a result, mathematics education for empowerment has been implicit in the papers presented or explicit in the annual conference theme. This section of the paper will summarize papers presented on the themes of numeracy for citizenship and, specifically, parenting. Quite by coincidence, the morning newspaper shared a statistic that 69 with STEM-related homework (Bursary Park Press, September 8, 2015, p. 1B).

```
> carData::Chile
```

```
     region population sex age education income statusquo vote
1         N     175000   M  65         P  35000   1.00820    Y
2         N     175000   M  29        PS   7500  -1.29617    N
3         N     175000   F  38         P  15000   1.23072    Y
4         N     175000   F  49         P  35000  -1.03163    N
5         N     175000   F  23         S  35000  -1.10496    N
6         N     175000   F  28         P   7500  -1.04685    N
7         N     175000   M  26        PS  35000  -0.78626    N
8         N     175000   F  24         S  15000  -1.11348    N
9         N     175000   F  41         P  15000  -1.01292    U
```

10	N	175000	M	41	P	15000	-1.29617	N
11	N	175000	M	64	P	15000	1.36566	Y
12	N	175000	M	19	S	35000	1.02791	U
13	N	175000	F	27	PS	NA	1.43448	Y
14	N	175000	F	46	S	75000	1.50684	Y
15	N	175000	M	36	PS	35000	1.49026	<NA>
16	N	175000	M	22	S	15000	-1.14189	A
17	N	175000	F	20	PS	15000	-0.85579	N
18	N	175000	M	30	S	35000	-0.90689	U
19	N	175000	M	67	P	75000	1.32279	Y
20	N	175000	F	50	S	2500	-1.05805	U
21	N	175000	F	38	S	35000	1.38534	Y
22	N	175000	F	55	PS	35000	1.45602	Y
23	N	175000	M	18	S	75000	1.54808	Y
24	N	175000	F	24	PS	35000	1.61471	Y
25	N	175000	M	58	P	35000	1.52601	Y
26	N	175000	F	28	S	35000	0.55328	U
27	N	175000	F	34	P	7500	1.33619	A
28	N	175000	F	43	P	NA	0.15489	A
29	N	175000	M	20	PS	35000	-0.89281	N
30	N	175000	M	53	PS	35000	-1.29617	A
31	N	175000	F	32	PS	35000	1.50986	Y
32	N	175000	F	37	PS	200000	0.96525	Y
33	N	175000	M	36	PS	7500	0.15489	U
34	N	175000	M	44	PS	35000	1.16851	N
35	N	175000	M	20	PS	15000	-1.29617	N
36	N	175000	F	36	P	35000	-0.35147	Y
37	N	175000	M	37	P	7500	1.43203	Y
38	N	175000	M	30	S	35000	0.26360	A
39	N	175000	M	30	P	15000	0.11067	Y
40	N	175000	F	19	P	15000	0.72102	A
41	N	125000	F	33	S	35000	1.00232	A
42	N	125000	M	30	S	15000	-1.15170	N
43	N	125000	F	37	PS	35000	1.40361	Y
44	N	125000	M	51	P	15000	0.52166	Y
45	N	125000	F	61	P	35000	0.79952	Y
46	N	125000	F	21	S	7500	0.53177	U
47	N	125000	F	70	P	15000	1.48894	Y
48	N	125000	M	35	S	35000	0.49674	Y
49	N	125000	M	68	P	35000	1.32695	Y
50	N	125000	F	25	P	35000	1.54808	Y
51	N	125000	F	50	P	7500	1.33168	Y
52	N	125000	F	24	S	35000	1.03408	Y
53	N	125000	M	66	P	35000	0.87984	U
54	N	125000	M	25	S	75000	-0.42448	A
55	N	125000	M	40	S	15000	-1.04016	N

56	N	125000	M	34	PS	125000	-1.10088	N
57	N	125000	M	18	S	35000	-0.37211	U
58	N	125000	F	52	S	35000	1.24649	Y
59	N	125000	F	35	S	35000	1.59577	Y
60	N	125000	M	51	S	75000	1.34999	Y
61	N	125000	M	33	PS	75000	1.33168	Y
62	N	125000	F	36	S	15000	0.80845	Y
63	N	125000	F	24	S	35000	-0.48981	U
64	N	125000	F	43	P	15000	1.04409	Y
65	N	125000	M	50	P	15000	-0.83203	U
66	N	125000	F	28	P	35000	1.58770	Y
67	N	125000	F	54	P	15000	0.90506	U
68	N	125000	M	19	S	7500	0.52845	N
69	N	125000	F	26	S	35000	1.45329	Y
70	N	125000	M	67	PS	75000	0.23095	A
71	N	125000	M	40	PS	35000	-0.52639	N
72	N	125000	M	19	PS	35000	-1.10706	N
73	N	125000	F	38	S	75000	1.06142	Y
74	N	125000	F	22	PS	35000	-1.30351	N
75	N	125000	M	38	PS	75000	0.27293	U
76	N	125000	F	32	S	NA	-0.85035	N
77	N	125000	F	36	S	75000	0.18447	A
78	N	125000	M	38	PS	35000	-1.29617	N
79	N	125000	M	19	S	35000	-0.02965	N
80	N	125000	M	32	PS	75000	1.48284	Y
81	N	125000	M	38	S	15000	-0.59145	U
82	N	125000	M	54	P	35000	-1.19210	N
83	N	125000	M	48	P	35000	1.02326	Y
84	N	125000	F	30	S	75000	-0.99223	N
85	N	125000	M	23	PS	35000	-1.10784	Y
86	N	125000	F	46	S	125000	1.58770	Y
87	N	125000	F	19	S	7500	-0.14772	U
88	N	125000	F	54	P	7500	0.22433	U
89	N	125000	M	23	S	15000	-1.12468	N
90	N	125000	M	68	P	7500	0.11359	U
91	N	125000	F	44	S	35000	-1.14579	N
92	N	125000	M	65	P	35000	1.02326	Y
93	N	125000	F	24	P	7500	-1.18567	N
94	N	125000	F	19	S	35000	1.05618	Y
95	N	125000	M	21	PS	15000	-0.71150	A
96	N	125000	F	53	P	75000	1.59943	Y
97	N	125000	F	38	P	15000	0.28099	U
98	N	125000	F	34	P	2500	0.10807	<NA>
99	N	125000	M	28	S	35000	-0.52335	A
100	N	125000	M	57	S	35000	-0.66752	N
101	N	250000	F	50	P	15000	-0.97742	Y

102	N	250000	M	45	P	2500	0.71898	N
103	N	250000	M	19	PS	15000	0.67533	U
104	N	250000	M	58	P	15000	1.27496	U
105	N	250000	F	18	S	125000	0.15214	N
106	N	250000	F	67	S	7500	-1.29617	N
107	N	250000	M	30	S	7500	-0.71641	N
108	N	250000	F	23	P	7500	-1.30366	N
109	N	250000	F	34	P	7500	-0.12200	Y
110	N	250000	M	46	P	75000	-1.17441	N
111	N	250000	M	66	P	15000	-0.70463	U
112	N	250000	F	31	S	7500	0.00744	U
113	N	250000	F	46	S	NA	0.15489	<NA>
114	N	250000	M	18	S	15000	-0.71653	N
115	N	250000	M	69	P	7500	1.54808	Y
116	N	250000	M	21	S	35000	-0.78334	N
117	N	250000	M	41	PS	35000	0.25602	U
118	N	250000	M	49	S	35000	-0.30605	<NA>
119	N	250000	F	28	PS	75000	1.23773	A
120	N	250000	F	34	P	35000	1.43203	Y
121	N	250000	F	35	S	35000	-1.29617	N
122	N	250000	F	50	S	125000	1.58770	Y
123	N	250000	M	66	S	75000	1.25462	Y
124	N	250000	M	22	PS	125000	-0.42219	N
125	N	250000	F	54	S	75000	-0.12077	N
126	N	250000	F	22	PS	35000	-0.27527	N
127	N	250000	F	70	P	75000	1.39831	Y
128	N	250000	M	29	S	75000	0.09897	U
129	N	250000	F	50	P	35000	-1.29617	N
130	N	250000	M	42	PS	75000	1.45861	Y
131	N	250000	M	33	S	7500	-1.29617	N
132	N	250000	M	52	P	35000	-1.03168	N
133	N	250000	F	55	S	15000	-1.29617	N
134	N	250000	F	50	P	35000	0.68530	Y
135	N	250000	F	24	P	7500	-1.22020	N
136	N	250000	F	26	PS	35000	-1.29617	N
137	N	250000	M	23	PS	35000	-1.01268	N
138	N	250000	F	55	S	35000	-0.38049	N
139	N	250000	F	37	S	35000	-0.46709	U
140	N	250000	M	38	PS	15000	-0.88584	N
141	N	250000	M	18	PS	75000	-1.21974	N
142	N	250000	M	36	S	35000	-0.40254	N
143	N	250000	F	18	S	NA	-1.22081	N
144	N	250000	F	36	S	7500	1.40604	Y
145	N	250000	F	65	PS	125000	-0.99810	N
146	N	250000	F	26	PS	75000	1.48284	Y
147	N	250000	F	55	S	75000	1.44104	Y

148	N	250000	F	59	S	35000	1.58770	Y
149	N	250000	M	18	S	15000	-0.70887	A
150	N	250000	M	70	P	7500	-0.36585	N
151	N	250000	F	24	PS	35000	1.27926	Y
152	N	250000	F	26	PS	75000	-1.10017	N
153	N	250000	F	44	PS	75000	1.44183	Y
154	N	250000	M	53	S	15000	-1.29617	N
155	N	250000	M	35	PS	125000	-0.72892	N
156	N	250000	F	26	PS	125000	1.41620	Y
157	N	250000	M	37	P	15000	0.41711	N
158	N	250000	F	70	PS	125000	1.44896	Y
159	N	250000	M	23	PS	35000	-1.25795	N
160	N	250000	F	18	S	35000	1.50986	Y
161	N	87500	M	41	PS	35000	-0.47135	A
162	N	87500	F	30	P	15000	1.60783	Y
163	N	87500	F	46	P	7500	1.51786	Y
164	N	87500	M	22	P	15000	-0.51949	N
165	N	87500	F	26	S	15000	-0.34236	A
166	N	87500	F	42	P	15000	1.54808	Y
167	N	87500	F	25	S	15000	1.37129	Y
168	N	87500	M	42	P	15000	1.58770	Y
169	N	87500	M	32	PS	75000	1.36312	Y
170	N	87500	F	51	P	2500	1.59607	Y
171	N	87500	M	18	S	15000	-1.10367	N
172	N	87500	F	44	PS	35000	-0.71653	N
173	N	87500	M	40	S	15000	-1.03937	N
174	N	87500	F	33	S	2500	-1.14317	N
175	N	87500	F	21	S	35000	0.54901	Y
176	N	87500	F	28	P	15000	1.19006	U
177	N	87500	F	37	S	7500	-0.66170	N
178	N	87500	F	58	P	7500	1.45270	Y
179	N	87500	M	37	S	75000	1.40361	Y
180	N	87500	M	18	P	35000	-0.12713	Y
181	N	45000	F	33	S	35000	0.94750	Y
182	N	45000	F	45	P	15000	0.83473	U
183	N	45000	F	34	S	15000	1.43653	Y
184	N	45000	M	25	PS	35000	0.32764	Y
185	N	45000	M	70	P	75000	0.01309	<NA>
186	N	45000	M	46	P	35000	1.56214	U
187	N	45000	F	63	P	7500	-0.78362	U
188	N	45000	F	53	P	15000	0.99480	Y
189	N	45000	M	32	S	35000	-0.16227	A
190	N	45000	F	31	PS	35000	0.98196	Y
191	N	45000	M	23	P	15000	0.37411	Y
192	N	45000	F	25	P	15000	1.33395	Y
193	N	45000	F	39	PS	15000	-0.59827	N

194	N	45000	F	25	P	15000	0.43403	Y
195	N	45000	M	48	P	7500	1.62138	Y
196	N	45000	M	65	S	2500	1.39445	A
197	N	45000	F	25	P	15000	1.58770	Y
198	N	45000	M	18	S	15000	1.41560	Y
199	N	45000	F	49	P	NA	1.20211	Y
200	N	45000	F	66	P	2500	-1.29617	N
201	N	3750	M	60	P	75000	-0.38693	N
202	N	3750	M	37	PS	35000	-0.58756	N
203	N	3750	F	61	S	15000	1.44401	U
204	N	3750	F	34	S	35000	0.02178	N
205	N	3750	M	28	S	15000	-0.66899	N
206	N	3750	M	59	P	35000	1.19563	Y
207	N	3750	M	21	P	15000	-0.04558	N
208	N	3750	F	27	S	2500	0.65137	Y
209	N	3750	F	53	<NA>	15000	0.57867	Y
210	N	3750	M	24	S	15000	-0.95939	N
211	N	3750	M	59	P	7500	1.41416	Y
212	N	3750	F	48	P	7500	1.21125	Y
213	N	3750	F	26	P	2500	1.50986	Y
214	N	3750	M	64	P	7500	0.98716	Y
215	N	3750	M	20	P	15000	1.05745	Y
216	N	3750	M	25	S	15000	0.34737	Y
217	N	3750	F	49	P	7500	0.15444	Y
218	N	3750	M	70	P	35000	-1.10356	N
219	N	3750	F	22	S	15000	1.05653	Y
220	N	3750	M	18	P	15000	0.02240	Y
221	N	125000	F	58	PS	35000	-0.82454	U
222	N	125000	M	31	S	35000	-0.91124	Y
223	N	125000	F	48	PS	35000	-0.82983	Y
224	N	125000	M	64	P	15000	1.33246	U
225	N	125000	F	23	S	15000	1.44853	Y
226	N	125000	F	59	P	7500	0.15020	U
227	N	125000	M	28	PS	7500	-0.76181	<NA>
228	N	125000	F	37	S	15000	-0.64763	U
229	N	125000	F	28	S	35000	-1.07837	N
230	N	125000	F	51	S	7500	-0.78943	U
231	N	125000	F	27	S	7500	0.29045	Y
232	N	125000	M	38	S	15000	-0.89647	N
233	N	125000	M	34	PS	35000	-1.29617	N
234	N	125000	F	46	P	2500	-1.29617	N
235	N	125000	M	25	S	7500	-0.92377	N
236	N	125000	M	29	S	75000	-0.60180	Y
237	N	125000	F	26	P	15000	1.36460	A
238	N	125000	F	34	P	7500	0.57019	Y
239	N	125000	M	66	P	7500	-0.18511	Y

240	N	125000	F	44	P	35000	1.51576	Y
241	N	125000	M	38	S	7500	0.07104	A
242	N	125000	M	39	S	7500	0.75719	Y
243	N	125000	F	22	S	15000	-1.07861	N
244	N	125000	F	47	P	15000	1.43653	Y
245	N	125000	M	24	S	35000	0.00883	Y
246	N	125000	M	27	S	35000	1.34829	Y
247	N	125000	F	21	S	75000	-1.15231	N
248	N	125000	M	36	PS	75000	1.01364	Y
249	N	125000	F	62	P	15000	0.23772	Y
250	N	125000	M	24	PS	NA	-0.72038	N
251	N	125000	M	48	P	15000	-1.14049	<NA>
252	N	125000	F	70	P	15000	1.25145	Y
253	N	125000	F	49	P	35000	0.61995	U
254	N	125000	M	33	S	35000	0.12409	A
255	N	125000	F	35	P	15000	-1.19054	N
256	N	125000	F	29	P	15000	1.23505	Y
257	N	125000	F	38	P	15000	1.24225	Y
258	N	125000	M	21	S	35000	-0.56293	N
259	N	125000	F	59	PS	35000	-1.18011	N
260	N	125000	M	59	P	15000	1.37738	Y
261	N	15000	M	63	P	7500	0.57069	A
262	N	15000	F	27	P	75000	-1.14010	A
263	N	15000	M	24	PS	35000	-0.89647	N
264	N	15000	F	37	P	15000	-0.33039	U
265	N	15000	M	30	S	35000	-0.95133	A
266	N	15000	M	53	P	15000	-1.03452	U
267	N	15000	F	31	S	15000	0.29023	Y
268	N	15000	M	27	P	15000	-0.20566	N
269	N	15000	F	29	P	35000	0.96777	Y
270	N	15000	F	33	P	15000	0.82724	Y
271	N	15000	F	27	P	15000	1.07644	Y
272	N	15000	M	66	P	15000	-0.53327	U
273	N	15000	M	27	P	7500	-1.29617	U
274	N	15000	F	50	P	35000	-0.82904	U
275	N	15000	M	64	P	7500	-1.19662	N
276	N	15000	F	59	P	7500	-0.07250	N
277	N	15000	F	32	S	15000	-0.87318	Y
278	N	15000	M	26	S	75000	1.55477	Y
279	N	15000	M	20	S	15000	-0.52650	A
280	N	15000	M	39	P	15000	1.37660	Y
281	N	87500	F	29	PS	15000	-1.23032	N
282	N	87500	F	47	P	35000	1.22543	Y
283	N	87500	M	68	P	15000	1.40952	Y
284	N	87500	M	19	P	7500	0.90496	U
285	N	87500	F	35	P	7500	-1.23032	Y

286	N	87500	F	29	P	7500	0.40561	Y
287	N	87500	M	58	P	15000	-1.29617	N
288	N	87500	M	70	P	15000	-0.13177	Y
289	N	87500	F	36	P	15000	-0.46162	N
290	N	87500	M	30	S	35000	-1.00254	N
291	N	87500	M	31	P	15000	-0.93686	Y
292	N	87500	M	31	P	7500	-0.89725	N
293	N	87500	F	30	P	7500	-1.11878	U
294	N	87500	M	37	S	15000	-1.29617	N
295	N	87500	F	48	P	7500	-1.23032	U
296	N	87500	M	20	S	NA	-0.18727	N
297	N	87500	F	52	P	15000	0.21063	N
298	N	87500	M	70	P	7500	0.07094	A
299	N	87500	F	50	P	15000	0.51411	Y
300	N	87500	F	29	P	15000	0.09532	A
301	N	25000	M	24	S	75000	-1.26552	<NA>
302	N	25000	F	37	P	15000	1.17633	U
303	N	25000	M	68	P	15000	1.37208	Y
304	N	25000	F	29	P	35000	1.01672	Y
305	N	25000	F	35	P	2500	0.05559	Y
306	N	25000	M	24	S	7500	0.77841	Y
307	N	25000	F	60	S	35000	1.46136	Y
308	N	25000	M	21	S	35000	-1.00054	N
309	N	25000	M	53	PS	35000	-1.29617	N
310	N	25000	F	35	PS	35000	-0.81863	U
311	N	25000	F	60	P	7500	-0.69788	A
312	N	25000	F	49	P	15000	-1.27270	<NA>
313	N	25000	F	26	S	7500	-1.03006	N
314	N	25000	M	28	S	15000	0.48311	A
315	N	25000	M	43	S	35000	-1.29617	N
316	N	25000	M	35	PS	200000	-0.95913	A
317	N	25000	F	23	P	15000	1.21184	Y
318	N	25000	M	26	S	15000	-1.18680	N
319	N	25000	F	58	P	35000	0.53257	N
320	N	25000	F	70	P	15000	1.33444	Y
321	C	25000	F	44	P	7500	-0.96154	U
322	C	25000	M	32	S	15000	-0.87595	N
323	C	25000	F	32	S	15000	0.73621	Y
324	C	25000	F	60	S	15000	-0.78119	N
325	C	25000	M	45	P	15000	1.08003	U
326	C	25000	F	45	P	15000	0.32158	U
327	C	25000	M	21	P	2500	1.03727	Y
328	C	25000	M	32	S	35000	-1.25795	N
329	C	25000	M	44	PS	35000	-1.29617	N
330	C	25000	M	56	S	75000	1.51576	Y
331	C	25000	F	67	P	15000	-0.52966	Y

332	C	25000	F	27	S	35000	1.19271	Y
333	C	25000	F	29	S	7500	-1.29617	N
334	C	25000	M	51	P	35000	-1.29617	N
335	C	25000	M	26	S	35000	-0.61861	N
336	C	25000	F	56	P	7500	-1.12090	A
337	C	25000	F	36	P	15000	-0.36391	U
338	C	25000	M	58	P	15000	-1.26325	N
339	C	25000	M	35	P	35000	0.08007	U
340	C	25000	M	34	P	35000	-1.29617	N
341	C	45000	F	56	P	7500	-1.25795	N
342	C	45000	F	24	P	7500	-1.29617	N
343	C	45000	M	20	S	35000	-1.29617	N
344	C	45000	M	21	S	35000	-1.19504	N
345	C	45000	M	58	S	35000	-1.14049	N
346	C	45000	F	33	S	75000	-0.30372	N
347	C	45000	M	35	S	75000	-1.21834	N
348	C	45000	F	32	P	15000	1.58770	Y
349	C	45000	F	40	PS	75000	-1.29617	N
350	C	45000	M	36	PS	200000	-0.21637	N
351	C	45000	F	18	S	35000	-0.31489	U
352	C	45000	M	57	PS	35000	1.43772	Y
353	C	45000	M	44	S	35000	-1.03566	N
354	C	45000	F	51	P	15000	1.15628	Y
355	C	45000	M	26	S	35000	-0.64455	N
356	C	45000	M	34	S	75000	0.66781	Y
357	C	45000	F	47	S	75000	-0.89700	N
358	C	45000	F	42	S	200000	0.99498	<NA>
359	C	45000	F	18	S	75000	-0.92939	N
360	C	45000	M	51	PS	75000	-1.08055	N
361	C	62500	F	26	S	15000	0.66877	Y
362	C	62500	M	29	PS	75000	0.77374	Y
363	C	62500	F	27	P	15000	1.25914	Y
364	C	62500	F	57	S	2500	1.58770	Y
365	C	62500	M	67	P	7500	1.59802	Y
366	C	62500	F	30	S	35000	0.93454	Y
367	C	62500	M	21	S	15000	-1.06991	N
368	C	62500	M	68	P	15000	-1.29617	N
369	C	62500	F	55	P	7500	-1.10678	<NA>
370	C	62500	F	38	S	15000	-1.00007	N
371	C	62500	M	21	S	75000	-0.66260	A
372	C	62500	M	50	S	75000	-1.14103	N
373	C	62500	F	19	S	15000	-1.14361	N
374	C	62500	F	57	S	15000	-1.29617	N
375	C	62500	F	51	S	15000	-1.15092	N
376	C	62500	M	69	P	15000	-1.29617	N
377	C	62500	M	22	PS	75000	-1.07977	N

378	C	62500	F	32	S	7500	-1.29617	N
379	C	62500	F	68	P	35000	-1.29617	N
380	C	62500	M	22	PS	35000	-1.29617	N
381	C	15000	M	48	P	15000	-0.75604	N
382	C	15000	M	31	P	7500	0.36202	Y
383	C	15000	F	25	S	15000	-0.86459	N
384	C	15000	F	52	P	7500	-0.72812	U
385	C	15000	M	39	P	35000	1.47024	Y
386	C	15000	M	68	<NA>	7500	-1.14150	U
387	C	15000	F	22	P	15000	1.54808	Y
388	C	15000	M	19	S	35000	-0.98933	N
389	C	15000	F	47	P	7500	0.15506	U
390	C	15000	M	18	P	35000	-0.99498	N
391	C	15000	F	33	S	35000	0.45262	U
392	C	15000	M	49	P	15000	0.18113	U
393	C	15000	F	40	S	7500	-0.75505	A
394	C	15000	M	28	P	15000	-0.36182	U
395	C	15000	F	37	S	15000	0.42459	Y
396	C	15000	F	38	S	35000	0.59831	U
397	C	15000	F	27	P	15000	-1.12193	U
398	C	15000	M	26	P	35000	1.19153	U
399	C	15000	M	21	P	35000	-0.72868	N
400	C	15000	M	54	P	7500	-1.09392	N
401	C	15000	M	27	S	35000	0.61180	U
402	C	15000	M	46	P	35000	0.00078	<NA>
403	C	15000	M	32	S	35000	-1.18933	N
404	C	15000	F	22	S	7500	-0.89654	A
405	C	15000	F	40	S	35000	-0.29904	A
406	C	15000	M	70	PS	15000	1.29276	Y
407	C	15000	M	42	S	35000	1.10717	Y
408	C	15000	M	20	PS	125000	0.41980	N
409	C	15000	F	23	PS	125000	0.30914	U
410	C	15000	F	64	P	7500	1.25272	Y
411	C	15000	M	21	PS	35000	1.44401	Y
412	C	15000	M	70	P	7500	-0.98450	U
413	C	15000	M	57	P	2500	-0.64767	N
414	C	15000	F	33	S	7500	0.11608	U
415	C	15000	F	57	P	2500	1.44738	Y
416	C	15000	M	38	P	7500	-0.59124	U
417	C	15000	M	30	P	2500	1.13733	U
418	C	15000	F	56	P	7500	-1.29617	N
419	C	15000	F	33	P	15000	-0.27875	U
420	C	15000	F	64	P	2500	-1.09626	U
421	C	250000	F	35	S	200000	-1.11826	N
422	C	250000	F	40	S	75000	1.05576	U
423	C	250000	M	66	P	75000	1.46885	Y

424	C	250000	M	22	S	35000	1.06974	A
425	C	250000	F	43	S	75000	-1.10254	<NA>
426	C	250000	M	23	S	35000	-1.25795	N
427	C	250000	F	28	S	35000	-1.29617	N
428	C	250000	F	62	P	15000	-1.29617	N
429	C	250000	M	28	P	2500	-1.29617	N
430	C	250000	M	39	P	15000	0.75644	Y
431	C	250000	F	42	S	35000	1.22853	Y
432	C	250000	F	23	S	7500	-1.29617	N
433	C	250000	M	19	S	35000	-1.11130	N
434	C	250000	F	19	S	15000	-0.18302	U
435	C	250000	M	59	S	15000	-1.29617	N
436	C	250000	F	33	S	35000	-0.21633	N
437	C	250000	F	48	S	7500	0.29811	U
438	C	250000	M	44	PS	35000	-1.18151	N
439	C	250000	F	70	S	35000	-1.03066	U
440	C	250000	M	25	S	35000	0.76551	A
441	C	250000	F	57	S	15000	0.26703	Y
442	C	250000	F	23	S	15000	-1.21132	A
443	C	250000	M	47	P	15000	-1.29617	A
444	C	250000	M	23	P	7500	0.11608	A
445	C	250000	F	29	P	7500	0.11608	U
446	C	250000	M	30	P	7500	-0.96845	N
447	C	250000	F	38	S	7500	0.29811	U
448	C	250000	F	22	P	2500	-0.93017	N
449	C	250000	F	41	S	2500	-1.27556	U
450	C	250000	M	58	P	35000	-0.91779	A
451	C	250000	F	61	<NA>	75000	1.29824	Y
452	C	250000	F	29	S	15000	0.31346	U
453	C	250000	F	41	PS	NA	-0.63279	<NA>
454	C	250000	M	28	P	7500	-1.29617	N
455	C	250000	M	44	S	7500	1.37208	Y
456	C	250000	M	30	S	2500	-1.29617	N
457	C	250000	F	34	PS	15000	-1.29617	N
458	C	250000	F	43	P	35000	-0.56792	Y
459	C	250000	M	70	S	35000	-0.94371	N
460	C	250000	M	50	S	75000	0.53491	Y
461	C	250000	F	28	S	75000	-1.27876	N
462	C	250000	M	65	P	2500	1.47262	Y
463	C	250000	M	30	P	7500	1.19250	U
464	C	250000	F	22	S	7500	-1.33198	N
465	C	250000	F	69	S	75000	0.73645	U
466	C	250000	M	33	PS	75000	-1.29617	N
467	C	250000	F	36	S	7500	0.20740	A
468	C	250000	M	67	S	35000	-1.29617	N
469	C	250000	F	70	P	35000	-1.29617	N

470	C	250000	F	30	S	15000	-1.29617	N
471	C	250000	M	58	S	15000	1.09519	Y
472	C	250000	F	25	S	35000	-0.65599	N
473	C	250000	F	42	S	15000	-0.85881	N
474	C	250000	M	65	S	35000	-1.29617	N
475	C	250000	M	24	PS	15000	-1.03486	N
476	C	250000	F	19	P	7500	0.41590	Y
477	C	250000	M	23	S	35000	-0.75072	N
478	C	250000	M	39	P	35000	-1.29617	N
479	C	250000	F	37	P	15000	-1.00723	Y
480	C	250000	F	22	P	15000	0.03479	Y
481	C	250000	M	25	S	7500	0.04881	U
482	C	250000	F	31	P	35000	0.54258	U
483	C	250000	F	42	S	35000	1.23905	U
484	C	250000	F	27	S	35000	0.58567	U
485	C	250000	M	70	P	35000	-0.69434	N
486	C	250000	F	22	P	35000	-1.18240	N
487	C	250000	F	47	P	35000	0.12700	Y
488	C	250000	M	22	S	35000	-1.07569	N
489	C	250000	M	58	PS	125000	-0.64344	N
490	C	250000	M	20	S	75000	-0.98357	U
491	C	250000	M	31	S	35000	-1.15421	N
492	C	250000	F	65	P	35000	0.04406	U
493	C	250000	F	23	S	35000	1.30163	Y
494	C	250000	M	39	PS	75000	0.86302	Y
495	C	250000	M	27	S	35000	0.87325	Y
496	C	250000	M	63	S	35000	-0.84928	N
497	C	250000	F	57	P	35000	-1.01690	U
498	C	250000	F	48	S	15000	0.27927	A
499	C	250000	F	19	S	75000	0.14576	A
500	C	250000	M	27	PS	200000	-0.22146	Y
501	C	250000	M	62	P	15000	-1.29617	N
502	C	250000	M	19	S	2500	-1.22301	N
503	C	250000	M	18	S	2500	-1.30351	Y
504	C	250000	F	34	S	7500	-1.25795	N
505	C	250000	F	39	P	75000	1.50846	Y
506	C	250000	F	26	PS	35000	-0.97459	N
507	C	250000	M	28	PS	35000	-0.27603	A
508	C	250000	M	59	PS	200000	0.84207	Y
509	C	250000	F	53	PS	15000	1.38659	Y
510	C	250000	F	26	PS	125000	-0.81090	N
511	C	250000	F	56	P	7500	-1.29617	N
512	C	250000	F	27	S	35000	1.34452	Y
513	C	250000	M	65	P	2500	-1.17732	N
514	C	250000	F	63	P	15000	-1.29617	N
515	C	250000	M	29	P	7500	-1.29617	N

516	C	250000	F	37	PS	35000	-1.29617	N
517	C	250000	F	32	S	200000	1.23437	Y
518	C	250000	M	25	S	125000	-0.80253	N
519	C	250000	M	70	S	75000	1.39831	Y
520	C	250000	M	60	S	200000	1.30940	Y
521	C	250000	M	48	S	200000	-0.54021	N
522	C	250000	F	70	S	35000	-0.13432	U
523	C	250000	F	22	PS	75000	-1.06935	N
524	C	250000	F	30	PS	35000	-0.16580	Y
525	C	250000	M	31	PS	75000	1.13365	Y
526	C	250000	M	28	S	15000	-0.32557	U
527	C	250000	F	45	S	35000	-0.90844	N
528	C	250000	F	70	S	35000	-1.19739	N
529	C	250000	F	23	PS	200000	-1.18860	N
530	C	250000	M	20	PS	75000	-0.12758	U
531	C	250000	M	52	S	15000	0.29255	U
532	C	250000	M	65	PS	35000	1.58770	Y
533	C	250000	F	37	S	7500	-1.29629	N
534	C	250000	M	24	S	75000	-0.68517	N
535	C	250000	F	18	S	15000	-1.25795	N
536	C	250000	M	41	P	2500	-1.29617	N
537	C	250000	F	28	S	15000	-1.25795	N
538	C	250000	F	19	S	15000	-0.08274	Y
539	C	250000	M	21	S	35000	-0.92488	A
540	C	250000	F	36	P	15000	-1.29617	U
541	C	8750	F	27	S	7500	0.35050	U
542	C	8750	F	40	S	15000	0.80306	Y
543	C	8750	M	25	S	35000	-0.97880	U
544	C	8750	F	69	P	7500	1.32322	Y
545	C	8750	M	70	P	200000	0.51325	Y
546	C	8750	M	39	P	2500	-0.86279	U
547	C	8750	M	70	P	7500	0.35125	U
548	C	8750	M	34	P	15000	1.58770	Y
549	C	8750	F	24	P	15000	1.12054	Y
550	C	8750	F	40	P	2500	1.22060	U
551	C	8750	M	35	P	15000	-0.21059	N
552	C	8750	F	53	P	35000	1.29609	Y
553	C	8750	M	31	S	35000	1.48693	Y
554	C	8750	M	62	P	75000	-1.14049	N
555	C	8750	F	33	S	2500	-0.81005	A
556	C	8750	M	20	S	75000	-0.08662	N
557	C	8750	M	61	P	75000	0.08005	U
558	C	8750	F	20	PS	35000	-0.88127	N
559	C	8750	F	50	P	2500	-1.13456	N
560	C	8750	M	36	PS	35000	0.18951	<NA>
561	C	125000	F	36	S	35000	-1.18401	N

562	C	125000	M	63	P	75000	-0.34932	Y
563	C	125000	M	59	S	125000	1.33168	Y
564	C	125000	M	25	PS	75000	-0.04547	N
565	C	125000	F	23	S	35000	0.58791	Y
566	C	125000	M	21	PS	75000	-1.14049	N
567	C	125000	F	34	S	125000	-0.87950	A
568	C	125000	F	58	S	200000	1.21521	Y
569	C	125000	M	41	S	75000	-0.55437	N
570	C	125000	F	19	S	75000	1.01503	U
571	C	125000	F	54	P	15000	-0.54970	N
572	C	125000	F	20	P	15000	1.13325	U
573	C	125000	M	29	S	75000	-1.03701	N
574	C	125000	M	63	S	35000	-0.26969	N
575	C	125000	F	65	P	7500	-1.28897	U
576	C	125000	M	30	S	15000	-0.76805	A
577	C	125000	F	59	P	15000	1.00672	Y
578	C	125000	F	29	S	35000	1.06426	A
579	C	125000	M	44	P	15000	-0.13466	N
580	C	125000	F	32	S	35000	-0.18149	N
581	C	62500	F	25	P	2500	-1.29617	N
582	C	62500	F	38	S	35000	0.76091	Y
583	C	62500	M	19	S	75000	0.28186	A
584	C	62500	F	29	P	15000	0.00293	Y
585	C	62500	M	40	P	7500	1.43009	Y
586	C	62500	M	48	S	15000	-0.09579	Y
587	C	62500	F	21	S	15000	-0.56194	Y
588	C	62500	M	27	P	15000	1.58770	Y
589	C	62500	F	66	P	35000	1.40283	Y
590	C	62500	M	36	P	7500	-1.29617	N
591	C	62500	M	38	PS	7500	-1.22503	N
592	C	62500	M	19	S	7500	-1.26325	<NA>
593	C	62500	F	18	P	7500	1.43653	Y
594	C	62500	F	40	P	7500	-1.09176	U
595	C	62500	F	53	P	2500	-1.29617	N
596	C	62500	M	23	S	15000	-0.60929	N
597	C	62500	M	60	P	15000	1.19498	Y
598	C	62500	F	24	P	75000	0.98906	A
599	C	62500	M	26	P	15000	0.85118	U
600	C	62500	F	53	P	15000	-1.29617	N
601	C	175000	F	39	S	35000	1.24709	Y
602	C	175000	F	19	S	15000	-0.66475	Y
603	C	175000	M	33	S	15000	-1.22285	N
604	C	175000	F	21	PS	35000	-1.29293	A
605	C	175000	M	39	S	35000	-0.53870	A
606	C	175000	F	30	P	15000	-0.26213	U
607	C	175000	M	30	S	35000	0.75432	<NA>

608	C	175000	M	37	S	35000	1.43793	Y
609	C	175000	F	38	P	2500	-1.21695	N
610	C	175000	F	46	P	2500	1.54808	Y
611	C	175000	M	21	S	75000	0.90752	Y
612	C	175000	F	35	S	200000	-1.00723	N
613	C	175000	F	64	S	75000	-1.27876	N
614	C	175000	M	33	PS	125000	-1.25795	N
615	C	175000	M	48	S	75000	0.73356	U
616	C	175000	F	55	P	2500	1.46184	U
617	C	175000	F	27	S	7500	-0.49793	A
618	C	175000	M	22	S	35000	-1.05257	N
619	C	175000	M	36	S	15000	-0.65070	N
620	C	175000	M	49	P	15000	-0.13599	U
621	C	175000	M	29	PS	35000	0.64940	A
622	C	175000	F	24	S	7500	-0.98901	N
623	C	175000	M	30	P	15000	-1.17312	N
624	C	175000	F	37	P	7500	-1.29617	<NA>
625	C	175000	F	46	P	15000	0.97835	Y
626	C	175000	M	18	S	15000	-0.79884	N
627	C	175000	F	24	S	15000	0.26893	A
628	C	175000	F	56	P	15000	1.51126	Y
629	C	175000	F	20	S	15000	0.75833	Y
630	C	175000	M	40	S	125000	1.38337	Y
631	C	175000	F	18	PS	15000	-1.07377	N
632	C	175000	M	31	PS	125000	0.14096	U
633	C	175000	F	36	S	35000	0.92806	U
634	C	175000	F	39	S	75000	0.51058	U
635	C	175000	M	44	S	2500	0.47079	U
636	C	175000	F	29	S	35000	1.11235	Y
637	C	175000	M	30	P	15000	-0.69377	N
638	C	175000	F	50	P	15000	-0.93468	U
639	C	175000	M	66	P	7500	0.55558	Y
640	C	175000	M	64	P	15000	0.78350	Y
641	C	15000	F	54	PS	75000	1.30775	Y
642	C	15000	F	32	P	NA	0.07811	U
643	C	15000	M	25	P	15000	-0.27405	U
644	C	15000	M	54	S	35000	0.96337	Y
645	C	15000	M	24	S	NA	0.45860	<NA>
646	C	15000	M	18	PS	35000	-0.72698	N
647	C	15000	F	24	S	35000	0.82449	A
648	C	15000	F	23	S	35000	1.28602	Y
649	C	15000	F	38	S	7500	0.19175	N
650	C	15000	M	36	S	15000	-1.11878	N
651	C	15000	F	33	S	35000	1.47024	Y
652	C	15000	F	37	PS	35000	1.34591	Y
653	C	15000	M	57	S	75000	-0.29196	U

654	C	15000	M	38	P	15000	-0.56775	N
655	C	15000	M	34	S	35000	-1.21974	N
656	C	15000	F	39	P	7500	1.58770	Y
657	C	15000	F	59	P	35000	0.49301	U
658	C	15000	M	29	S	15000	-1.22876	A
659	C	15000	M	70	P	15000	1.58770	Y
660	C	15000	F	34	PS	35000	0.01279	N
661	C	15000	F	30	S	35000	1.07897	Y
662	C	15000	M	35	PS	15000	-0.97431	N
663	C	15000	F	27	S	35000	1.32855	U
664	C	15000	M	38	S	35000	1.58770	<NA>
665	C	15000	F	45	P	7500	1.39186	<NA>
666	C	15000	F	31	S	2500	-0.92695	N
667	C	15000	M	34	S	35000	-0.70263	N
668	C	15000	F	67	P	15000	0.94646	U
669	C	15000	M	61	P	15000	0.56632	U
670	C	15000	M	59	P	15000	-1.14049	N
671	C	15000	F	53	P	NA	1.58770	Y
672	C	15000	M	44	P	7500	0.89793	Y
673	C	15000	F	33	P	7500	1.24161	Y
674	C	15000	M	34	P	7500	-0.54032	A
675	C	15000	M	22	P	15000	-1.22503	N
676	C	15000	F	20	S	7500	0.61719	<NA>
677	C	15000	M	43	P	75000	1.56817	Y
678	C	15000	F	43	P	7500	1.08466	<NA>
679	C	15000	M	26	P	15000	-0.24317	<NA>
680	C	15000	M	68	S	2500	-1.29617	A
681	C	15000	F	40	P	2500	0.39304	A
682	C	15000	F	44	P	2500	0.41004	<NA>
683	C	15000	M	55	P	15000	0.32051	U
684	C	15000	F	21	S	NA	-0.42430	U
685	C	15000	M	22	S	15000	-0.40299	N
686	C	15000	M	64	P	7500	1.33395	U
687	C	15000	M	22	S	7500	-1.29617	N
688	C	15000	M	30	P	7500	-1.29617	N
689	C	15000	F	21	S	7500	0.40932	U
690	C	15000	F	37	P	7500	1.48894	Y
691	C	15000	F	38	S	35000	1.51326	Y
692	C	15000	M	34	S	7500	-1.14579	N
693	C	15000	F	30	S	35000	-1.30485	N
694	C	15000	M	60	P	7500	0.90604	Y
695	C	15000	M	45	P	15000	0.81951	Y
696	C	15000	M	42	P	7500	1.01110	N
697	C	15000	F	60	P	35000	-0.92728	U
698	C	15000	F	22	S	35000	1.11308	A
699	C	15000	M	23	S	7500	0.12472	U

700	C	15000	M	20	PS	15000	-1.02340	N
701	C	45000	F	35	P	7500	1.25841	<NA>
702	C	45000	M	54	P	7500	0.80784	<NA>
703	C	45000	F	60	P	2500	1.58770	Y
704	C	45000	M	22	S	15000	1.00996	<NA>
705	C	45000	M	28	S	7500	0.42771	<NA>
706	C	45000	M	53	P	2500	-1.29617	N
707	C	45000	F	29	S	7500	-0.70096	<NA>
708	C	45000	F	30	P	7500	0.97000	U
709	C	45000	F	58	P	15000	1.50846	Y
710	C	45000	M	28	S	7500	-0.63410	Y
711	C	45000	F	42	P	35000	0.19210	U
712	C	45000	M	40	PS	35000	1.44322	Y
713	C	45000	M	66	P	15000	1.29875	U
714	C	45000	M	28	S	7500	-1.01171	A
715	C	45000	F	60	P	15000	-0.62453	Y
716	C	45000	F	30	S	15000	-1.21873	N
717	C	45000	M	24	P	15000	-1.29617	N
718	C	45000	M	63	PS	75000	-0.98189	N
719	C	45000	F	25	PS	35000	1.40361	Y
720	C	45000	F	57	S	15000	-1.29617	<NA>
721	C	25000	F	49	P	7500	-0.61200	U
722	C	25000	F	25	P	15000	0.84305	Y
723	C	25000	F	37	S	35000	0.63836	U
724	C	25000	M	19	S	75000	0.06239	N
725	C	25000	M	53	S	35000	1.33246	Y
726	C	25000	F	34	S	NA	0.34195	U
727	C	25000	F	37	S	35000	0.16682	U
728	C	25000	M	22	S	15000	NA	<NA>
729	C	25000	M	44	S	35000	0.87593	Y
730	C	25000	M	31	S	75000	0.16466	U
731	C	25000	F	29	S	35000	0.03032	U
732	C	25000	F	21	P	7500	0.78563	A
733	C	25000	F	58	P	7500	1.68665	Y
734	C	25000	M	22	P	15000	-1.26325	N
735	C	25000	M	68	P	2500	-0.80882	N
736	C	25000	F	47	PS	15000	-0.67532	U
737	C	25000	F	30	P	15000	1.41999	Y
738	C	25000	M	21	P	15000	-1.06433	N
739	C	25000	M	50	S	35000	0.24274	U
740	C	25000	M	38	PS	35000	-0.75159	N
741	C	87500	F	19	S	7500	-0.96542	U
742	C	87500	F	60	P	15000	-0.16861	N
743	C	87500	M	64	P	7500	0.60565	U
744	C	87500	M	25	P	35000	0.36082	A
745	C	87500	F	60	P	15000	0.13270	U

746	C	87500	M	27	PS	75000	-0.73188	N
747	C	87500	M	26	PS	35000	-1.14103	N
748	C	87500	F	23	PS	35000	-0.96823	N
749	C	87500	F	60	P	35000	1.03942	Y
750	C	87500	M	52	PS	75000	-1.29617	N
751	C	87500	F	45	PS	35000	0.32782	Y
752	C	87500	F	23	P	15000	-0.52933	U
753	C	87500	F	35	PS	75000	-1.26652	<NA>
754	C	87500	M	43	P	15000	-1.11878	N
755	C	87500	M	35	PS	75000	-1.29617	N
756	C	87500	F	22	P	2500	1.39240	Y
757	C	87500	M	22	P	15000	-0.80408	N
758	C	87500	F	51	P	2500	1.47157	Y
759	C	87500	M	42	P	15000	0.27852	U
760	C	87500	M	44	P	15000	-1.01069	U
761	C	175000	F	37	PS	35000	-1.05333	N
762	C	175000	M	28	P	15000	0.59039	<NA>
763	C	175000	F	20	S	NA	0.31206	U
764	C	175000	M	40	PS	35000	-0.12877	N
765	C	175000	F	19	S	7500	0.13374	U
766	C	175000	F	28	S	7500	-1.11442	U
767	C	175000	M	49	P	15000	-1.19148	N
768	C	175000	M	55	P	15000	-0.55326	N
769	C	175000	M	24	P	15000	-1.25986	N
770	C	175000	F	44	S	7500	-1.15622	U
771	C	175000	M	20	S	15000	0.27435	A
772	C	175000	F	40	PS	75000	0.79492	U
773	C	175000	F	26	S	NA	0.15754	U
774	C	175000	F	48	P	NA	1.29284	U
775	C	175000	M	49	PS	200000	-1.21834	N
776	C	175000	F	53	S	15000	1.58770	Y
777	C	175000	F	20	P	2500	1.13840	Y
778	C	175000	M	20	S	15000	0.29898	Y
779	C	175000	F	27	PS	35000	-1.18011	N
780	C	175000	M	36	PS	75000	-0.70445	N
781	C	175000	F	18	S	75000	0.98417	A
782	C	175000	M	50	P	15000	-1.29617	N
783	C	175000	F	40	P	15000	-1.29617	N
784	C	175000	M	21	S	75000	-1.29617	N
785	C	175000	M	43	P	15000	-1.29617	N
786	C	175000	F	23	S	7500	-0.81291	A
787	C	175000	F	39	P	7500	1.58770	Y
788	C	175000	F	64	P	NA	-1.80301	U
789	C	175000	M	54	S	35000	1.21952	U
790	C	175000	M	22	S	35000	0.74317	Y
791	C	175000	F	42	P	15000	-1.29617	N

792	C	175000	M	18	S	75000	0.90886	A
793	C	175000	F	20	P	35000	-1.14456	N
794	C	175000	F	29	S	15000	0.91463	Y
795	C	175000	M	40	P	35000	0.78439	U
796	C	175000	F	60	P	7500	-1.15225	N
797	C	175000	F	35	P	15000	0.94640	Y
798	C	175000	M	39	P	7500	0.42314	U
799	C	175000	M	26	S	15000	-0.79157	N
800	C	175000	M	25	S	125000	1.08773	<NA>
801	C	175000	M	19	PS	35000	0.35572	Y
802	C	175000	F	47	P	15000	-0.32176	U
803	C	175000	F	23	S	7500	-0.79890	A
804	C	175000	F	45	P	7500	0.44717	Y
805	C	175000	M	52	P	15000	1.22444	U
806	C	175000	F	28	PS	NA	1.49096	Y
807	C	175000	F	28	PS	125000	0.06371	Y
808	C	175000	M	39	PS	200000	-0.19457	N
809	C	175000	F	41	PS	75000	1.41116	Y
810	C	175000	M	30	S	15000	-0.61942	U
811	C	175000	F	32	S	15000	-0.99973	N
812	C	175000	M	29	S	35000	-1.07308	N
813	C	175000	M	31	PS	35000	-0.71630	N
814	C	175000	M	37	PS	35000	-0.47005	<NA>
815	C	175000	F	42	PS	35000	-1.00592	N
816	C	175000	F	25	S	15000	-0.97034	U
817	C	175000	F	58	P	7500	0.06874	U
818	C	175000	F	36	S	NA	NA	U
819	C	175000	M	28	S	75000	-0.99275	N
820	C	175000	M	40	P	15000	-0.08067	U
821	C	25000	F	29	P	7500	-0.78136	U
822	C	25000	F	54	P	7500	0.26943	U
823	C	25000	M	33	P	15000	1.17576	U
824	C	25000	F	37	P	15000	1.47615	Y
825	C	25000	M	54	P	7500	0.96198	Y
826	C	25000	M	65	P	15000	0.79963	Y
827	C	25000	F	29	S	15000	-0.39404	U
828	C	25000	M	19	S	35000	-0.73973	N
829	C	25000	M	26	PS	35000	-1.08349	N
830	C	25000	F	45	P	15000	1.56861	Y
831	C	25000	M	25	P	7500	-1.14489	<NA>
832	C	25000	F	40	P	NA	1.12691	Y
833	C	25000	F	34	S	15000	-0.92196	U
834	C	25000	M	39	P	7500	-1.29617	N
835	C	25000	M	36	P	7500	0.80323	Y
836	C	25000	M	47	S	15000	0.29779	Y
837	C	25000	F	30	P	7500	0.24277	U

838	C	25000	F	59	P	15000	1.58770	Y
839	C	25000	M	26	PS	15000	-0.01365	U
840	C	25000	M	23	P	NA	-1.07036	N
841	C	62500	F	45	P	NA	0.15230	Y
842	C	62500	M	52	P	2500	-0.97570	N
843	C	62500	F	21	P	15000	0.63187	U
844	C	62500	M	19	PS	75000	-0.64524	N
845	C	62500	F	20	S	35000	0.81443	Y
846	C	62500	M	20	S	7500	0.71902	Y
847	C	62500	F	47	P	15000	0.35864	Y
848	C	62500	F	25	S	15000	-1.08876	N
849	C	62500	M	42	S	15000	1.09242	Y
850	C	62500	M	40	P	35000	1.43653	Y
851	C	62500	F	29	PS	75000	-0.83828	N
852	C	62500	F	58	P	15000	0.32249	A
853	C	62500	M	40	PS	35000	-0.54836	N
854	C	62500	M	27	PS	35000	-1.25795	N
855	C	62500	F	38	S	75000	0.04945	Y
856	C	62500	F	30	S	35000	0.78044	U
857	C	62500	F	45	P	35000	-1.25861	N
858	C	62500	M	21	S	15000	0.09580	U
859	C	62500	M	25	S	35000	-1.00739	N
860	C	62500	M	50	P	15000	-0.82423	N
861	C	15000	M	28	P	7500	1.55041	U
862	C	15000	F	24	S	15000	1.21971	U
863	C	15000	F	20	S	NA	0.36649	Y
864	C	15000	F	65	S	15000	0.25733	Y
865	C	15000	M	42	S	7500	-0.82337	N
866	C	15000	F	48	P	15000	0.57449	Y
867	C	15000	F	25	P	15000	0.71863	U
868	C	15000	M	34	S	NA	NA	U
869	C	15000	M	46	S	35000	-0.25590	N
870	C	15000	M	44	P	35000	-0.25763	U
871	C	15000	M	23	P	15000	0.41138	A
872	C	15000	M	48	P	7500	1.00124	Y
873	C	15000	M	29	P	7500	1.28046	Y
874	C	15000	F	70	P	7500	0.75321	<NA>
875	C	15000	F	18	P	2500	-0.76832	Y
876	C	15000	M	23	S	7500	0.02383	Y
877	C	15000	M	70	P	7500	-1.29617	N
878	C	15000	F	30	S	7500	1.31961	U
879	C	15000	F	46	P	2500	0.69169	Y
880	C	15000	M	70	P	7500	1.36010	Y
881	C	25000	F	69	P	7500	1.32047	Y
882	C	25000	M	56	P	7500	1.47020	U
883	C	25000	M	22	P	7500	1.35787	Y

884	C	25000	M	27	P	15000	1.30930	<NA>
885	C	25000	M	34	S	15000	0.39928	U
886	C	25000	F	19	S	15000	0.90219	U
887	C	25000	F	20	P	35000	1.08088	Y
888	C	25000	M	29	S	35000	0.65511	U
889	C	25000	F	46	P	2500	0.75797	Y
890	C	25000	M	61	P	2500	1.47615	Y
891	C	25000	M	65	P	15000	0.65890	U
892	C	25000	F	41	P	7500	1.40450	Y
893	C	25000	M	18	P	2500	-1.22876	N
894	C	25000	M	50	P	7500	1.45616	Y
895	C	25000	F	28	S	15000	1.55465	Y
896	C	25000	F	19	S	7500	1.50229	Y
897	C	25000	M	27	S	15000	0.58726	A
898	C	25000	F	39	P	7500	0.76371	U
899	C	25000	M	70	P	7500	1.04827	U
900	C	25000	F	45	P	7500	0.40629	U
901	C	25000	F	39	P	15000	0.43968	<NA>
902	C	25000	F	32	P	7500	1.58770	Y
903	C	25000	M	22	S	15000	-0.95379	N
904	C	25000	F	60	P	7500	1.58770	Y
905	C	25000	M	64	P	7500	1.43653	Y
906	C	25000	F	40	S	NA	1.17767	Y
907	C	25000	F	30	S	35000	0.68807	Y
908	C	25000	M	65	P	NA	1.58770	Y
909	C	25000	M	70	P	NA	1.58770	Y
910	C	25000	M	24	PS	15000	-1.19137	N
911	C	25000	F	21	P	15000	1.33829	Y
912	C	25000	F	49	S	7500	1.35481	Y
913	C	25000	F	21	S	NA	0.53658	U
914	C	25000	M	54	P	15000	0.93380	U
915	C	25000	M	24	P	15000	-1.22258	N
916	C	25000	M	18	S	75000	-0.88064	N
917	C	25000	M	62	P	35000	1.55678	U
918	C	25000	F	44	P	7500	0.91033	U
919	C	25000	F	18	S	35000	0.34316	Y
920	C	25000	M	27	P	35000	-0.02385	Y
921	S	125000	M	18	S	15000	1.29424	Y
922	S	125000	M	44	P	2500	-1.29617	N
923	S	125000	F	31	PS	15000	-1.29617	N
924	S	125000	F	58	S	35000	-1.29617	N
925	S	125000	M	68	P	7500	-1.29617	N
926	S	125000	F	47	P	7500	1.54802	Y
927	S	125000	F	32	S	NA	0.92815	Y
928	S	125000	F	22	P	7500	0.54920	Y
929	S	125000	M	40	PS	75000	1.43203	Y

930	S	125000	M	35	P	2500	1.17367	Y
931	S	125000	M	65	S	15000	1.16430	Y
932	S	125000	M	35	P	15000	0.85852	U
933	S	125000	F	18	P	7500	1.26956	Y
934	S	125000	F	66	S	15000	0.40663	A
935	S	125000	F	22	S	7500	0.96938	Y
936	S	125000	M	23	S	15000	-0.73957	N
937	S	125000	M	60	P	2500	0.65890	U
938	S	125000	F	55	P	NA	-0.09889	<NA>
939	S	125000	M	21	P	2500	1.25084	Y
940	S	125000	F	54	P	15000	0.69887	Y
941	S	45000	M	40	P	75000	0.46287	U
942	S	45000	F	19	S	15000	0.81279	U
943	S	45000	M	32	P	75000	0.99576	U
944	S	45000	F	54	P	75000	0.23543	U
945	S	45000	M	35	P	2500	1.00383	U
946	S	45000	F	19	PS	15000	-0.54880	U
947	S	45000	F	40	P	7500	0.66545	U
948	S	45000	M	25	P	2500	1.25306	Y
949	S	45000	M	48	S	35000	-1.29617	N
950	S	45000	M	37	PS	35000	0.19914	Y
951	S	45000	F	32	S	7500	0.21006	U
952	S	45000	F	18	S	7500	1.31037	Y
953	S	45000	M	53	PS	75000	1.48547	Y
954	S	45000	M	25	PS	35000	1.15380	Y
955	S	45000	F	45	P	2500	-0.60865	U
956	S	45000	F	54	S	7500	-0.26880	N
957	S	45000	F	60	P	75000	-0.89149	Y
958	S	45000	F	18	P	75000	-0.97181	N
959	S	45000	F	49	PS	2500	-0.86092	N
960	S	45000	M	30	P	7500	1.04754	Y
961	S	15000	M	33	P	7500	0.20483	Y
962	S	15000	F	36	P	7500	-1.26247	N
963	S	15000	M	62	P	2500	1.30792	Y
964	S	15000	F	21	S	15000	-0.78802	N
965	S	15000	M	36	P	15000	-0.72822	N
966	S	15000	F	65	P	7500	0.82519	U
967	S	15000	F	22	PS	7500	0.24983	U
968	S	15000	M	25	S	15000	-1.18323	N
969	S	15000	M	63	P	2500	1.43793	Y
970	S	15000	M	26	S	35000	-1.10367	N
971	S	15000	M	67	S	2500	-0.82983	U
972	S	15000	M	25	P	35000	-0.40224	A
973	S	15000	F	30	S	35000	0.24610	U
974	S	15000	F	70	P	7500	-1.16134	U
975	S	15000	F	27	S	15000	1.40733	U

976	S	15000	M	27	PS	35000	-0.50424	N
977	S	15000	F	61	P	7500	1.14930	Y
978	S	15000	M	27	P	2500	1.09701	Y
979	S	15000	F	70	P	7500	0.86323	U
980	S	15000	M	53	S	35000	0.71448	Y
981	S	8750	M	36	P	7500	1.01880	Y
982	S	8750	M	19	P	7500	0.83115	Y
983	S	8750	M	28	S	15000	-1.00723	N
984	S	8750	F	50	P	7500	-1.08585	N
985	S	8750	F	20	P	2500	-0.96528	N
986	S	8750	M	65	P	7500	0.93522	Y
987	S	8750	F	36	P	7500	1.55399	Y
988	S	8750	M	60	S	125000	0.97823	Y
989	S	8750	F	28	S	35000	1.40361	Y
990	S	8750	M	28	S	35000	1.33246	Y
991	S	8750	F	48	S	7500	1.43732	Y
992	S	8750	M	58	P	7500	1.58770	Y
993	S	8750	F	25	S	2500	-0.93058	U
994	S	8750	M	60	P	7500	1.25541	U
995	S	8750	M	23	S	15000	-0.61822	<NA>
996	S	8750	F	25	S	15000	0.10978	U
997	S	8750	F	19	S	35000	0.81609	Y
998	S	8750	M	23	S	75000	1.32935	Y
999	S	8750	F	59	P	15000	0.07679	U
1000	S	8750	M	37	P	15000	1.51284	N
1001	S	125000	F	37	P	15000	0.01293	A
1002	S	125000	F	31	S	7500	0.90908	Y
1003	S	125000	M	27	P	7500	-1.14640	N
1004	S	125000	M	41	S	15000	-0.94060	N
1005	S	125000	M	37	P	15000	0.74986	Y
1006	S	125000	M	68	P	15000	0.38388	U
1007	S	125000	M	25	P	7500	0.38980	U
1008	S	125000	M	25	P	7500	0.96249	Y
1009	S	125000	F	42	P	7500	0.40100	Y
1010	S	125000	F	23	P	2500	1.58770	Y
1011	S	125000	F	32	S	15000	1.55477	Y
1012	S	125000	M	59	S	2500	-0.69048	Y
1013	S	125000	M	28	S	15000	1.36539	Y
1014	S	125000	F	37	S	15000	-0.40457	U
1015	S	125000	F	42	P	15000	1.39692	Y
1016	S	125000	M	36	S	35000	0.16282	Y
1017	S	125000	M	26	S	35000	1.25257	Y
1018	S	125000	F	42	P	15000	0.31096	Y
1019	S	125000	F	18	S	35000	1.40361	Y
1020	S	125000	F	35	PS	35000	-0.31346	N
1021	S	25000	F	23	P	35000	-0.78492	A

1022	S	25000	F	45	P	15000	1.27441	Y
1023	S	25000	M	20	PS	35000	-0.32020	A
1024	S	25000	M	62	P	15000	0.99792	Y
1025	S	25000	M	50	P	35000	0.15260	A
1026	S	25000	F	21	P	15000	1.09549	Y
1027	S	25000	F	40	P	35000	0.10905	Y
1028	S	25000	M	67	P	15000	-0.87023	U
1029	S	25000	M	19	P	35000	-0.97943	N
1030	S	25000	M	22	S	15000	-0.08141	Y
1031	S	25000	M	48	PS	15000	0.80633	Y
1032	S	25000	F	49	P	7500	0.13589	U
1033	S	25000	M	27	P	15000	-0.07280	U
1034	S	25000	F	38	S	15000	1.27567	Y
1035	S	25000	M	23	S	15000	-0.96901	N
1036	S	25000	F	47	P	7500	0.14576	Y
1037	S	25000	F	35	S	7500	1.54808	Y
1038	S	25000	M	24	S	2500	0.24455	Y
1039	S	25000	F	22	S	15000	1.43793	Y
1040	S	25000	M	54	P	7500	-0.91601	U
1041	S	25000	F	25	S	7500	1.21252	A
1042	S	25000	M	59	P	2500	1.39241	Y
1043	S	25000	M	30	S	7500	-0.37017	Y
1044	S	25000	M	26	P	7500	1.18326	Y
1045	S	25000	F	41	S	15000	1.36173	Y
1046	S	25000	F	52	P	2500	-0.79576	U
1047	S	25000	F	21	PS	15000	-1.29617	N
1048	S	25000	M	36	P	7500	-0.04930	N
1049	S	25000	M	28	P	2500	0.13858	U
1050	S	25000	M	42	P	2500	0.12341	Y
1051	S	25000	F	22	PS	35000	-0.71250	N
1052	S	25000	F	36	S	35000	-0.03380	U
1053	S	25000	F	36	PS	35000	0.21687	U
1054	S	25000	M	57	P	7500	-0.43126	U
1055	S	25000	M	20	P	7500	0.25750	Y
1056	S	25000	F	37	P	2500	1.58770	Y
1057	S	25000	M	23	S	2500	-1.19739	N
1058	S	25000	F	24	P	2500	1.46885	Y
1059	S	25000	F	29	P	7500	1.35870	A
1060	S	25000	M	55	P	7500	1.47615	Y
1061	S	250000	M	48	PS	35000	0.40498	Y
1062	S	250000	F	23	S	35000	-1.29293	N
1063	S	250000	M	40	S	35000	-1.15170	N
1064	S	250000	M	20	S	35000	0.98762	Y
1065	S	250000	F	38	PS	75000	0.05047	Y
1066	S	250000	F	26	S	15000	-0.88716	N
1067	S	250000	F	49	S	15000	-1.07783	A

1068	S	250000	M	55	S	35000	-0.16930	N
1069	S	250000	M	39	PS	75000	-0.93530	N
1070	S	250000	M	33	P	NA	-1.03486	N
1071	S	250000	F	18	S	200000	0.11608	U
1072	S	250000	F	65	P	NA	0.32554	Y
1073	S	250000	M	21	PS	75000	-0.80281	N
1074	S	250000	F	33	S	75000	-1.06320	N
1075	S	250000	M	42	PS	125000	-1.03503	N
1076	S	250000	F	24	S	35000	1.26582	Y
1077	S	250000	F	21	S	15000	-0.05113	Y
1078	S	250000	M	33	PS	15000	0.30861	<NA>
1079	S	250000	M	52	PS	7500	0.51881	U
1080	S	250000	F	70	S	75000	1.25757	U
1081	S	250000	F	26	P	7500	0.64423	Y
1082	S	250000	F	53	P	7500	-0.07279	N
1083	S	250000	M	21	P	15000	0.53116	Y
1084	S	250000	F	34	P	15000	0.52985	U
1085	S	250000	M	60	P	35000	1.40283	Y
1086	S	250000	F	28	S	7500	-1.14049	N
1087	S	250000	F	19	S	35000	-1.09015	N
1088	S	250000	M	45	PS	35000	-0.56055	N
1089	S	250000	M	18	S	15000	-0.92939	N
1090	S	250000	F	42	P	35000	-0.15489	<NA>
1091	S	250000	M	30	P	15000	1.06038	<NA>
1092	S	250000	M	21	S	15000	-0.16832	N
1093	S	250000	F	37	P	35000	1.04304	Y
1094	S	250000	F	24	P	7500	-0.88666	Y
1095	S	250000	M	36	PS	75000	-1.22040	N
1096	S	250000	F	39	PS	200000	-1.19438	N
1097	S	250000	F	18	PS	NA	0.37771	Y
1098	S	250000	F	40	PS	200000	1.34540	Y
1099	S	250000	M	55	PS	200000	-1.21974	N
1100	S	250000	M	22	PS	15000	-0.81078	N
1101	S	250000	M	42	S	15000	-1.03314	<NA>
1102	S	250000	F	26	P	7500	0.02034	U
1103	S	250000	M	25	PS	35000	1.32740	Y
1104	S	250000	F	51	S	15000	-1.03120	U
1105	S	250000	F	39	P	75000	-0.28245	N
1106	S	250000	F	39	S	15000	-1.30713	N
1107	S	250000	F	50	<NA>	2500	-1.29617	N
1108	S	250000	M	22	PS	35000	-1.15170	N
1109	S	250000	F	21	S	35000	-1.01948	U
1110	S	250000	M	47	S	15000	-0.97273	N
1111	S	250000	F	23	S	2500	1.35949	Y
1112	S	250000	F	40	P	2500	-1.29617	<NA>
1113	S	250000	M	32	S	7500	0.43679	U

1114	S	250000	M	29	PS	NA	0.96494	Y
1115	S	250000	M	37	S	15000	-0.48129	N
1116	S	250000	F	24	S	15000	-1.18602	N
1117	S	250000	M	18	S	NA	-1.10618	<NA>
1118	S	250000	F	58	P	35000	0.35610	<NA>
1119	S	250000	M	65	P	15000	-1.29617	N
1120	S	250000	F	65	P	15000	-0.22181	U
1121	S	250000	F	57	P	35000	NA	<NA>
1122	S	250000	M	41	S	75000	-0.78299	N
1123	S	250000	M	30	PS	75000	-0.85229	<NA>
1124	S	250000	F	22	S	15000	-0.86098	<NA>
1125	S	250000	M	27	PS	35000	NA	U
1126	S	250000	M	22	S	15000	-0.69824	N
1127	S	250000	M	48	P	2500	-1.09862	A
1128	S	250000	F	40	P	2500	-1.22285	N
1129	S	250000	M	29	S	NA	0.01222	U
1130	S	250000	F	24	PS	200000	0.75867	U
1131	S	250000	M	62	P	35000	-1.10181	U
1132	S	250000	F	30	S	7500	-0.72077	N
1133	S	250000	M	31	PS	15000	-1.05625	N
1134	S	250000	M	29	PS	15000	-0.08136	N
1135	S	250000	F	48	P	7500	-1.29617	N
1136	S	250000	F	53	P	2500	0.55703	Y
1137	S	250000	F	22	P	15000	-1.05197	Y
1138	S	250000	M	30	S	7500	-1.04084	N
1139	S	250000	M	43	S	15000	-1.29617	N
1140	S	250000	M	38	S	15000	-1.21232	N
1141	S	250000	F	39	S	125000	-0.43399	U
1142	S	250000	M	40	PS	75000	-1.11744	N
1143	S	250000	F	66	PS	75000	-1.04075	N
1144	S	250000	M	30	PS	75000	-1.06681	N
1145	S	250000	F	26	S	35000	1.39831	Y
1146	S	250000	F	28	S	7500	-1.00003	N
1147	S	250000	M	35	P	15000	0.34456	Y
1148	S	250000	F	46	S	2500	1.07149	U
1149	S	250000	F	19	S	35000	0.25636	A
1150	S	250000	M	65	P	2500	-1.29617	N
1151	S	250000	M	22	S	35000	-0.29019	Y
1152	S	250000	F	53	P	2500	1.58770	Y
1153	S	250000	F	18	P	2500	0.43869	N
1154	S	250000	M	48	P	NA	-0.15992	<NA>
1155	S	250000	M	33	S	35000	-0.97949	N
1156	S	250000	M	53	P	7500	-1.10088	N
1157	S	250000	M	33	P	15000	1.47476	Y
1158	S	250000	M	37	P	15000	-0.05639	U
1159	S	250000	F	34	P	7500	-0.90890	N

1160	S	250000	F	36	P	15000	0.47789	Y
1161	S	250000	F	36	S	7500	-0.75762	U
1162	S	250000	F	38	S	75000	-0.67253	N
1163	S	250000	M	36	S	35000	1.22715	<NA>
1164	S	250000	M	22	S	15000	-0.88058	N
1165	S	250000	F	18	PS	35000	-1.06673	N
1166	S	250000	F	31	PS	75000	-1.07899	N
1167	S	250000	F	55	P	NA	-1.27270	U
1168	S	250000	F	70	P	75000	NA	U
1169	S	250000	F	18	S	7500	-0.99975	N
1170	S	250000	F	36	S	15000	-0.71567	A
1171	S	250000	M	56	PS	35000	-1.20544	N
1172	S	250000	F	70	S	35000	1.43203	N
1173	S	250000	M	29	PS	NA	-1.25656	N
1174	S	250000	F	22	PS	7500	-1.29617	N
1175	S	250000	F	40	S	35000	1.33821	<NA>
1176	S	250000	M	45	PS	35000	-0.92947	<NA>
1177	S	250000	M	30	P	15000	0.25023	Y
1178	S	250000	F	44	P	7500	0.38898	A
1179	S	250000	F	25	S	15000	0.81611	Y
1180	S	250000	F	48	P	7500	-0.11207	U
1181	S	25000	F	22	PS	15000	-1.06129	N
1182	S	25000	F	63	P	15000	-0.27926	Y
1183	S	25000	M	57	P	15000	0.74066	Y
1184	S	25000	M	22	S	35000	-1.19945	N
1185	S	25000	M	25	P	7500	-1.09176	U
1186	S	25000	F	21	S	2500	-0.80256	N
1187	S	25000	F	51	PS	35000	1.38626	Y
1188	S	25000	M	70	P	15000	-0.48681	U
1189	S	25000	M	36	PS	15000	-0.90237	N
1190	S	25000	M	25	P	15000	-0.79222	N
1191	S	25000	F	24	PS	15000	0.58929	U
1192	S	25000	M	58	S	75000	1.55477	Y
1193	S	25000	F	59	P	15000	-1.29617	N
1194	S	25000	M	28	P	7500	-1.11956	N
1195	S	25000	F	21	S	35000	-0.40754	N
1196	S	25000	M	21	PS	15000	-0.79464	N
1197	S	25000	F	38	PS	75000	-1.29617	N
1198	S	25000	M	70	P	35000	-0.91196	U
1199	S	25000	F	60	S	15000	1.43203	Y
1200	S	25000	F	25	P	15000	-0.76597	N
1201	S	15000	F	38	P	15000	-0.60892	U
1202	S	15000	F	24	S	7500	1.27453	U
1203	S	15000	M	20	P	7500	-0.44311	N
1204	S	15000	M	58	P	7500	1.46885	Y
1205	S	15000	M	58	P	7500	1.68819	Y

1206	S	15000	F	69	S	15000	1.03459	Y
1207	S	15000	M	29	P	15000	0.32316	Y
1208	S	15000	F	34	S	35000	-0.38947	U
1209	S	15000	F	47	S	7500	-1.00879	N
1210	S	15000	F	62	P	7500	0.24454	U
1211	S	15000	F	27	S	7500	-1.00877	N
1212	S	15000	M	69	P	7500	1.58770	Y
1213	S	15000	F	70	P	7500	0.90441	Y
1214	S	15000	M	35	P	7500	0.17868	Y
1215	S	15000	M	19	S	15000	-0.86197	N
1216	S	15000	F	37	P	7500	1.58770	Y
1217	S	15000	F	21	S	15000	-0.99603	N
1218	S	15000	M	20	P	7500	-0.96762	N
1219	S	15000	M	61	P	7500	0.27293	<NA>
1220	S	15000	M	19	S	35000	0.11796	U
1221	S	45000	M	28	S	15000	-1.14640	N
1222	S	45000	F	27	P	15000	-1.07534	<NA>
1223	S	45000	M	41	S	35000	-0.21053	N
1224	S	45000	M	23	P	2500	0.95611	N
1225	S	45000	F	53	P	15000	0.13473	<NA>
1226	S	45000	F	36	S	15000	-1.04877	N
1227	S	45000	F	27	S	7500	-1.21695	N
1228	S	45000	M	64	S	15000	-0.88369	N
1229	S	45000	M	31	S	7500	-1.04155	N
1230	S	45000	M	49	PS	7500	0.43240	Y
1231	S	45000	M	25	PS	15000	-1.29617	N
1232	S	45000	F	33	P	7500	-0.25351	N
1233	S	45000	F	22	P	15000	-0.72379	Y
1234	S	45000	M	63	P	35000	0.81197	Y
1235	S	45000	F	67	P	7500	-0.62189	N
1236	S	45000	F	26	S	7500	-1.22285	U
1237	S	45000	F	49	P	15000	-1.29617	N
1238	S	45000	M	65	S	15000	-0.51411	<NA>
1239	S	45000	F	44	P	35000	-0.15201	<NA>
1240	S	45000	M	30	PS	15000	-0.51062	N
1241	S	25000	F	58	P	2500	-0.93163	N
1242	S	25000	M	66	P	2500	1.48145	Y
1243	S	25000	F	37	P	7500	0.93681	U
1244	S	25000	F	28	P	7500	1.25522	Y
1245	S	25000	M	20	S	2500	0.00720	N
1246	S	25000	M	49	P	7500	1.29306	Y
1247	S	25000	F	30	S	7500	1.58770	Y
1248	S	25000	F	67	P	15000	1.39971	Y
1249	S	25000	F	31	P	7500	1.24248	Y
1250	S	25000	M	33	S	15000	-0.20032	U
1251	S	25000	M	29	P	2500	-1.29617	N

1252	S	25000	M	69	P	7500	1.18476	Y
1253	S	25000	F	27	S	15000	0.35728	Y
1254	S	25000	F	43	P	7500	-0.86824	<NA>
1255	S	25000	M	64	P	NA	-1.05791	A
1256	S	25000	F	20	P	2500	1.22013	Y
1257	S	25000	F	38	P	15000	0.95449	Y
1258	S	25000	M	64	P	NA	0.34505	N
1259	S	25000	M	24	S	7500	0.36676	N
1260	S	25000	M	34	PS	15000	0.06712	A
1261	S	8750	M	28	PS	75000	-0.18762	A
1262	S	8750	M	70	P	7500	0.94771	U
1263	S	8750	F	38	S	15000	1.18423	Y
1264	N	8750	F	32	P	7500	1.22566	Y
1265	S	8750	M	32	S	75000	1.35949	<NA>
1266	S	8750	F	24	P	7500	1.38957	Y
1267	S	8750	F	37	S	7500	1.33244	Y
1268	S	8750	M	50	P	7500	1.59350	Y
1269	S	8750	M	50	P	7500	1.19527	Y
1270	S	8750	M	29	P	15000	1.35218	U
1271	S	8750	M	26	S	7500	1.27280	Y
1272	S	8750	M	37	PS	7500	-1.04106	N
1273	S	8750	F	20	P	2500	1.47476	Y
1274	S	8750	F	36	P	35000	-0.98395	U
1275	S	8750	M	38	P	15000	1.50380	Y
1276	S	8750	F	26	P	7500	1.20337	Y
1277	S	8750	M	46	S	7500	1.44322	Y
1278	S	8750	F	68	P	15000	0.06376	U
1279	S	8750	F	37	P	2500	1.45600	Y
1280	S	8750	M	34	PS	75000	0.84590	U
1281	S	45000	F	46	PS	35000	1.17549	Y
1282	S	45000	M	47	S	75000	-1.22876	N
1283	S	45000	F	20	S	35000	0.24220	N
1284	S	45000	M	26	P	15000	0.67166	Y
1285	S	45000	M	19	S	75000	1.21306	Y
1286	S	45000	F	32	PS	15000	1.21501	<NA>
1287	S	45000	F	20	S	15000	1.19375	Y
1288	S	45000	F	65	P	7500	1.58770	Y
1289	S	45000	M	45	P	7500	1.58770	Y
1290	S	45000	M	27	S	35000	0.83702	Y
1291	S	45000	F	40	PS	35000	0.91251	U
1292	S	45000	F	33	PS	15000	1.47024	Y
1293	S	45000	M	37	PS	35000	-0.26722	N
1294	S	45000	F	39	P	NA	1.31511	Y
1295	S	45000	M	29	S	35000	-0.68978	<NA>
1296	S	45000	M	32	P	35000	1.35260	Y
1297	S	45000	F	30	P	7500	0.07743	A

1298	S	45000	F	44	P	15000	1.13002	Y
1299	S	45000	F	60	P	7500	1.29953	U
1300	S	45000	M	37	S	15000	-1.15543	A
1301	S	25000	F	58	P	7500	0.50186	N
1302	S	25000	M	35	P	15000	0.10046	U
1303	S	25000	M	47	S	35000	1.47615	Y
1304	S	25000	F	45	P	7500	0.02279	A
1305	S	25000	F	20	S	NA	1.27928	Y
1306	S	25000	F	45	P	7500	1.58770	Y
1307	S	25000	M	21	S	15000	1.08435	Y
1308	S	25000	F	18	PS	35000	1.36539	Y
1309	S	25000	F	25	PS	35000	-1.29617	N
1310	S	25000	M	65	PS	35000	-1.22876	N
1311	S	25000	F	47	P	2500	1.58770	Y
1312	S	25000	M	56	P	7500	0.22900	N
1313	S	25000	M	59	P	15000	-0.27660	Y
1314	S	25000	F	23	P	7500	0.27658	Y
1315	S	25000	M	19	S	15000	1.29798	Y
1316	S	25000	M	38	S	35000	-0.28181	N
1317	S	25000	F	48	P	7500	0.36525	Y
1318	S	25000	M	27	P	7500	1.47024	Y
1319	S	25000	F	18	P	7500	-1.29617	N
1320	S	25000	M	26	P	7500	0.95080	Y
1321	S	25000	M	24	P	15000	-1.15693	N
1322	S	25000	M	29	S	15000	-0.33243	N
1323	S	25000	F	33	P	7500	1.29012	Y
1324	S	25000	F	58	P	7500	NA	Y
1325	S	25000	M	36	S	15000	1.50846	Y
1326	S	25000	M	35	S	35000	1.00996	Y
1327	S	25000	F	54	S	35000	-1.21695	N
1328	S	25000	F	20	S	35000	0.41846	U
1329	S	25000	M	46	S	75000	1.48735	Y
1330	S	25000	F	24	S	35000	-0.26866	N
1331	S	25000	F	24	P	2500	0.90932	Y
1332	S	25000	M	20	PS	35000	-0.08054	Y
1333	S	25000	M	41	S	35000	0.82505	Y
1334	S	25000	M	48	P	15000	-0.70898	N
1335	S	25000	F	50	P	35000	0.14576	U
1336	S	25000	F	34	P	7500	1.26410	Y
1337	S	25000	M	43	P	15000	0.97998	Y
1338	S	25000	M	18	S	7500	-0.85414	N
1339	S	25000	F	36	P	7500	1.58486	Y
1340	S	25000	F	57	P	7500	-0.35168	N
1341	S	250000	M	21	PS	7500	0.62396	A
1342	S	250000	M	36	PS	75000	1.43653	Y
1343	S	250000	F	43	P	7500	-0.20299	Y

1344	S	250000	F	30	S	35000	-0.82983	U
1345	S	250000	F	33	S	15000	0.32316	U
1346	S	250000	F	38	P	15000	-0.44442	N
1347	S	250000	M	28	S	15000	-0.07212	U
1348	S	250000	F	36	S	15000	0.91548	U
1349	S	250000	F	22	S	35000	0.32842	Y
1350	S	250000	M	36	S	35000	1.12564	Y
1351	S	250000	F	32	PS	35000	0.20020	A
1352	S	250000	M	29	S	75000	-1.08646	N
1353	S	250000	F	31	S	75000	0.18242	U
1354	S	250000	M	45	S	75000	1.01395	Y
1355	S	250000	F	38	S	35000	-1.29617	N
1356	S	250000	M	56	S	35000	-0.93647	U
1357	S	250000	M	48	P	35000	0.11316	Y
1358	S	250000	F	29	PS	200000	-1.29617	N
1359	S	250000	F	49	S	125000	0.06119	Y
1360	S	250000	M	18	S	75000	-1.22285	N
1361	S	250000	F	32	PS	75000	1.01661	Y
1362	S	250000	F	57	S	35000	0.27836	U
1363	S	250000	F	39	P	7500	-0.55281	N
1364	S	250000	M	25	S	15000	-0.48886	U
1365	S	250000	M	65	PS	35000	-1.23032	N
1366	S	250000	F	52	P	15000	-0.87337	N
1367	S	250000	M	64	P	7500	-1.12468	N
1368	S	250000	F	38	S	2500	0.47106	U
1369	S	250000	F	35	P	35000	0.65343	U
1370	S	250000	M	20	P	15000	-0.68757	N
1371	S	250000	F	40	P	7500	-0.03691	Y
1372	S	250000	F	21	S	7500	1.19250	A
1373	S	250000	M	68	S	35000	-1.04094	N
1374	S	250000	M	31	P	15000	1.36267	Y
1375	S	250000	M	23	S	125000	-1.06402	N
1376	S	250000	F	45	P	35000	1.69876	<NA>
1377	S	250000	F	18	S	35000	-1.16969	U
1378	S	250000	F	31	S	7500	0.59524	U
1379	S	250000	M	22	S	35000	-0.96697	N
1380	S	250000	M	37	S	35000	1.36617	A
1381	S	15000	F	59	P	75000	1.32500	Y
1382	S	15000	F	23	S	35000	1.51515	Y
1383	S	15000	M	38	P	15000	0.23917	U
1384	S	15000	M	21	S	NA	-0.33534	A
1385	S	15000	M	31	S	35000	0.50833	<NA>
1386	S	15000	F	41	P	7500	-0.72318	N
1387	S	15000	M	43	P	15000	0.59896	Y
1388	S	15000	M	23	PS	7500	1.58770	Y
1389	S	15000	F	35	P	15000	1.58770	Y

1390	S	15000	M	60	P	7500	0.57763	N
1391	S	15000	F	36	S	2500	0.19238	U
1392	S	15000	M	43	S	15000	-0.43921	U
1393	S	15000	F	35	PS	35000	1.58770	Y
1394	S	15000	M	22	P	7500	0.67327	N
1395	S	15000	F	27	PS	35000	NA	<NA>
1396	S	15000	M	25	P	15000	-0.97709	N
1397	S	15000	M	66	P	15000	1.57366	Y
1398	S	15000	F	33	P	15000	1.40952	Y
1399	S	15000	M	59	P	7500	1.58770	Y
1400	S	15000	F	67	P	7500	0.51637	N
1401	S	15000	M	21	P	15000	-1.00723	N
1402	S	15000	M	54	P	15000	0.20137	Y
1403	S	15000	F	35	S	35000	0.16992	A
1404	N	15000	M	21	PS	35000	1.29424	Y
1405	S	15000	M	55	S	35000	-1.29617	N
1406	S	15000	M	23	S	2500	0.43877	<NA>
1407	S	15000	M	66	P	15000	-1.29617	N
1408	S	15000	F	49	P	2500	-1.12920	<NA>
1409	S	15000	M	68	P	7500	0.97936	Y
1410	S	15000	F	20	P	2500	0.09844	Y
1411	S	15000	F	31	S	35000	0.65654	U
1412	S	15000	M	23	S	35000	-1.11878	N
1413	S	15000	M	27	S	7500	0.57369	Y
1414	S	15000	M	60	S	7500	0.31993	U
1415	S	15000	F	43	P	7500	1.06426	Y
1416	S	15000	M	34	P	15000	1.58770	U
1417	S	15000	M	43	P	35000	-0.54177	N
1418	S	15000	M	37	S	35000	1.26614	Y
1419	S	15000	F	48	P	2500	0.89357	U
1420	S	15000	F	28	P	7500	1.15210	U
1421	S	25000	F	21	S	35000	-0.80987	N
1422	S	25000	M	50	S	75000	-0.05229	U
1423	S	25000	F	45	S	35000	-0.41564	U
1424	S	25000	M	30	S	35000	0.30179	Y
1425	S	25000	F	69	S	7500	-0.11321	U
1426	S	25000	F	56	P	2500	1.43432	<NA>
1427	S	25000	F	28	P	35000	0.19238	U
1428	S	25000	F	37	P	2500	-0.36626	A
1429	S	25000	M	30	S	2500	1.00098	Y
1430	S	25000	M	37	P	7500	NA	U
1431	S	25000	M	21	P	35000	-0.35694	N
1432	S	25000	F	40	P	2500	-0.23049	U
1433	S	25000	M	57	P	7500	0.10233	Y
1434	S	25000	M	27	S	15000	-0.43537	N
1435	S	25000	F	18	S	2500	1.56059	Y

1436	S	25000	F	25	P	7500	1.36755	Y
1437	S	25000	F	49	P	2500	0.16314	Y
1438	S	25000	M	18	S	7500	-1.21834	N
1439	S	25000	M	47	PS	35000	-1.14049	N
1440	S	25000	F	22	P	15000	1.54947	Y
1441	S	125000	M	43	PS	75000	-0.92993	N
1442	S	125000	F	52	P	15000	0.95840	Y
1443	S	125000	F	24	S	15000	-0.67175	A
1444	S	125000	M	18	S	15000	-0.98612	N
1445	S	125000	M	28	PS	75000	-1.14049	N
1446	S	125000	M	43	P	200000	1.50201	Y
1447	S	125000	F	37	P	35000	0.47684	<NA>
1448	S	125000	F	23	S	35000	-1.26853	N
1449	S	125000	M	23	PS	35000	-1.03486	N
1450	S	125000	M	42	PS	35000	0.66881	U
1451	S	125000	M	20	S	15000	0.52377	U
1452	S	125000	F	20	PS	35000	-1.04950	N
1453	S	125000	F	48	P	15000	-0.90176	U
1454	S	125000	M	36	S	15000	0.60546	U
1455	S	125000	F	33	P	75000	-1.29617	N
1456	S	125000	F	38	PS	125000	-0.15788	N
1457	S	125000	M	37	P	35000	1.28625	Y
1458	S	125000	M	22	PS	200000	1.12564	Y
1459	S	125000	M	42	PS	200000	1.54808	Y
1460	S	125000	F	19	PS	200000	1.54808	Y
1461	S	15000	M	41	P	15000	1.37299	Y
1462	S	15000	M	27	PS	NA	1.35464	U
1463	S	15000	F	23	S	7500	0.68101	Y
1464	S	15000	M	56	P	7500	0.35966	U
1465	S	15000	F	44	P	75000	1.40449	Y
1466	S	15000	F	33	P	15000	-1.29617	N
1467	S	15000	M	19	S	15000	1.71355	Y
1468	S	15000	M	37	P	35000	1.43203	Y
1469	S	15000	F	62	P	2500	1.26728	U
1470	S	15000	F	36	P	15000	0.85910	U
1471	S	15000	F	26	PS	35000	-1.04234	N
1472	S	15000	F	36	P	35000	0.13228	U
1473	S	15000	M	40	PS	75000	0.41409	N
1474	S	15000	M	22	P	15000	1.14114	Y
1475	S	15000	M	32	P	15000	1.45955	Y
1476	S	15000	F	19	P	2500	0.50295	Y
1477	S	15000	M	34	S	75000	1.36617	Y
1478	S	15000	M	69	P	15000	1.39479	Y
1479	S	15000	F	32	S	35000	0.52178	Y
1480	S	15000	F	39	P	2500	0.39966	Y
1481	S	25000	F	31	P	7500	1.50986	Y

1482	S	25000	F	57	P	7500	1.54731	U
1483	S	25000	M	28	P	15000	0.67731	U
1484	S	25000	M	33	P	15000	-0.82779	U
1485	S	25000	M	63	S	35000	1.01347	Y
1486	S	25000	F	36	P	15000	0.49424	U
1487	S	25000	M	52	S	7500	0.77456	Y
1488	S	25000	F	44	P	35000	0.52212	Y
1489	S	25000	M	19	S	2500	1.40641	U
1490	S	25000	F	27	S	35000	0.92562	A
1491	S	25000	F	29	S	2500	-1.25656	U
1492	S	25000	M	66	P	7500	-0.84133	<NA>
1493	S	25000	M	24	P	2500	-1.25656	U
1494	S	25000	F	59	P	7500	-1.29617	Y
1495	S	25000	F	31	S	15000	1.00888	Y
1496	S	25000	F	45	S	7500	1.09242	Y
1497	S	25000	F	19	PS	15000	-0.14866	A
1498	S	25000	M	37	PS	7500	-0.61342	N
1499	S	25000	M	36	S	7500	0.84092	A
1500	S	25000	M	21	P	7500	0.73054	Y
1501	S	125000	F	59	P	15000	-0.89099	U
1502	S	125000	F	32	PS	35000	1.06803	Y
1503	S	125000	M	47	P	35000	-1.18323	N
1504	S	125000	M	18	S	35000	-0.92939	N
1505	S	125000	M	34	S	15000	-0.75084	N
1506	S	125000	M	29	S	35000	0.95989	<NA>
1507	S	125000	F	24	S	35000	-1.25795	N
1508	S	125000	M	52	S	15000	-0.55931	<NA>
1509	S	125000	F	52	P	35000	1.09454	Y
1510	S	125000	F	54	P	35000	1.34252	Y
1511	S	125000	F	45	P	2500	1.27772	U
1512	S	125000	F	32	P	7500	-0.09680	U
1513	S	125000	M	40	P	7500	0.70614	U
1514	S	125000	M	34	P	7500	-0.84411	N
1515	S	125000	M	44	P	15000	-0.12988	A
1516	S	125000	M	39	S	75000	-1.14049	N
1517	S	125000	F	40	S	125000	0.14576	A
1518	S	125000	F	55	P	2500	-1.00723	N
1519	S	125000	F	21	P	15000	0.11541	Y
1520	S	125000	M	18	S	7500	-1.15309	N
1521	S	125000	M	70	S	75000	1.05894	Y
1522	S	125000	F	31	S	125000	1.43203	Y
1523	S	125000	F	35	PS	75000	1.03393	Y
1524	S	125000	F	40	S	35000	0.43786	Y
1525	S	125000	M	27	PS	125000	-0.32494	N
1526	S	125000	F	55	P	15000	-0.36459	A
1527	S	125000	F	28	P	15000	1.49187	Y

1528	S	125000	F	41	P	15000	-0.66172	N
1529	S	125000	M	36	P	75000	0.84959	U
1530	S	125000	M	19	S	7500	-0.17095	Y
1531	S	125000	F	29	S	15000	-1.07733	U
1532	S	125000	M	47	S	35000	1.43203	Y
1533	S	125000	M	30	S	15000	-0.93468	N
1534	S	125000	M	22	S	15000	-1.18993	N
1535	S	125000	F	43	S	15000	1.03251	Y
1536	S	125000	F	67	P	15000	1.00184	Y
1537	S	125000	M	22	S	35000	-0.84201	N
1538	S	125000	F	29	P	7500	1.44774	Y
1539	S	125000	F	24	S	35000	1.24184	Y
1540	S	125000	M	49	P	35000	1.58770	Y
1541	S	15000	F	50	S	75000	NA	A
1542	S	15000	F	21	P	7500	-1.14317	N
1543	S	15000	F	58	P	15000	1.32577	Y
1544	S	15000	M	18	PS	NA	2.04859	U
1545	S	15000	M	62	S	35000	1.12272	Y
1546	S	15000	M	47	S	125000	0.66292	Y
1547	S	15000	M	23	S	15000	-1.00193	N
1548	S	15000	M	66	P	7500	1.17153	U
1549	S	15000	F	30	S	7500	0.99168	Y
1550	S	15000	F	36	PS	75000	1.47693	Y
1551	S	15000	M	29	P	15000	1.39910	U
1552	S	15000	F	31	P	15000	1.31661	Y
1553	S	15000	M	58	P	2500	-0.76995	U
1554	S	15000	F	57	P	7500	-1.22954	U
1555	S	15000	M	26	P	2500	-1.15762	N
1556	S	15000	M	24	P	NA	NA	N
1557	S	15000	F	25	S	200000	1.58770	U
1558	S	15000	F	48	P	75000	1.58770	Y
1559	S	15000	M	60	P	15000	1.16179	Y
1560	S	15000	F	27	P	7500	1.35000	N
1561	S	125000	F	44	S	7500	-0.65490	N
1562	S	125000	F	22	S	7500	-1.10678	N
1563	S	125000	M	63	P	35000	1.32162	Y
1564	S	125000	M	28	S	35000	0.12520	Y
1565	S	125000	M	27	PS	35000	-0.99172	N
1566	S	125000	F	24	S	75000	1.37068	Y
1567	S	125000	M	32	S	15000	-1.18173	N
1568	S	125000	F	25	P	7500	-0.70047	N
1569	S	125000	F	59	P	NA	NA	Y
1570	S	125000	M	39	P	7500	0.40746	U
1571	S	125000	M	31	P	75000	1.15958	U
1572	S	125000	M	41	S	15000	0.99704	N
1573	S	125000	F	31	PS	125000	1.27275	<NA>

1574	S	125000	M	42	PS	125000	0.12256	A
1575	S	125000	F	41	P	15000	1.20579	U
1576	S	125000	F	49	P	35000	1.23693	Y
1577	S	125000	M	39	PS	75000	-0.83444	N
1578	S	125000	F	25	S	35000	0.29024	Y
1579	S	125000	M	20	S	35000	-0.42725	Y
1580	S	125000	F	39	P	75000	-0.11784	Y
1581	S	25000	F	24	PS	NA	-0.67050	U
1582	S	25000	F	22	PS	15000	1.00318	Y
1583	S	25000	F	41	P	7500	1.00528	Y
1584	S	25000	M	64	PS	35000	1.58770	Y
1585	S	25000	M	18	S	15000	-0.83900	N
1586	S	25000	F	19	S	7500	0.22416	N
1587	S	25000	M	38	P	15000	1.40290	Y
1588	S	25000	M	23	S	35000	0.34331	A
1589	S	25000	M	21	P	35000	0.74667	U
1590	S	25000	F	43	P	2500	-1.26524	N
1591	S	25000	F	51	P	2500	0.28952	U
1592	S	25000	M	39	P	7500	-0.82861	A
1593	S	25000	M	26	P	35000	-0.41063	N
1594	S	25000	F	33	S	35000	0.55175	Y
1595	S	25000	F	55	P	7500	-1.29617	U
1596	S	25000	F	40	P	2500	-0.30396	Y
1597	S	25000	F	70	P	15000	1.32577	Y
1598	S	25000	F	31	P	15000	-1.04981	U
1599	S	25000	M	43	P	35000	0.61457	Y
1600	S	25000	M	22	P	15000	1.51655	Y
1601	S	25000	F	51	P	35000	0.98642	<NA>
1602	S	25000	F	24	S	35000	0.46682	N
1603	S	25000	F	24	P	35000	-0.25323	Y
1604	S	25000	M	38	P	35000	0.66157	Y
1605	S	25000	M	25	S	75000	1.25199	Y
1606	S	25000	M	28	S	75000	-0.89167	A
1607	S	25000	M	60	P	7500	0.34221	N
1608	S	25000	M	27	S	75000	-0.78296	U
1609	S	25000	F	37	S	7500	-1.25899	Y
1610	S	25000	F	26	P	7500	0.79717	Y
1611	S	25000	M	34	P	75000	0.31015	U
1612	S	25000	F	30	PS	35000	0.44087	A
1613	S	25000	F	41	S	35000	0.84982	A
1614	S	25000	F	37	P	15000	-0.98021	U
1615	S	25000	M	39	S	35000	0.75548	U
1616	S	25000	M	34	PS	75000	1.36206	Y
1617	S	25000	M	42	PS	125000	-1.03027	N
1618	S	25000	F	52	P	15000	1.31484	U
1619	S	25000	F	19	P	15000	0.22425	U

1620	S	25000	F	37	PS	35000	-0.16155	U
1621	S	25000	F	50	S	35000	-1.29617	<NA>
1622	S	25000	F	23	S	15000	-1.18602	N
1623	S	25000	M	32	S	75000	0.93010	U
1624	S	25000	M	42	S	125000	0.67322	A
1625	S	25000	M	32	S	35000	0.01598	U
1626	S	25000	M	45	P	7500	-1.14952	N
1627	S	25000	F	30	S	2500	-1.04842	N
1628	S	25000	M	30	S	2500	1.43653	Y
1629	S	25000	F	66	P	15000	1.58770	Y
1630	S	25000	F	22	P	2500	-0.97507	N
1631	S	25000	M	41	P	2500	-1.29617	<NA>
1632	S	25000	F	38	S	35000	-1.04500	N
1633	S	25000	M	35	S	35000	-1.21974	N
1634	S	25000	M	65	P	15000	-1.29617	N
1635	S	25000	F	28	S	15000	-0.43759	A
1636	S	25000	M	59	S	35000	0.76631	Y
1637	S	25000	M	28	P	35000	1.27034	Y
1638	S	25000	F	21	S	35000	0.61585	Y
1639	S	25000	F	52	P	15000	0.92820	U
1640	S	25000	F	64	S	75000	-0.03354	N
1641	SA	250000	M	33	S	35000	-1.06452	N
1642	SA	250000	M	50	P	15000	0.45059	Y
1643	SA	250000	F	25	PS	35000	-1.29617	N
1644	SA	250000	F	55	S	15000	-1.10897	N
1645	SA	250000	M	27	PS	35000	0.20291	Y
1646	SA	250000	M	20	S	15000	-1.05543	N
1647	SA	250000	M	51	S	15000	-1.29617	<NA>
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1649	SA	250000	F	43	P	35000	0.49878	U
1650	SA	250000	M	40	PS	75000	1.24546	Y
1651	SA	250000	F	36	S	15000	-0.58334	A
1652	SA	250000	M	45	P	35000	-1.11130	N
1653	SA	250000	F	32	S	15000	0.88028	<NA>
1654	SA	250000	F	23	S	35000	0.62692	Y
1655	SA	250000	M	18	S	NA	-0.50453	N
1656	SA	250000	M	28	PS	75000	-0.93008	N
1657	SA	250000	M	44	S	75000	1.58770	Y
1658	SA	250000	F	22	PS	35000	-0.30240	U
1659	SA	250000	F	45	P	15000	-0.49024	Y
1660	SA	250000	M	42	P	7500	-1.12096	U
1661	SA	250000	F	37	P	15000	1.44774	U
1662	SA	250000	F	26	P	15000	0.30361	U
1663	SA	250000	M	33	PS	35000	-0.58329	N
1664	SA	250000	F	45	S	7500	0.19216	U
1665	SA	250000	M	53	PS	35000	-1.03400	N

1666	SA	250000	F	24	PS	35000	-1.29617	N
1667	SA	250000	F	47	PS	75000	-0.40469	N
1668	SA	250000	F	36	PS	35000	-1.05877	N
1669	SA	250000	M	34	PS	75000	0.71248	<NA>
1670	SA	250000	M	45	PS	125000	1.29875	Y
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1673	SA	250000	F	35	S	35000	-0.75754	U
1674	SA	250000	F	53	S	35000	-0.37617	U
1675	SA	250000	M	20	S	75000	-0.78955	N
1676	SA	250000	M	50	P	15000	0.02737	Y
1677	SA	250000	F	67	P	7500	0.84968	Y
1678	SA	250000	F	30	S	35000	0.60127	Y
1679	SA	250000	F	65	P	15000	-1.06347	N
1680	SA	250000	M	33	S	15000	0.91949	U
1681	SA	250000	F	57	P	15000	0.06283	Y
1682	SA	250000	F	21	PS	35000	-0.36306	A
1683	SA	250000	M	28	S	15000	-1.02236	Y
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1685	SA	250000	M	36	PS	15000	-1.15236	N
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1687	SA	250000	F	58	S	15000	1.21422	<NA>
1688	SA	250000	F	22	S	NA	-1.01895	N
1689	SA	250000	M	38	PS	35000	-0.50707	N
1690	SA	250000	F	59	S	15000	-0.09055	U
1691	SA	250000	M	32	S	35000	-0.12109	U
1692	SA	250000	F	52	S	15000	-1.10692	N
1693	SA	250000	F	21	PS	15000	-0.89847	N
1694	SA	250000	F	23	PS	35000	-1.29617	N
1695	SA	250000	M	36	S	75000	1.25914	Y
1696	SA	250000	M	65	P	35000	1.55312	Y
1697	SA	250000	M	29	PS	35000	-1.06618	<NA>
1698	SA	250000	F	47	S	35000	0.16230	U
1699	SA	250000	F	32	P	2500	1.29311	Y
1700	SA	250000	F	51	P	15000	1.14251	<NA>
1701	SA	250000	F	44	PS	125000	1.47615	Y
1702	SA	250000	M	57	P	35000	-1.29617	N
1703	SA	250000	M	50	P	15000	0.65460	Y
1704	SA	250000	M	35	S	35000	0.36224	U
1705	SA	250000	F	20	PS	35000	0.88345	Y
1706	SA	250000	F	48	S	35000	-0.11023	U
1707	SA	250000	F	33	S	35000	0.94201	Y
1708	SA	250000	M	20	S	35000	0.42371	N
1709	SA	250000	M	36	S	35000	0.35407	Y
1710	SA	250000	M	70	S	15000	1.41030	Y
1711	SA	250000	M	67	P	7500	-1.07308	N

1712	SA	250000	M	25	S	15000	0.02663	U
1713	SA	250000	M	37	S	15000	-0.92721	N
1714	SA	250000	F	26	S	15000	1.36523	Y
1715	SA	250000	F	39	S	15000	0.63292	Y
1716	SA	250000	M	45	P	15000	-0.68375	N
1717	SA	250000	M	24	PS	35000	1.47164	Y
1718	SA	250000	F	32	P	7500	1.20920	U
1719	SA	250000	F	45	P	15000	-1.26247	N
1720	SA	250000	M	50	P	7500	-1.29617	N
1721	SA	250000	F	40	P	15000	-0.77529	U
1722	SA	250000	F	19	S	NA	0.13859	<NA>
1723	SA	250000	M	35	PS	75000	-0.83220	N
1724	SA	250000	M	28	S	15000	1.37129	Y
1725	SA	250000	M	47	P	7500	-1.29617	N
1726	SA	250000	M	21	S	15000	-1.04205	N
1727	SA	250000	M	53	P	35000	-0.89545	<NA>
1728	SA	250000	F	39	P	35000	-1.17235	N
1729	SA	250000	F	20	PS	35000	-0.04348	N
1730	SA	250000	M	63	P	15000	1.58770	Y
1731	SA	250000	M	32	S	2500	-0.62650	N
1732	SA	250000	M	50	P	15000	0.69498	<NA>
1733	SA	250000	F	43	P	15000	1.33205	Y
1734	SA	250000	M	30	S	35000	1.24611	Y
1735	SA	250000	F	20	S	15000	1.41860	Y
1736	SA	250000	M	56	P	35000	-0.24431	U
1737	SA	250000	M	36	PS	35000	-1.29617	A
1738	SA	250000	M	27	PS	35000	-0.76483	N
1739	SA	250000	F	20	P	7500	0.96737	Y
1740	SA	250000	M	40	PS	35000	-1.25666	<NA>
1741	SA	250000	F	24	S	7500	-1.29617	N
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1744	SA	250000	M	18	S	35000	0.27038	N
1745	SA	250000	F	31	S	35000	1.60510	U
1746	SA	250000	M	52	P	NA	0.77545	<NA>
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1750	SA	250000	F	22	S	75000	1.40347	Y
1751	SA	250000	F	55	S	35000	-0.39484	U
1752	SA	250000	M	22	S	35000	-0.19563	U
1753	SA	250000	M	61	P	35000	0.46818	U
1754	SA	250000	M	62	P	35000	-0.40587	U
1755	SA	250000	F	58	S	35000	1.24625	<NA>
1756	SA	250000	F	27	P	125000	0.68235	A
1757	SA	250000	F	19	S	7500	0.48183	U

1758	SA	250000	F	46	S	35000	-1.26441	A
1759	SA	250000	M	36	S	15000	-1.18540	N
1760	SA	250000	F	60	P	35000	0.38340	Y
1761	SA	250000	M	34	PS	35000	0.54921	U
1762	SA	250000	F	23	S	7500	-1.30482	<NA>
1763	SA	250000	M	22	S	15000	-1.11582	A
1764	SA	250000	F	47	P	15000	0.83048	Y
1765	SA	250000	M	43	S	35000	-0.18260	N
1766	SA	250000	M	49	P	35000	0.74014	U
1767	SA	250000	M	57	P	7500	-1.29617	N
1768	SA	250000	F	37	S	35000	-0.30030	U
1769	SA	250000	M	25	S	35000	-1.29617	N
1770	SA	250000	F	44	P	15000	1.32555	Y
1771	SA	250000	F	19	P	15000	-0.47883	U
1772	SA	250000	F	31	S	NA	1.41649	A
1773	SA	250000	M	24	S	15000	0.72708	Y
1774	SA	250000	F	63	P	NA	NA	U
1775	SA	250000	M	38	P	NA	0.65890	<NA>
1776	SA	250000	F	19	PS	35000	-0.82327	N
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1779	SA	250000	F	38	P	15000	-1.29617	N
1780	SA	250000	F	36	S	2500	0.00744	U
1781	SA	250000	F	69	P	15000	1.25678	Y
1782	SA	250000	M	21	PS	75000	0.28707	Y
1783	SA	250000	F	25	PS	15000	1.09971	A
1784	SA	250000	M	42	S	35000	-0.62392	Y
1785	SA	250000	M	55	<NA>	7500	-1.12929	U
1786	SA	250000	M	49	S	35000	1.50986	Y
1787	SA	250000	M	31	PS	35000	-1.29617	<NA>
1788	SA	250000	F	40	S	15000	0.29175	U
1789	SA	250000	F	28	PS	75000	NA	U
1790	SA	250000	F	53	PS	15000	-0.27889	A
1791	SA	250000	M	22	S	35000	-0.43626	N
1792	SA	250000	M	45	S	35000	-0.18888	A
1793	SA	250000	F	18	S	200000	-1.18011	N
1794	SA	250000	F	42	PS	35000	1.15278	<NA>
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1796	SA	250000	F	21	PS	15000	-1.21834	N
1797	SA	250000	M	19	S	7500	-0.83080	N
1798	SA	250000	F	59	P	15000	-1.04005	U
1799	SA	250000	F	60	P	35000	-0.68090	N
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1802	SA	250000	F	62	S	75000	1.58770	Y
1803	SA	250000	M	24	S	15000	-0.14715	Y

1804	SA	250000	F	70	P	35000	1.55399	Y
1805	SA	250000	M	42	S	35000	1.50846	A
1806	SA	250000	M	21	PS	35000	-1.22285	N
1807	SA	250000	F	50	S	75000	0.22716	Y
1808	SA	250000	F	60	P	35000	-0.57897	U
1809	SA	250000	F	22	P	75000	-1.12024	N
1810	SA	250000	M	NA	P	15000	-1.08507	U
1811	SA	250000	F	56	S	35000	0.53532	Y
1812	SA	250000	M	70	P	35000	1.42686	<NA>
1813	SA	250000	M	22	S	15000	-1.29617	N
1814	SA	250000	F	42	S	35000	0.93400	Y
1815	SA	250000	M	53	P	15000	1.42770	Y
1816	SA	250000	F	30	S	15000	-1.26325	N
1817	SA	250000	M	24	PS	200000	-1.00115	N
1818	SA	250000	F	55	P	15000	0.14613	<NA>
1819	SA	250000	F	37	S	35000	0.91144	Y
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1821	SA	250000	M	41	S	75000	-1.04685	N
1822	SA	250000	F	21	S	35000	-0.94650	A
1823	SA	250000	F	36	S	7500	-0.40386	A
1824	SA	250000	F	29	P	15000	-0.73164	A
1825	SA	250000	M	21	S	75000	-0.08700	U
1826	SA	250000	M	55	P	15000	-1.16446	N
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1830	SA	250000	F	30	S	35000	0.71686	A
1831	SA	250000	M	18	P	15000	-0.03066	<NA>
1832	SA	250000	F	44	P	7500	-0.70865	U
1833	SA	250000	M	58	P	35000	-1.29617	N
1834	SA	250000	F	30	S	15000	-1.29617	N
1835	SA	250000	F	44	P	7500	-1.22040	N
1836	SA	250000	M	52	P	15000	0.94667	Y
1837	SA	250000	F	30	S	15000	-0.92566	N
1838	SA	250000	M	20	S	15000	-0.27723	U
1839	SA	250000	F	59	P	7500	-0.55051	U
1840	SA	250000	M	18	S	15000	1.20547	Y
1841	SA	250000	M	24	S	35000	1.15313	A
1842	SA	250000	F	39	P	NA	0.47939	U
1843	SA	250000	F	21	S	35000	1.32923	Y
1844	SA	250000	M	49	P	7500	-0.15941	U
1845	SA	250000	M	58	S	35000	0.12745	Y
1846	SA	250000	F	25	S	15000	-1.30809	A
1847	SA	250000	M	21	S	35000	-1.11348	N
1848	SA	250000	F	60	S	15000	0.52689	U
1849	SA	250000	M	54	P	7500	-1.30296	U

1850	SA	250000	F	43	P	7500	-1.29617	N
1851	SA	250000	M	30	S	15000	0.66365	N
1852	SA	250000	M	49	S	35000	-0.95176	N
1853	SA	250000	F	54	P	2500	-0.25607	Y
1854	SA	250000	F	19	S	15000	-0.80563	U
1855	SA	250000	F	36	S	15000	-1.17637	U
1856	SA	250000	F	58	P	15000	0.82026	U
1857	SA	250000	F	32	PS	NA	0.31918	A
1858	SA	250000	M	52	P	75000	-1.07772	<NA>
1859	SA	250000	M	42	S	35000	0.00476	U
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1861	SA	250000	F	44	P	35000	-0.69008	A
1862	SA	250000	F	23	PS	75000	0.17177	Y
1863	SA	250000	M	24	PS	35000	-0.76975	A
1864	SA	250000	M	60	P	35000	1.58770	Y
1865	SA	250000	M	54	P	7500	0.32214	U
1866	SA	250000	M	33	P	2500	-1.29617	<NA>
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1872	SA	250000	F	49	P	35000	0.90167	Y
1873	SA	250000	M	43	PS	75000	1.33092	Y
1874	SA	250000	F	34	PS	75000	-1.22424	N
1875	SA	250000	F	54	P	35000	0.00320	U
1876	SA	250000	M	18	S	35000	-1.30351	N
1877	SA	250000	F	26	S	7500	-1.12120	U
1878	SA	250000	F	68	<NA>	7500	0.88202	Y
1879	SA	250000	M	52	S	7500	1.19812	Y
1880	SA	250000	M	55	S	2500	-1.29617	N
1881	SA	250000	M	23	S	15000	-1.29617	N
1882	SA	250000	M	38	P	15000	-1.19739	N
1883	SA	250000	F	36	P	2500	-1.05197	U
1884	SA	250000	F	46	P	7500	-0.98023	N
1885	SA	250000	F	33	P	7500	-1.12528	N
1886	SA	250000	M	43	S	15000	0.15515	U
1887	SA	250000	M	21	S	35000	0.60084	Y
1888	SA	250000	M	49	P	15000	1.35626	Y
1889	SA	250000	F	21	P	15000	1.19147	Y
1890	SA	250000	F	56	P	7500	0.38583	Y
1891	SA	250000	F	35	P	7500	-0.80037	U
1892	SA	250000	M	18	S	15000	1.02608	Y
1893	SA	250000	F	41	P	2500	-0.41295	U
1894	SA	250000	F	49	P	35000	0.38253	U
1895	SA	250000	M	37	S	35000	-1.29617	N

1896	SA	250000	M	55		P	7500	0.81641	U
1897	SA	250000	F	49		P	2500	1.29338	U
1898	SA	250000	M	22		S	7500	0.87797	N
1899	SA	250000	F	26		S	15000	0.12779	Y
1900	SA	250000	M	51		P	15000	1.47784	Y
1901	SA	250000	F	56		P	15000	-1.29617	N
1902	SA	250000	F	51	<NA>		7500	0.45718	U
1903	SA	250000	F	30		P	15000	1.03464	U
1904	SA	250000	M	45		S	15000	-1.21834	N
1905	SA	250000	M	31		P	35000	-0.53827	U
1906	SA	250000	M	35		P	7500	-0.93981	U
1907	SA	250000	M	53		P	15000	-1.18011	N
1908	SA	250000	M	63		P	35000	-1.29617	N
1909	SA	250000	F	25		S	7500	1.43653	Y
1910	SA	250000	F	40		P	2500	-1.30469	N
1911	SA	250000	F	54		P	7500	-1.21834	N
1912	SA	250000	F	62		P	35000	0.88557	Y
1913	SA	250000	F	19		S	35000	-1.25795	U
1914	SA	250000	M	26		S	15000	-0.71001	N
1915	SA	250000	M	61		P	7500	1.01062	Y
1916	SA	250000	F	67	<NA>		15000	1.05155	Y
1917	SA	250000	M	39		P	15000	-0.72982	A
1918	SA	250000	M	22		P	7500	-0.04564	Y
1919	SA	250000	M	21		S	15000	-1.29617	N
1920	SA	250000	F	59		P	7500	-0.17956	Y
1921	SA	250000	F	37		S	15000	-1.02385	<NA>
1922	SA	250000	M	65		P	15000	0.04302	U
1923	SA	250000	F	61		P	7500	0.54606	Y
1924	SA	250000	F	30		P	7500	-0.25119	U
1925	SA	250000	M	27		S	35000	0.13241	Y
1926	SA	250000	M	60		P	15000	0.55837	Y
1927	SA	250000	M	33		S	75000	-1.19132	A
1928	SA	250000	F	32		S	35000	0.38569	U
1929	SA	250000	F	38		S	35000	-1.04685	U
1930	SA	250000	M	56		P	35000	0.41755	Y
1931	SA	250000	F	45		S	15000	0.89367	Y
1932	SA	250000	F	18		S	35000	0.43887	Y
1933	SA	250000	F	39		S	35000	-0.12671	U
1934	SA	250000	M	57		P	15000	0.53539	U
1935	SA	250000	M	51		P	7500	-1.29617	N
1936	SA	250000	M	32		S	15000	-0.84836	N
1937	SA	250000	M	70		P	35000	0.72449	Y
1938	SA	250000	F	20		S	15000	1.00364	Y
1939	SA	250000	F	46		S	7500	-0.42243	N
1940	SA	250000	F	55		P	35000	-0.55903	N
1941	SA	250000	M	23		S	35000	0.22104	A

1942	SA	250000	F	28	S	15000	-1.29617	N
1943	SA	250000	F	22	S	35000	-1.17702	U
1944	SA	250000	M	23	PS	35000	-1.30351	N
1945	SA	250000	F	37	P	35000	-1.12566	U
1946	SA	250000	M	47	S	15000	-0.80419	U
1947	SA	250000	M	42	P	35000	-0.86525	A
1948	SA	250000	F	47	S	15000	-1.22502	N
1949	SA	250000	F	45	S	125000	-0.60096	U
1950	SA	250000	M	18	S	75000	-1.06848	N
1951	SA	250000	F	27	P	7500	-0.05229	U
1952	SA	250000	F	48	P	35000	0.58275	Y
1953	SA	250000	F	18	S	35000	-1.29617	N
1954	SA	250000	M	44	PS	75000	-0.59351	<NA>
1955	SA	250000	F	33	P	2500	-0.32492	U
1956	SA	250000	M	27	S	7500	-1.34392	N
1957	SA	250000	M	48	P	35000	-1.19504	N
1958	SA	250000	F	45	P	35000	-0.49641	U
1959	SA	250000	F	32	PS	35000	-0.93492	U
1960	SA	250000	M	34	P	15000	-0.17177	U
1961	SA	250000	F	36	PS	35000	0.00055	U
1962	SA	250000	M	49	S	125000	-1.25795	N
1963	SA	250000	F	43	S	35000	0.25319	Y
1964	SA	250000	F	19	S	75000	1.35136	Y
1965	SA	250000	M	24	S	35000	-1.15762	N
1966	SA	250000	M	49	PS	35000	-1.14049	N
1967	SA	250000	M	24	PS	75000	-0.96014	N
1968	SA	250000	M	56	S	75000	-1.10273	N
1969	SA	250000	F	47	P	15000	1.54808	Y
1970	SA	250000	F	35	S	15000	-0.35334	A
1971	SA	250000	M	45	PS	35000	-1.04016	N
1972	SA	250000	F	52	P	35000	1.02747	<NA>
1973	SA	250000	F	26	S	15000	-1.14952	N
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1975	SA	250000	M	20	S	35000	-1.07386	N
1976	SA	250000	F	26	S	125000	0.30352	Y
1977	SA	250000	F	64	P	2500	-1.29617	U
1978	SA	250000	M	41	S	15000	-1.29617	N
1979	SA	250000	M	22	S	35000	0.14497	U
1980	SA	250000	F	42	S	75000	-1.25656	N
1981	SA	250000	F	44	P	2500	-1.29617	N
1982	SA	250000	M	36	P	7500	-1.29617	N
1983	SA	250000	F	24	S	15000	-0.73585	A
1984	SA	250000	M	19	PS	15000	-0.54187	<NA>
1985	SA	250000	M	27	S	15000	-0.37315	N
1986	SA	250000	M	24	PS	15000	-0.65961	N
1987	SA	250000	F	30	S	35000	1.24478	Y

1988	SA	250000	F	21	PS	35000	NA	A
1989	SA	250000	M	47	P	35000	-0.98792	N
1990	SA	250000	F	55	P	15000	-0.10726	Y
1991	SA	250000	F	54	P	7500	-1.29617	N
1992	SA	250000	F	34	P	15000	-1.00272	U
1993	SA	250000	M	30	S	15000	-0.45937	U
1994	SA	250000	M	66	S	35000	-1.31083	<NA>
1995	SA	250000	M	56	P	35000	-0.40479	Y
1996	SA	250000	F	42	S	15000	-0.35685	U
1997	SA	250000	F	43	P	7500	-1.29617	N
1998	SA	250000	M	68	P	7500	-0.70372	N
1999	SA	250000	F	23	PS	75000	0.11608	U
2000	SA	250000	M	33	S	35000	-1.14049	N
2001	SA	250000	F	69	S	35000	0.34293	U
2002	SA	250000	F	22	PS	75000	-1.26305	A
2003	SA	250000	M	33	S	15000	-0.10246	Y
2004	SA	250000	F	42	S	75000	1.26053	U
2005	SA	250000	M	62	S	35000	-0.96901	N
2006	SA	250000	F	20	S	35000	-1.29617	N
2007	SA	250000	M	58	PS	35000	-1.29617	N
2008	SA	250000	M	22	PS	35000	-1.15170	N
2009	SA	250000	M	37	S	35000	-1.03486	N
2010	SA	250000	F	42	S	35000	-1.29617	N
2011	SA	250000	F	36	S	35000	0.59220	Y
2012	SA	250000	F	25	S	35000	-1.08055	A
2013	SA	250000	M	62	S	75000	1.29875	Y
2014	SA	250000	M	34	S	35000	-0.82904	U
2015	SA	250000	F	55	P	7500	1.15429	U
2016	SA	250000	M	33	PS	75000	-0.86276	N
2017	SA	250000	M	45	S	35000	1.19997	Y
2018	SA	250000	M	60	S	35000	1.58770	Y
2019	SA	250000	F	27	S	7500	-1.29617	N
2020	SA	250000	F	50	S	75000	1.58770	Y
2021	SA	250000	F	58	P	7500	0.31110	<NA>
2022	SA	250000	M	22	S	35000	-0.78022	U
2023	SA	250000	F	35	P	15000	-0.51037	U
2024	SA	250000	M	60	P	NA	0.04343	U
2025	SA	250000	M	28	S	7500	-1.29617	N
2026	SA	250000	M	63	P	35000	1.18876	Y
2027	SA	250000	F	27	P	7500	-1.29617	A
2028	SA	250000	M	50	S	35000	-1.23032	U
2029	SA	250000	F	42	P	75000	0.90769	U
2030	SA	250000	M	24	PS	35000	1.41464	Y
2031	SA	250000	F	24	PS	35000	0.06047	A
2032	SA	250000	F	36	P	15000	0.07043	<NA>
2033	SA	250000	M	28	S	35000	0.03189	U

2034	SA	250000	M	70	S	15000	-0.35884	<NA>
2035	SA	250000	F	36	S	35000	1.10920	U
2036	SA	250000	M	64	P	2500	-0.23703	U
2037	SA	250000	F	48	P	15000	-0.16364	A
2038	SA	250000	M	44	PS	15000	-0.32082	U
2039	SA	250000	F	30	S	35000	-0.22533	A
2040	SA	250000	M	26	S	NA	1.61195	U
2041	SA	250000	F	43	P	7500	0.13591	Y
2042	SA	250000	F	50	P	15000	0.55670	U
2043	SA	250000	M	60	P	35000	-0.88715	N
2044	SA	250000	F	22	P	7500	-0.63484	U
2045	SA	250000	M	23	P	7500	-1.10367	N
2046	SA	250000	F	60	P	2500	0.36597	Y
2047	SA	250000	M	19	S	15000	-1.29617	N
2048	SA	250000	F	39	S	7500	-0.56363	U
2049	SA	250000	M	38	P	15000	-0.40009	N
2050	SA	250000	M	37	S	7500	-0.66692	N
2051	SA	250000	M	35	P	15000	-1.29617	N
2052	SA	250000	M	59	S	35000	-1.29617	N
2053	SA	250000	F	35	P	35000	-1.13471	A
2054	SA	250000	F	68	P	2500	-1.04685	N
2055	SA	250000	F	42	P	15000	-0.62868	U
2056	SA	250000	M	25	S	15000	0.45660	Y
2057	SA	250000	F	28	P	7500	-1.29617	N
2058	SA	250000	F	45	P	15000	-0.42882	N
2059	SA	250000	F	38	P	15000	-0.77140	U
2060	SA	250000	M	64	P	NA	-0.25612	A
2061	SA	250000	F	23	PS	35000	-0.87985	U
2062	SA	250000	F	46	S	35000	-1.29617	N
2063	SA	250000	M	68	S	15000	1.58770	Y
2064	SA	250000	M	65	S	NA	-0.03639	<NA>
2065	SA	250000	M	21	PS	75000	0.44665	A
2066	SA	250000	M	25	PS	35000	1.36539	Y
2067	SA	250000	F	36	S	35000	-1.29617	U
2068	SA	250000	M	68	P	15000	1.52184	<NA>
2069	SA	250000	F	22	PS	35000	0.15722	A
2070	SA	250000	F	61	S	35000	-1.29617	N
2071	SA	250000	M	19	S	7500	0.47772	A
2072	SA	250000	M	62	P	35000	-1.21834	N
2073	SA	250000	F	40	P	15000	1.58770	Y
2074	SA	250000	F	21	PS	35000	-1.72594	N
2075	SA	250000	M	37	P	35000	1.36478	<NA>
2076	SA	250000	F	25	P	7500	1.51869	Y
2077	SA	250000	M	35	S	35000	-0.89647	U
2078	SA	250000	F	40	P	7500	1.58770	Y
2079	SA	250000	F	43	S	2500	0.80245	N

2080	SA	250000	M	64	P	7500	-0.91383	U
2081	SA	250000	F	35	S	35000	1.14250	Y
2082	SA	250000	M	67	P	NA	1.38110	Y
2083	SA	250000	F	23	PS	35000	1.51515	Y
2084	SA	250000	F	39	P	75000	0.38980	Y
2085	SA	250000	M	18	PS	75000	1.40042	Y
2086	SA	250000	M	54	S	35000	1.46885	Y
2087	SA	250000	F	21	S	35000	-0.37796	<NA>
2088	SA	250000	M	34	S	75000	0.49205	<NA>
2089	SA	250000	M	42	S	125000	-1.21050	N
2090	SA	250000	F	42	S	7500	-0.93171	N
2091	SA	250000	F	60	P	7500	1.37276	Y
2092	SA	250000	F	31	S	15000	-1.29617	A
2093	SA	250000	M	60	P	7500	0.09968	Y
2094	SA	250000	M	20	P	15000	-1.10678	N
2095	SA	250000	M	25	P	7500	-1.07069	N
2096	SA	250000	M	30	P	7500	0.99912	Y
2097	SA	250000	F	35	S	15000	-0.24978	N
2098	SA	250000	M	65	P	35000	-0.97492	N
2099	SA	250000	F	62	PS	15000	-1.06935	A
2100	SA	250000	F	50	S	75000	0.15413	Y
2101	SA	250000	F	20	S	35000	-0.73822	U
2102	SA	250000	M	24	P	15000	-1.26247	N
2103	SA	250000	F	61	P	2500	-1.18602	A
2104	SA	250000	M	44	P	35000	-0.16244	U
2105	SA	250000	M	59	P	7500	-0.97169	U
2106	SA	250000	F	23	P	7500	0.87023	Y
2107	SA	250000	M	22	S	35000	1.17630	U
2108	SA	250000	M	45	P	35000	0.20171	Y
2109	SA	250000	F	40	S	35000	-1.29617	N
2110	SA	250000	F	66	P	35000	-1.29617	N
2111	SA	250000	M	60	P	75000	1.55399	Y
2112	SA	250000	F	29	S	15000	-0.92834	A
2113	SA	250000	F	38	S	NA	0.51284	U
2114	SA	250000	M	31	S	15000	1.16822	Y
2115	SA	250000	F	29	S	75000	-0.78516	U
2116	SA	250000	M	24	S	15000	-0.67418	Y
2117	SA	250000	M	59	P	35000	1.27849	Y
2118	SA	250000	F	29	S	75000	1.40361	Y
2119	SA	250000	F	48	P	15000	-0.05921	U
2120	SA	250000	F	45	P	35000	-1.03643	A
2121	SA	250000	M	63	P	7500	-0.20918	<NA>
2122	SA	250000	F	23	S	35000	-1.15795	N
2123	SA	250000	M	70	P	7500	-1.25795	N
2124	SA	250000	M	34	PS	35000	-1.21777	N
2125	SA	250000	F	52	P	15000	-1.22954	U

2126	SA	250000	F	23	PS	15000	-1.14049	N
2127	SA	250000	M	18	S	35000	-1.25795	N
2128	SA	250000	F	46	<NA>	15000	-1.29617	N
2129	SA	250000	F	58	P	7500	1.37986	U
2130	SA	250000	M	67	P	15000	-1.26290	U
2131	SA	250000	F	23	P	7500	-0.26963	N
2132	SA	250000	M	43	P	15000	0.16466	U
2133	SA	250000	M	18	S	7500	-0.79979	Y
2134	SA	250000	M	43	P	75000	1.44541	Y
2135	SA	250000	F	45	P	35000	-1.06673	U
2136	SA	250000	F	57	P	7500	0.11796	U
2137	SA	250000	F	23	S	35000	-1.16369	N
2138	SA	250000	F	45	P	15000	1.42782	U
2139	SA	250000	M	37	P	15000	0.50129	N
2140	SA	250000	M	24	S	35000	1.25589	Y
2141	SA	250000	F	40	P	35000	-0.97614	N
2142	SA	250000	F	35	P	7500	1.54808	Y
2143	SA	250000	M	27	S	7500	0.19955	N
2144	SA	250000	M	45	P	35000	1.51515	Y
2145	SA	250000	M	43	P	2500	0.51876	A
2146	SA	250000	F	32	P	7500	-0.05572	A
2147	SA	250000	F	57	P	2500	0.19502	U
2148	SA	250000	M	28	S	15000	-0.86034	A
2149	SA	250000	F	46	P	15000	0.96365	Y
2150	SA	250000	M	38	S	2500	-0.96979	U
2151	SA	250000	F	25	S	15000	1.05131	Y
2152	SA	250000	M	18	S	15000	-0.88433	N
2153	SA	250000	F	39	P	15000	-1.20559	U
2154	SA	250000	M	44	S	7500	-0.07422	U
2155	SA	250000	M	46	P	15000	-1.10080	N
2156	SA	250000	F	20	P	7500	-1.21974	N
2157	SA	250000	F	60	P	15000	-1.11727	U
2158	SA	250000	M	20	S	35000	0.39838	U
2159	SA	250000	F	55	P	2500	-1.19286	N
2160	SA	250000	M	70	P	7500	0.18178	U
2161	SA	250000	F	18	S	15000	0.10006	U
2162	SA	250000	F	50	P	15000	0.14497	U
2163	SA	250000	M	38	P	35000	-1.21834	N
2164	SA	250000	M	55	P	35000	-1.21834	N
2165	SA	250000	M	18	S	35000	1.12067	Y
2166	SA	250000	F	21	S	15000	-1.10757	<NA>
2167	SA	250000	F	40	P	35000	0.33514	Y
2168	SA	250000	M	21	S	35000	-1.21834	N
2169	SA	250000	M	49	P	15000	-1.21834	N
2170	SA	250000	M	37	S	15000	-1.04094	Y
2171	SA	250000	M	37	S	35000	1.04274	U

2172	SA	250000	M	36	S	15000	-1.18151	N
2173	SA	250000	F	24	S	7500	-1.29617	N
2174	SA	250000	M	25	PS	15000	-0.91941	N
2175	SA	250000	F	58	P	7500	1.53680	Y
2176	SA	250000	F	54	S	35000	1.47476	Y
2177	SA	250000	M	53	S	35000	-1.04440	N
2178	SA	250000	F	20	S	NA	-1.05006	N
2179	SA	250000	M	19	S	35000	-1.14719	N
2180	SA	250000	M	59	P	35000	0.20745	Y
2181	SA	250000	F	36	P	35000	-1.17871	N
2182	SA	250000	F	31	S	15000	0.93119	Y
2183	SA	250000	M	18	S	7500	1.18721	U
2184	SA	250000	M	43	P	15000	-0.92939	U
2185	SA	250000	M	27	S	15000	1.18527	U
2186	SA	250000	F	25	S	7500	1.15350	U
2187	SA	250000	F	45	P	15000	-1.29617	N
2188	SA	250000	M	18	S	35000	1.23212	Y
2189	SA	250000	M	38	P	15000	1.29875	Y
2190	SA	250000	M	66	P	15000	-0.91715	U
2191	SA	250000	M	55	P	15000	-1.29617	A
2192	SA	250000	F	37	P	15000	-0.29711	U
2193	SA	250000	F	39	P	15000	-0.76404	N
2194	SA	250000	M	65	P	2500	1.54947	Y
2195	SA	250000	M	29	S	15000	-0.14864	A
2196	SA	250000	M	39	P	15000	-0.45208	N
2197	SA	250000	F	27	S	15000	-1.29617	N
2198	SA	250000	F	58	S	15000	0.91960	<NA>
2199	SA	250000	F	48	S	15000	-1.25656	A
2200	SA	250000	M	18	S	15000	-0.42745	N
2201	SA	250000	M	27	PS	75000	-1.17723	N
2202	SA	250000	F	56	S	125000	-1.27876	A
2203	SA	250000	F	21	S	7500	-0.36225	A
2204	SA	250000	M	36	PS	75000	1.44593	Y
2205	SA	250000	M	61	P	35000	1.28789	<NA>
2206	SA	250000	F	28	S	15000	-0.60491	Y
2207	SA	250000	F	33	PS	35000	-0.67038	N
2208	SA	250000	F	51	P	35000	1.33090	Y
2209	SA	250000	M	51	PS	35000	-1.02895	N
2210	SA	250000	M	22	PS	15000	-0.55476	N
2211	SA	250000	F	25	P	15000	-1.10496	U
2212	SA	250000	F	36	P	7500	-0.39733	N
2213	SA	250000	F	45	S	35000	-1.29617	N
2214	SA	250000	M	21	P	7500	-1.29617	N
2215	SA	250000	M	38	P	7500	-1.14103	N
2216	SA	250000	F	28	PS	7500	-0.90906	N
2217	SA	250000	M	68	P	75000	-1.10507	U

2218	SA	250000	F	36	P	35000	-0.98083	U
2219	SA	250000	F	40	S	15000	-1.29617	N
2220	SA	250000	M	22	PS	15000	-1.23070	N
2221	SA	250000	M	67	PS	35000	0.10540	<NA>
2222	SA	250000	M	28	PS	125000	-1.29617	N
2223	SA	250000	M	53	P	NA	1.40039	Y
2224	SA	250000	F	58	P	35000	0.93995	U
2225	SA	250000	F	26	S	15000	-0.30841	U
2226	SA	250000	F	69	S	35000	0.26058	U
2227	SA	250000	F	28	PS	35000	-0.86230	U
2228	SA	250000	F	66	P	15000	0.64595	U
2229	SA	250000	M	51	S	35000	1.53157	Y
2230	SA	250000	M	18	S	75000	-0.65243	U
2231	SA	250000	M	68	S	200000	1.48145	Y
2232	SA	250000	M	63	S	35000	1.33680	Y
2233	SA	250000	F	24	S	35000	-0.10004	A
2234	SA	250000	F	43	S	15000	-0.75506	U
2235	SA	250000	M	22	PS	35000	-0.92939	N
2236	SA	250000	M	19	S	125000	-1.04221	N
2237	SA	250000	F	53	P	15000	-0.36198	U
2238	SA	250000	F	21	S	35000	-0.79353	N
2239	SA	250000	M	40	PS	75000	1.58770	Y
2240	SA	250000	F	70	PS	75000	0.07535	U
2241	SA	250000	F	42	S	75000	0.04202	A
2242	SA	250000	F	29	S	15000	-1.25656	N
2243	SA	250000	M	32	S	NA	1.26582	<NA>
2244	SA	250000	M	60	S	75000	-1.10502	N
2245	SA	250000	M	44	S	35000	0.04743	U
2246	SA	250000	F	62	P	15000	1.58770	Y
2247	SA	250000	F	24	PS	35000	-1.29617	N
2248	SA	250000	M	25	PS	7500	-1.21974	N
2249	SA	250000	F	48	P	15000	0.19060	A
2250	SA	250000	M	47	S	75000	-0.92313	<NA>
2251	SA	250000	F	59	S	35000	-0.74848	A
2252	SA	250000	M	68	S	35000	-1.25795	N
2253	SA	250000	F	26	S	35000	-1.10757	N
2254	SA	250000	M	57	S	75000	1.40361	Y
2255	SA	250000	M	19	S	15000	-1.25795	N
2256	SA	250000	F	22	S	35000	-0.44948	N
2257	SA	250000	F	54	P	15000	-1.14049	N
2258	SA	250000	F	67	S	7500	-0.11911	N
2259	SA	250000	M	65	P	75000	-1.08055	N
2260	SA	250000	M	33	P	15000	0.69205	U
2261	SA	250000	F	46	S	15000	1.01625	Y
2262	SA	250000	F	55	S	75000	-1.29617	N
2263	SA	250000	F	20	S	35000	-1.25795	N

2264	SA	250000	M	45	S	15000	0.57007	Y
2265	SA	250000	M	29	S	15000	-1.18323	N
2266	SA	250000	M	36	S	7500	-1.29617	N
2267	SA	250000	F	64	P	35000	-1.29617	N
2268	SA	250000	M	20	S	15000	-0.81078	N
2269	SA	250000	F	67	P	7500	-0.99558	N
2270	SA	250000	F	27	S	15000	-1.29617	N
2271	SA	250000	M	59	P	7500	-1.29617	N
2272	SA	250000	M	25	PS	35000	-1.18011	N
2273	SA	250000	F	23	PS	35000	-1.29617	N
2274	SA	250000	F	60	S	15000	-0.32866	U
2275	SA	250000	F	48	S	75000	-1.14579	N
2276	SA	250000	F	28	S	15000	-0.78735	Y
2277	SA	250000	F	48	P	7500	-1.03937	U
2278	SA	250000	M	45	S	15000	-1.14049	N
2279	SA	250000	M	26	S	15000	-0.93530	N
2280	SA	250000	F	37	P	35000	-1.18011	N
2281	SA	250000	F	24	S	35000	0.13025	N
2282	SA	250000	M	32	S	75000	0.27062	U
2283	SA	250000	F	38	PS	35000	-1.14049	N
2284	SA	250000	M	63	S	75000	-1.00723	U
2285	SA	250000	M	38	PS	75000	-1.29617	A
2286	SA	250000	M	36	PS	125000	-1.02263	N
2287	SA	250000	F	39	S	75000	-0.92939	U
2288	SA	250000	F	32	PS	75000	-1.29617	U
2289	SA	250000	M	35	S	75000	-0.01265	U
2290	SA	250000	F	37	PS	35000	-1.29617	N
2291	SA	250000	M	42	P	15000	-1.23032	N
2292	SA	250000	M	30	S	35000	-0.89647	U
2293	SA	250000	F	20	S	35000	-1.00607	U
2294	SA	250000	F	57	P	35000	1.32047	Y
2295	SA	250000	M	47	P	35000	-1.21834	N
2296	SA	250000	F	45	S	7500	-1.04094	N
2297	SA	250000	F	20	S	35000	-1.29617	N
2298	SA	250000	F	38	PS	15000	-0.95617	U
2299	SA	250000	M	47	P	35000	-1.14049	N
2300	SA	250000	M	22	S	35000	-1.21834	N
2301	SA	250000	F	21	S	15000	-0.64023	U
2302	SA	250000	F	36	P	35000	0.18690	U
2303	SA	250000	M	24	P	35000	-1.29617	N
2304	SA	250000	M	48	P	7500	0.51408	U
2305	SA	250000	M	40	S	15000	-0.37943	U
2306	SA	250000	F	19	S	15000	-0.68396	N
2307	SA	250000	M	43	P	35000	-1.10500	N
2308	SA	250000	M	24	P	15000	-1.29617	N
2309	SA	250000	F	58	P	15000	-0.16141	Y

2310	SA	250000	F	40	P	7500	1.46120	U
2311	SA	250000	F	30	S	75000	-0.61249	N
2312	SA	250000	M	39	S	35000	0.95428	U
2313	SA	250000	F	37	PS	75000	-0.49725	N
2314	SA	250000	M	65	S	75000	0.61694	Y
2315	SA	250000	M	26	S	75000	-0.90783	N
2316	SA	250000	F	69	S	75000	1.58770	Y
2317	SA	250000	F	39	P	15000	-0.00248	U
2318	SA	250000	M	21	PS	75000	0.82279	Y
2319	SA	250000	F	30	S	125000	0.86028	Y
2320	SA	250000	M	62	S	125000	1.54808	Y
2321	SA	250000	F	62	P	35000	1.21020	<NA>
2322	SA	250000	M	30	S	75000	0.45050	N
2323	SA	250000	M	40	PS	35000	-1.07812	N
2324	SA	250000	F	26	PS	125000	-1.21834	N
2325	SA	250000	F	40	PS	125000	-0.97431	U
2326	SA	250000	M	50	PS	35000	-0.89595	N
2327	SA	250000	M	21	S	15000	-0.42948	N
2328	SA	250000	F	39	S	15000	1.58770	Y
2329	SA	250000	F	18	S	200000	-1.21834	N
2330	SA	250000	M	51	S	125000	-0.77762	N
2331	SA	250000	M	59	S	15000	0.15666	<NA>
2332	SA	250000	M	52	P	15000	-1.29617	N
2333	SA	250000	F	57	P	15000	-1.07801	U
2334	SA	250000	M	20	S	15000	-0.57538	Y
2335	SA	250000	F	29	S	35000	-1.23667	N
2336	SA	250000	F	29	S	15000	-0.49050	U
2337	SA	250000	F	37	S	35000	0.56853	U
2338	SA	250000	M	39	P	35000	-1.29617	N
2339	SA	250000	F	36	S	7500	-1.29617	<NA>
2340	SA	250000	M	18	S	75000	0.12997	Y
2341	SA	250000	F	44	S	125000	0.59566	Y
2342	SA	250000	M	18	S	125000	-1.04094	A
2343	SA	250000	F	32	PS	35000	-1.21640	N
2344	SA	250000	M	41	PS	75000	-1.21834	N
2345	SA	250000	F	25	PS	35000	1.47725	Y
2346	SA	250000	F	50	PS	35000	-1.21695	N
2347	SA	250000	M	19	S	125000	-1.21923	U
2348	SA	250000	M	43	PS	200000	-1.19755	N
2349	SA	250000	M	37	PS	125000	-1.29617	N
2350	SA	250000	F	30	PS	200000	-1.14799	N
2351	SA	250000	F	25	PS	125000	0.12788	A
2352	SA	250000	F	54	S	200000	-1.07456	N
2353	SA	250000	M	36	PS	15000	-0.79562	N
2354	SA	250000	F	45	PS	125000	-0.89052	N
2355	SA	250000	M	33	PS	35000	0.49274	Y

2356	SA	250000	M	36	S	125000	-1.01959	N
2357	SA	250000	F	25	PS	200000	-0.70916	Y
2358	SA	250000	M	19	S	75000	-0.20230	N
2359	SA	250000	F	51	S	75000	0.79215	Y
2360	SA	250000	F	59	S	7500	0.34139	U
2361	SA	250000	F	44	P	15000	-0.98019	U
2362	SA	250000	F	24	S	35000	1.35051	U
2363	SA	250000	M	40	P	35000	0.80029	U
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2365	SA	250000	M	35	S	35000	0.56362	U
2366	SA	250000	M	54	P	2500	-0.76673	U
2367	SA	250000	M	19	P	15000	0.81038	N
2368	SA	250000	F	59	P	15000	1.17809	Y
2369	SA	250000	F	43	P	2500	0.19986	U
2370	SA	250000	F	21	S	7500	-1.28924	N
2371	SA	250000	M	45	P	15000	-0.25284	Y
2372	SA	250000	F	18	S	15000	-1.11716	N
2373	SA	250000	F	39	PS	35000	1.51307	Y
2374	SA	250000	F	56	PS	35000	0.83550	Y
2375	SA	250000	M	25	S	35000	-1.10496	N
2376	SA	250000	M	20	P	7500	-1.14301	N
2377	SA	250000	F	23	P	15000	0.43730	Y
2378	SA	250000	F	48	P	7500	-1.20796	U
2379	SA	250000	M	52	S	7500	-0.54071	Y
2380	SA	250000	M	37	PS	35000	1.45597	Y
2381	SA	250000	F	49	P	35000	1.49042	<NA>
2382	SA	250000	F	32	S	15000	0.28981	U
2383	SA	250000	M	25	S	35000	-0.70525	N
2384	SA	250000	M	51	P	15000	1.39910	Y
2385	SA	250000	F	41	P	15000	-0.88148	U
2386	SA	250000	M	39	P	35000	1.09571	U
2387	SA	250000	F	45	S	7500	-1.07386	U
2388	SA	250000	M	20	S	15000	-0.40275	N
2389	SA	250000	F	21	S	15000	-1.15838	U
2390	SA	250000	M	70	P	15000	1.48678	Y
2391	SA	250000	M	36	S	15000	0.20902	A
2392	SA	250000	F	42	P	15000	0.03978	U
2393	SA	250000	F	43	S	15000	-1.21834	N
2394	SA	250000	F	20	S	15000	-0.58372	N
2395	SA	250000	M	34	S	35000	-0.65956	N
2396	SA	250000	M	60	P	2500	0.81317	Y
2397	SA	250000	M	36	S	35000	-1.27270	U
2398	SA	250000	M	21	S	15000	-0.31678	Y
2399	SA	250000	F	20	S	15000	-1.21974	N
2400	SA	250000	F	36	S	15000	-0.78437	U
2401	SA	250000	F	62	P	35000	0.19019	Y

2402	SA	250000	F	20	S	35000	-1.25795	N
2403	SA	250000	M	38	S	200000	-0.79330	N
2404	SA	250000	M	20	PS	75000	-1.11878	N
2405	SA	250000	M	35	PS	200000	1.26920	Y
2406	SA	250000	M	18	S	200000	0.53171	N
2407	SA	250000	F	29	S	75000	-0.16923	U
2408	SA	250000	F	18	S	125000	-1.14640	N
2409	SA	250000	F	43	S	75000	-0.08924	A
2410	SA	250000	M	42	PS	75000	1.16774	Y
2411	SA	250000	F	27	PS	200000	-1.10282	N
2412	SA	250000	M	32	PS	125000	-1.21974	N
2413	SA	250000	M	63	S	75000	0.49426	N
2414	SA	250000	F	36	PS	75000	0.18235	Y
2415	SA	250000	M	36	S	125000	0.51557	N
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2417	SA	250000	M	69	S	125000	1.38413	Y
2418	SA	250000	F	31	S	200000	-0.65985	N
2419	SA	250000	F	58	S	125000	0.88530	U
2420	SA	250000	F	42	S	125000	1.55399	Y
2421	SA	250000	F	22	PS	35000	-1.01283	N
2422	SA	250000	F	57	PS	15000	-1.29617	N
2423	SA	250000	F	43	PS	125000	-0.68084	N
2424	SA	250000	M	41	PS	75000	0.91259	Y
2425	SA	250000	M	57	S	200000	0.04134	<NA>
2426	SA	250000	M	28	PS	75000	-0.83829	N
2427	SA	250000	F	20	PS	200000	1.40361	Y
2428	SA	250000	F	24	PS	125000	-1.04256	N
2429	SA	250000	F	45	PS	200000	0.92804	<NA>
2430	SA	250000	M	42	PS	125000	-1.29617	N
2431	SA	250000	M	61	PS	75000	1.55477	Y
2432	SA	250000	M	34	PS	125000	0.54349	N
2433	SA	250000	F	26	PS	200000	0.86287	Y
2434	SA	250000	F	60	PS	200000	1.39831	Y
2435	SA	250000	F	36	PS	200000	1.04278	Y
2436	SA	250000	F	41	PS	200000	-0.31354	U
2437	SA	250000	M	67	PS	200000	1.44244	Y
2438	SA	250000	F	19	PS	NA	-0.29410	Y
2439	SA	250000	F	50	S	200000	1.01542	Y
2440	SA	250000	M	46	PS	200000	0.82460	Y
2441	SA	250000	F	57	S	NA	-0.62930	A
2442	SA	250000	F	42	PS	35000	-1.10454	N
2443	SA	250000	M	42	PS	NA	1.34448	Y
2444	SA	250000	F	19	S	NA	-0.79884	N
2445	SA	250000	F	42	S	35000	-1.48144	<NA>
2446	SA	250000	F	63	P	7500	0.02698	<NA>
2447	SA	250000	F	46	S	125000	-1.02597	N

2448	SA	250000	F	31	S	75000	-1.21862	N
2449	SA	250000	M	70	S	35000	0.46760	<NA>
2450	SA	250000	M	28	PS	200000	1.21705	Y
2451	SA	250000	F	54	PS	15000	0.81109	Y
2452	SA	250000	F	36	PS	200000	-1.29617	N
2453	SA	250000	M	38	PS	NA	1.39381	Y
2454	SA	250000	F	45	S	200000	-1.00115	A
2455	SA	250000	F	30	S	125000	-0.19523	<NA>
2456	SA	250000	M	69	PS	75000	0.13858	<NA>
2457	SA	250000	F	59	P	15000	0.88849	Y
2458	SA	250000	M	22	S	NA	-0.15216	N
2459	SA	250000	F	45	P	7500	0.51627	N
2460	SA	250000	F	24	PS	200000	-1.14049	N
2461	SA	250000	F	47	S	125000	1.07339	Y
2462	SA	250000	M	31	PS	200000	1.44322	<NA>
2463	SA	250000	M	46	PS	200000	-0.66689	N
2464	SA	250000	F	21	PS	35000	-1.29617	N
2465	SA	250000	F	39	PS	200000	-1.25656	N
2466	SA	250000	F	36	S	75000	-0.94168	N
2467	SA	250000	F	58	S	35000	-0.40122	N
2468	SA	250000	M	53	S	125000	-1.02950	N
2469	SA	250000	F	26	PS	125000	-1.21834	N
2470	SA	250000	F	22	S	NA	0.90393	U
2471	SA	250000	M	19	PS	200000	1.51858	Y
2472	SA	250000	M	53	PS	200000	-0.30982	U
2473	SA	250000	M	55	S	200000	1.27096	Y
2474	SA	250000	F	23	PS	200000	0.64011	Y
2475	SA	250000	F	58	S	125000	1.13480	Y
2476	SA	250000	M	60	PS	200000	1.21964	Y
2477	SA	250000	F	68	S	75000	0.84667	Y
2478	SA	250000	F	35	PS	200000	0.77110	Y
2479	SA	250000	M	27	PS	200000	1.29798	Y
2480	SA	250000	F	25	PS	125000	1.39006	Y
2481	SA	250000	F	62	S	35000	-0.95218	U
2482	SA	250000	M	70	PS	125000	-1.06052	N
2483	SA	250000	M	21	PS	200000	0.43376	Y
2484	SA	250000	F	35	PS	125000	1.15286	Y
2485	SA	250000	F	35	PS	200000	-0.93773	N
2486	SA	250000	M	22	PS	NA	-0.01630	N
2487	SA	250000	F	27	PS	200000	0.97308	Y
2488	SA	250000	F	40	PS	200000	0.94765	N
2489	SA	250000	F	62	P	75000	0.73707	<NA>
2490	SA	250000	M	44	PS	200000	0.47231	Y
2491	SA	250000	M	40	P	15000	1.26093	Y
2492	SA	250000	F	27	P	7500	1.34623	U
2493	SA	250000	F	42	S	35000	0.13769	U

2494	SA	250000	M	29	S	35000	1.47615	Y
2495	SA	250000	F	42	S	15000	-0.15878	U
2496	SA	250000	M	23	S	15000	-1.29617	N
2497	SA	250000	F	53	P	15000	0.47051	U
2498	SA	250000	F	53	P	35000	0.13118	Y
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2501	SA	250000	M	39	PS	200000	1.33168	Y
2502	SA	250000	M	25	PS	125000	1.32577	Y
2503	SA	250000	F	64	S	35000	1.14675	Y
2504	SA	250000	F	30	PS	200000	-0.23212	U
2505	SA	250000	F	27	PS	125000	0.29437	N
2506	SA	250000	M	33	PS	75000	-1.11336	N
2507	SA	250000	M	59	PS	35000	-0.98643	N
2508	SA	250000	F	57	PS	75000	-0.62986	N
2509	SA	250000	F	28	PS	125000	1.51437	Y
2510	SA	250000	F	38	PS	125000	0.00744	U
2511	SA	250000	F	65	S	75000	-1.27270	N
2512	SA	250000	F	24	PS	75000	-0.45879	N
2513	SA	250000	M	18	S	125000	0.98460	Y
2514	SA	250000	M	45	PS	200000	1.14072	Y
2515	SA	250000	F	59	S	200000	-0.56959	N
2516	SA	250000	F	36	S	125000	-1.04040	N
2517	SA	250000	M	26	PS	75000	-0.41596	N
2518	SA	250000	F	24	S	75000	-0.84257	A
2519	SA	250000	F	44	PS	200000	-1.09949	N
2520	SA	250000	M	36	PS	200000	1.24045	Y
2521	SA	250000	F	19	PS	15000	-1.08103	U
2522	SA	250000	M	18	S	75000	0.01777	<NA>
2523	SA	250000	M	36	PS	35000	-0.59471	U
2524	SA	250000	F	37	P	15000	-1.25795	A
2525	SA	250000	M	65	PS	35000	-0.72986	U
2526	SA	250000	M	25	S	35000	-0.50191	N
2527	SA	250000	M	42	PS	35000	-1.29617	N
2528	SA	250000	F	48	S	15000	-0.69361	U
2529	SA	250000	F	64	P	35000	0.33848	U
2530	SA	250000	F	21	S	7500	-1.29617	U
2531	SA	250000	M	40	S	15000	-1.11196	N
2532	SA	250000	F	18	PS	75000	-0.89384	N
2533	SA	250000	M	18	S	35000	-0.29008	A
2534	SA	250000	M	70	P	35000	0.83966	U
2535	SA	250000	F	70	S	7500	0.63256	Y
2536	SA	250000	M	36	S	35000	1.12501	Y
2537	SA	250000	F	37	S	35000	1.58770	Y
2538	SA	250000	M	32	S	125000	0.63720	Y
2539	SA	250000	F	23	S	35000	-0.72594	U

2540	SA	250000	M	70	S	35000	0.67226	<NA>
2541	SA	250000	F	51	P	7500	1.50846	Y
2542	SA	250000	F	44	S	35000	0.69340	<NA>
2543	SA	250000	F	24	P	15000	0.47213	Y
2544	SA	250000	M	67	S	7500	1.54808	Y
2545	SA	250000	M	18	S	NA	1.06160	Y
2546	SA	250000	F	66	P	7500	0.59034	U
2547	SA	250000	M	22	P	NA	0.14292	<NA>
2548	SA	250000	F	42	P	15000	NA	U
2549	SA	250000	F	26	S	15000	0.08900	U
2550	SA	250000	M	66	P	7500	-1.06805	<NA>
2551	SA	250000	M	43	PS	15000	-0.73756	N
2552	SA	250000	F	21	PS	7500	-1.15231	N
2553	SA	250000	F	54	P	15000	-1.29617	N
2554	SA	250000	F	57	P	2500	-1.18463	N
2555	SA	250000	M	21	S	NA	-1.29617	N
2556	SA	250000	M	33	S	15000	-1.29617	N
2557	SA	250000	F	49	P	35000	0.28030	Y
2558	SA	250000	M	40	S	7500	-0.65770	<NA>
2559	SA	250000	F	49	P	35000	-1.29617	N
2560	SA	250000	F	18	S	15000	1.25462	Y
2561	SA	250000	M	23	S	NA	-1.26942	N
2562	SA	250000	F	44	P	7500	-1.29617	N
2563	SA	250000	F	23	S	7500	-1.29617	N
2564	SA	250000	F	37	S	15000	-0.88301	U
2565	SA	250000	M	48	P	NA	1.45187	Y
2566	SA	250000	M	65	S	35000	-1.25656	N
2567	SA	250000	M	53	PS	NA	0.54450	U
2568	SA	250000	F	47	S	75000	0.86660	Y
2569	SA	250000	F	18	S	75000	0.88085	Y
2570	SA	250000	M	26	PS	NA	-1.29617	N
2571	SA	250000	F	68	P	15000	-0.94732	Y
2572	SA	250000	F	34	S	15000	-0.13523	N
2573	SA	250000	M	19	PS	15000	-0.43799	U
2574	SA	250000	F	37	P	35000	-1.06713	N
2575	SA	250000	M	46	S	15000	-0.03259	U
2576	SA	250000	F	56	P	7500	-1.08236	A
2577	SA	250000	M	43	P	15000	1.31037	U
2578	SA	250000	F	24	PS	35000	-0.27129	U
2579	SA	250000	M	40	P	7500	-0.74140	Y
2580	SA	250000	M	23	S	7500	-0.69755	<NA>
2581	SA	250000	F	45	S	15000	-0.23627	U
2582	SA	250000	F	70	S	NA	1.50394	Y
2583	SA	250000	M	46	PS	125000	0.35459	Y
2584	SA	250000	F	25	S	15000	0.46676	U
2585	SA	250000	M	23	S	75000	-1.06529	N

2586	SA	250000	F	39	S	35000	-0.32437	U
2587	SA	250000	M	70	S	35000	-0.96744	N
2588	SA	250000	M	21	PS	15000	-0.57825	N
2589	SA	250000	M	64	S	35000	-1.29617	N
2590	SA	250000	F	18	S	7500	0.30916	N
2591	SA	250000	M	60	S	35000	-0.99525	N
2592	SA	250000	M	21	S	35000	-0.15297	N
2593	SA	250000	F	29	PS	15000	1.11064	Y
2594	SA	250000	F	36	S	35000	0.28844	Y
2595	SA	250000	F	62	S	15000	1.35000	Y
2596	SA	250000	M	40	PS	15000	-1.14640	A
2597	SA	250000	F	44	P	7500	1.20702	Y
2598	SA	250000	F	21	S	35000	-1.25795	N
2599	SA	250000	M	34	S	15000	-0.77873	N
2600	SA	250000	M	39	<NA>	NA	1.00817	Y
2601	M	62500	M	52	P	35000	1.58770	Y
2602	M	62500	F	33	P	125000	1.59296	Y
2603	M	62500	F	36	PS	15000	1.28539	Y
2604	M	62500	F	60	P	2500	0.14736	Y
2605	M	62500	M	32	P	7500	0.62706	A
2606	M	62500	M	34	S	15000	1.47693	Y
2607	M	62500	F	29	P	15000	0.96567	Y
2608	M	62500	F	32	P	2500	-1.16306	N
2609	M	62500	F	46	P	7500	-1.22114	Y
2610	M	62500	M	51	S	7500	1.58770	<NA>
2611	M	62500	M	39	S	35000	0.76436	Y
2612	M	62500	M	24	S	NA	0.13073	<NA>
2613	M	62500	F	22	S	35000	-0.70446	N
2614	M	62500	M	60	S	15000	-1.29617	N
2615	M	62500	F	38	P	15000	1.28086	Y
2616	M	62500	M	27	P	15000	-1.22876	N
2617	M	62500	M	56	S	15000	0.16247	<NA>
2618	M	62500	F	37	P	15000	0.72189	U
2619	M	62500	M	25	S	7500	0.83264	Y
2620	M	62500	F	34	S	35000	0.70951	<NA>
2621	M	15000	F	45	P	15000	0.73180	<NA>
2622	M	15000	M	45	S	35000	0.14900	<NA>
2623	M	15000	F	18	S	35000	1.28615	Y
2624	M	15000	M	19	S	NA	1.21003	U
2625	M	15000	F	35	P	7500	0.28762	U
2626	M	15000	M	18	S	35000	-0.50889	Y
2627	M	15000	F	44	P	NA	-0.38686	U
2628	M	15000	M	33	S	35000	-0.71349	<NA>
2629	M	15000	F	19	S	NA	-0.57723	U
2630	M	15000	M	65	P	35000	0.43236	Y
2631	M	15000	M	54	P	35000	0.73822	U

2632	M	15000	F	45	S	15000	1.08531	U
2633	M	15000	M	60	P	15000	0.38846	<NA>
2634	M	15000	M	26	S	15000	-1.08862	N
2635	M	15000	F	26	PS	35000	-1.29617	N
2636	M	15000	F	33	P	7500	0.12468	U
2637	M	15000	F	38	S	7500	-0.63807	<NA>
2638	M	15000	F	57	P	2500	-0.15649	U
2639	M	15000	M	24	S	15000	-0.59665	<NA>
2640	M	15000	M	36	S	NA	-0.57165	N
2641	M	25000	M	41	P	NA	-1.30045	U
2642	M	25000	M	32	S	NA	0.75873	Y
2643	M	25000	M	21	S	15000	0.80466	U
2644	M	25000	F	40	S	35000	-0.67588	N
2645	M	25000	F	35	P	15000	1.41575	U
2646	M	25000	F	19	P	7500	-0.53990	N
2647	M	25000	F	26	S	15000	-0.52483	U
2648	M	25000	F	68	P	35000	1.12768	U
2649	M	25000	M	25	S	7500	0.08413	A
2650	M	25000	M	60	P	35000	-0.98577	N
2651	M	25000	F	19	S	7500	0.13353	<NA>
2652	M	25000	M	32	P	35000	1.29393	Y
2653	M	25000	F	42	P	7500	1.43577	Y
2654	M	25000	M	42	P	15000	-0.82448	<NA>
2655	M	25000	M	47	P	35000	-0.11712	<NA>
2656	M	25000	F	20	S	15000	1.61371	U
2657	M	25000	F	55	P	7500	-0.33917	Y
2658	M	25000	F	47	P	15000	0.78755	U
2659	M	25000	M	45	P	15000	0.82865	<NA>
2660	M	25000	M	27	S	7500	-1.74401	<NA>
2661	M	87500	F	55	S	35000	1.44322	Y
2662	M	87500	M	27	S	75000	1.24288	N
2663	M	87500	F	40	S	15000	-0.09014	Y
2664	M	87500	M	42	S	75000	-0.43601	N
2665	M	87500	F	21	S	35000	0.95741	Y
2666	M	87500	M	18	S	15000	0.16797	N
2667	M	87500	M	38	P	15000	1.33029	U
2668	M	87500	F	22	P	35000	0.33831	U
2669	M	87500	F	67	P	7500	-1.29617	N
2670	M	87500	M	33	P	15000	-1.02512	Y
2671	M	87500	M	42	PS	125000	1.31800	Y
2672	M	87500	F	27	S	35000	1.47693	Y
2673	M	87500	F	36	PS	75000	1.29875	Y
2674	M	87500	F	20	PS	75000	-0.60930	U
2675	M	87500	M	21	S	75000	-0.49903	N
2676	M	87500	M	26	S	15000	0.51739	Y
2677	M	87500	M	38	P	7500	-1.19458	U

2678	M	87500	F	41	P	35000	1.54243	Y
2679	M	87500	F	57	P	35000	1.54947	Y
2680	M	87500	F	21	P	35000	1.35000	Y
2681	M	15000	M	34	P	15000	-1.33066	N
2682	M	15000	M	51	P	7500	-1.25795	N
2683	M	15000	F	25	P	2500	0.35489	Y
2684	M	15000	F	55	P	15000	-0.58617	<NA>
2685	M	15000	M	46	P	15000	1.43143	<NA>
2686	M	15000	F	62	P	15000	1.44059	Y
2687	M	15000	M	32	S	15000	1.51655	Y
2688	M	15000	F	43	P	35000	-0.17755	Y
2689	M	15000	M	56	P	15000	1.46057	Y
2690	M	15000	F	22	S	75000	0.87335	<NA>
2691	M	15000	M	20	P	35000	0.85425	Y
2692	M	15000	F	21	S	35000	1.22231	Y
2693	M	15000	F	19	P	2500	-0.33442	U
2694	M	15000	F	41	P	7500	-0.61449	U
2695	M	15000	M	42	S	35000	-0.00233	U
2696	M	15000	M	42	P	15000	-1.26247	N
2697	M	15000	F	28	P	15000	1.32950	Y
2698	M	15000	F	44	P	75000	1.42045	Y
2699	M	15000	M	21	S	75000	0.18315	<NA>
2700	M	15000	M	20	PS	35000	1.38179	Y

2.2.3.1 Social Issues

Writing of her work with the Landless People's Movement, Gaels Nijinsky stresses the cultural nature of mathematics and the power the subject gives to those who teach and do academic mathematics while subjugating practitioners of indigenous or "street" mathematics (Nijinsky 1997). Benny follows a similar path when detailing her journey from a believer that mathematics is value and culture-free to a person ques- motioning the power it holds over the adult population, particularly mature students. In her words, "I became committed to the notion that adult education has a vital role to play in a democratic society. I became convinced that the low level of numeracy in our society limit participation and critical citizenship (Benny 1998, p. 156)." In a separate paper, Benny argues that the education system perpetuates a limiting social class and working-class adults who return to study lack the social support system needed to prevail (Benny 1999). This is reminiscent of Parker's study on successful students—one of the key elements she found was the existence of a backup person willing to shoulder responsibilities so that the adult student is free to study. Coben's paper on Freida and mathematics education has been cited earlier in this chapter. She has also researched extensively on the Grampians view of "com- Mon sense" and its relation to mathematics education. Like Benny, Cob-

en argues strenuously that knowledge of mathematics is socially powerful and possessing it carries prestige along with an assumption of superior intelligence in general. Common sense, on the other hand, is devalued and individuals who rely on it for mathematical decisions see themselves, and are seen by others, as socially inferior to individuals who can "do" academic mathematics (Cob-en 1999). Dias investigated the applicability of Freire's liberation pedagogy to a basic education program in Brazil. The teachers were accustomed to using his work in a literacy program but struggled to transfer that experience to the teaching of math- schematic. Teacher discussions revealed "the existence of strong ideological beliefs about how mathematics should be taught, who can learn it, and who knows it